Monthly Wholesale Trade Survey - Sampling Frame

The sampling frames used for the Monthly Wholesale Trade Survey and the Annual Wholesale Trade Survey have two types of sampling units: Employer Identification Numbers (EINs) and large, multiple-establishment firms. Both sampling units represent clusters of one or more establishments owned or controlled by the same firm. The information used to create these sampling units was extracted from data collected as part of the 2007 Economic Census and from establishment records contained on the Census Bureau's Business Register as updated to December 2010. The next few paragraphs give details about the Business Register; the distinction between firms, Employer Identification Numbers EINs, and establishments; and the construction of the sampling units.
The Business Register is a multi-relational database that contains a record for each known establishment that is located in the United States or one of its territories and has paid employees. An establishment is a single physical location where business transactions take place and for which payroll and employment records are kept. Groups of one or more establishments under common ownership or control are firms. A single-unit firm owns or operates only one establishment. A multiunit firm owns or operates two or more establishments. The treatment of establishments on the Business Register differs according to whether the establishment is part of a single-unit or multiunit firm. In particular, the structure of an establishment's primary identifier on the Business Register differs depending on whether it is owned by a single-unit firm or by a multiunit firm.

A single-unit firm's primary identifier is its Employer Identification Number. The Internal Revenue Service (IRS) issues the Employer Identification Number, and the firm uses it as an identifier to report social security payments for its employees under the Federal Insurance Contributions Act (FICA). The same act requires all employer firms to use Employer Identification Numbers. Each employer firm is associated with at least one Employer Identification Number and only one firm can use a given Employer Identification Number. Because a single-unit firm has only one establishment, there is a one-to-one relationship between the firm and the Employer Identification Number. Thus the firm, the Employer Identification Number, and the establishment all reference the same physical location and all three terms can be used interchangeably and unambiguously when referring to a single-unit firm.

For multiunit firms however, a different structure connects the firm with its establishments via the Employer Identification Number. Essentially a multiunit firm is associated with a cluster of one or more Employer Identification Numbers and Employer Identification Numbers are associated with one or more establishments. A multiunit firm consists of at least two establishments. Each firm is associated with at least one Employer Identification Number and only one firm can use a given Employer Identification Number. However, one multiunit firm

may have several Employer Identification Numbers. Similarly, there is a one-to-many relationship between Employer Identification Numbers and establishments. Each Employer Identification Number can be associated with many establishments but each establishment is associated with only one Employer Identification Number. Because of the possibility of one-to-many relationships, we must distinguish between the firm, its Employer Identification Numbers and its establishments. The multiunit firm that owns or controls a particular establishment is identified on the Business Register by way of the establishment's primary identifier.

The primary identifier of an establishment owned by a multiunit firm consists of a unique combination of an alpha number and a plant number. The alpha number identifies the multiunit firm, and the plant number identifies a particular establishment within that firm. All establishments owned or controlled by the same multiunit firm have the same alpha number. Different multiunit firms have different alpha numbers, and different establishments within the same multiunit firm have different plant numbers. The Census Bureau assigns both the alpha number to the multiunit firm and plant numbers to the corresponding establishments based on the results of the quinquennial economic census and the annual Company Organization Survey.

To create the sampling frame, we extract the records for all employer establishments located in the United States and classified in the Wholesale Trade sector as defined by the 2007 North American Industry Classification System. For these establishments we extract sales, payroll, employment, name and address information, wholesale type of operation code (TOC), as well as primary identifiers and, for establishments owned by multiunit firms, associated Employer Identification Numbers. We use the Type of Operation Code to distinguish between different types of wholesale establishments. To create the sampling units for multiunit firms, we aggregate the economic data of the establishments owned by these firms to an Employer Identification Number level by tabulating the establishment data for all wholesale establishments associated with the same Employer Identification Number. Similarly, we aggregate the data to a multiunit firm level by tabulating the establishment data for all wholesale establishments associated with the same alpha number. In some cases, a multiunit firm has establishments active in more than one wholesale type of operation (merchant wholesalers excluding Manufacturer's Sales Branches and Offices, Manufacturer's Sales Branches and Offices, or agents and brokers). In these situations, separate Employer Identification Number level and firm level sampling units are created for each type of operation. No aggregation is necessary to put single-unit establishment information on an Employer Identification Number basis or a firm basis. Thus, the sampling units created for single-unit firms simultaneously represent establishment, Employer Identification Number, and firm information. In summary, the sampling frame is a complex amalgam of establishments, Employer Identification Numbers, and firms.