

The U.S. Census Bureau's economic census (EC), which collects detailed information from more than 4 million establishments every 5 years, is currently undergoing a substantial re-engineering effort. Historically self-administered, the EC began using electronic collection modes in the early 1990s, in a multi-mode setting along with paper questionnaires. For the 2017 Economic Census, data collection will be entirely via the Web. An additional undertaking in this re-engineering effort introduces the collection of detailed product lines implementing the North American Product Classification System, a comprehensive demand-oriented product classification launched jointly among the statistical agencies of the United States, Canada, and Mexico. Together these initiatives present both challenges and opportunities. The NAPCS framework, which requires accounting for any and all goods and services a business sells, presents a challenge for creating a questionnaire design that collect this amount of detail with minimal response burden. However, a Web-based application offers the opportunity for unprecedented tailoring of questionnaires. To address these challenges and opportunities, we analyze product information reported by businesses in the 2012 Economic Census to discern product reporting patterns associated with industries in-scope to the economic census. In addition, because the NAPCS framework captures the sale of goods and services, regardless of the industry in which they are produced, we also examine dispersion of individual product lines across industries. These reporting patterns may be leveraged in the 2017 Economic Census electronic instrument design, providing a familiar starting point for respondents to begin supplying product-level receipts. In this paper, we describe results from these analyses, and their use in conjunction with usability testing, to recommend an effective design for obtaining product-level detail from business respondents.