

Partial Synthesis of the Longitudinal Employer-Household Dynamics (LEHD) Database*

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Abstract

We describe ongoing efforts to develop public-use partially-synthetic microdata based on the US Census Bureau's Longitudinal Employer-Household Dynamics (LEHD) database. These are longitudinal linked data on employers and employees, constructed from a variety of administrative and survey data sources. Confidential characteristics of workers, firms, and jobs are replaced with synthetic values. The graph of employment relationships is preserved, to the extent that doing so does not compromise privacy of workers and firms. We describe methods used to generate the synthetic values, and provide a preliminary assessment of utility and disclosure risk in the partially synthetic data.

*This document reports the results of research and analysis undertaken by the U.S. Census Bureau staff. This document is released to inform interested parties of research and to encourage discussion. This research is a part of the U.S. Census Bureau's Longitudinal Employer-Household Dynamics Program (LEHD), which is partially supported by the National Science Foundation Grants SES-9978093 and SES-0427889 to Cornell University (Cornell Institute for Social and Economic Research), the National Institute on Aging Grant R01 AG018854, and the Alfred P. Sloan Foundation. The views expressed on statistical, methodological, or technical issues are those of the authors and not necessarily those of the U.S. Census Bureau, its program sponsors or data providers. Some or all of the data used in this paper are confidential data from the LEHD Program. The U.S. Census Bureau supports external researchers' use of these data through the Research Data Centers (see www.ces.census.gov). For other questions regarding the data, please contact Jeremy S. Wu, Program Manager, U.S. Census Bureau, LEHD Program, Demographic Surveys Division, FOB 3, Room 2138, 4700 Silver Hill Rd., Suitland, MD 20233, USA. (Jeremy.S.Wu@census.gov <http://lehd.dsd.census.gov>).

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