Country experience: United States (Chapter 10)

Country experience: United States

10.88. In 2011, the United States Bureau of Economic Analysis (BEA) jointly engaged with the United States Bureau of Labour Statistics (BLS) in a microdata-linking study of multinational enterprises based in the United States.[1] The aim of the project was to uncover more about the geographic, occupational and wage distributions of employment by United States-based multinational enterprises. While the study does not directly relate to statistics on international trade in services, the methodology employed demonstrates how such linking is possible, and can open the door to future extensions and applications in the area of FATs and statistics of trade in services by mode of supply.

10.89. The project combined firm identifiers from the BEA 2004 bench-mark survey of United States direct investment abroad with BLS microdata on employment in establishments of those firms, for a pilot group of the largest United States-based multination-al manufacturing enterprises. BEA data on multina-tional enterprises based in the Unit-ed States were used to match a pilot group of United States parent firms of multinational enterprises with their establishments that appeared in BLS data. The pilot group con-sisted of the largest 500 United States-based multinational manufac-turers (by primary industry of the United States parent) in the firm-level data of BEA from the 2004 benchmark survey of United States direct investment abroad. The efforts to match were based primarily on the names, locations and employer identification numbers (EIN)[2] provided in that survey.

10.90. Identification of the estab-lishments of firms in the pilot group were based on the BLS quarterly census of employment and wages (QCEW), which collects information on total em-ployment by month and total wage bills for all United States establishments covered under the unemployment insurance programme, as well as detailed information on the industry of main activity (at the six-digit North American Industry Classification System (NAICS) level) and geographic location (at the census block level) for each establishment. Those establishments were then matched with the establishments sampled in the BLS occupational employment statistics (OES) survey, which provides data on the distribution of their employees' occupations and hourly wages.

10.91. The automatic matching efforts entailed matching EINs between BEA firm-level data and BLS establishment-level data. BEA firm-level data contain only one or two EINs per firm, while BLS establishment-level data contain one EIN per establishment, and the establishments of each firm may report many different EINs in the BLS data. Thus, additional EINs for each firm were found by matching firm names and addresses with the establishment names and addresses in the QCEW, as well as by using enterprise family lists (lists of employers that operate under differ-ent names but are part of the same enterprise) from other BLS programmes, enterprise information in the Compustat database and other sources of data on firms.

10.92. Such automated matching procedures are imperfect, however: some firms are matched with unrelated establishments, while other firms appear to be matched with only a fraction of their establishments in the QCEW. Accordingly, the lists of all establishments found through automated matching were reviewed manually, and the establishments matched in error were removed. Then the QCEW was searched for additional establishments identified from enterprise websites, filings from the Securities and Exchange Commis-sion (SEC) and enterprise annual reports.

10.93. The firms identified in BEA surveys were considered to be "adequately matched" with BLS establishment data if the total employment of all matched BLS establishments for a particular firm was within 20 percent of the total employment reported in the BEA survey. The establishments of the adequately matched firms were then linked with establishments in the OES survey data. Although a large portion of the United States employment by United States-based multinational manufacturing enterprises was found in the QCEW and OES data, the missing employ-ment was not random. The multinational enterprises that were found to match with the BLS establishment data were different from the firms that remained un-matched. For example, it was more difficult to match privately owned firms (which generally disclose less in-formation than publicly owned firms and, in particular, do not file annual reports with SEC) and firms that have undergone liquidation or reorganization since the survey date.

10.94. Furthermore, the sample design of the OES survey is intended to produce estimates at the State and industry levels, not to provide estimates for the unusual subsample of multinational firms examined in the microdata-linking study. The OES survey collects information from a sample of establishments rotating in 3-year panels, with sample probabili-ties that vary by establishment size. The probability that a larger establishment will be included in the OES sample over the course of three years is greater than the probability that a small establishment will be included. That difference could affect the distribution of occupations and wages in the subsample of establishments that are matched with mul-tinational firms. Consequently, the sample and non-sample variance of those estimates may be large.

10.95. Future research could be based on other infor-mation collected by BEA, such as the magnitude and scope of FDI, the amount of intrafirm trade, the destination countries for FDI, the enterprises' degree of "global engage-ment" and their trade in services.

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[1] Elizabeth Weber Handwerker, Mina M. Kim and Lowell Mason, "*Domestic employment in U.S.-based multinational companies*," *Monthly Labor Review*, October 2011. Available from www.bls.gov/opub/mlr/2011/10/art1full.pdf.

[2] The Internal Revenue Service assigns the Employer Identification Number (EIN), or Federal Tax Identification Number, to identify a business entity. Most large companies with many establishments report more than one EIN to the Bureau of Labor Statistics Quarterly Cen-sus of Employment and Wages. The one or two EINs that companies report to the Bureau of Economic Analysis in the *Benchmark Survey of U.S. Direct Investment Abroad* generally match only a fraction of those large companies' es-tablishments.