Every five years, the U.S. Census Bureau conducts an economic census to provide a snapshot of the U.S. economy, along with benchmark data for other business surveys it conducts. The 2017 Economic Census will usher in a new set of challenges for the Census Bureau. For 2017, the Economic Census will move to an all-Web data collection, eliminating paper-based response, and introduce a new data collection. To foster this transition, a comprehensive, multi-method research program was undertaken, based on collaboration with subject matter experts, datacollection operations staff, and methodology researchers, to redesign the data-collection instruments and evaluate the new data collection procedures. The Census Bureau previously had different collection instruments for large and small businesses meant to capture the unique reporting needs for both types of businesses. For 2017, small and large businesses will share a single, re-engineered system. The development and evaluation of the new data collection system employed exploratory research, usability testing, and analysis of response data from previous surveys. The redesign of these instruments for the Web employed iterative usability testing to incrementally assess and make changes to the instruments. This process illuminated the interaction between content, production, and instrument design, and ushered in opportunities for, as well as challenges to, having research results overtly guide redesign decisions. This presentation will share the research process for redesigning the new instruments and data collection approaches, present preliminary results, and discuss some of the challenges in joining the efforts of the various stakeholders.