

Fredrik Andersson

Financial Economist - Credit Risk Modeling

Risk Analysis Division, Office of the Comptroller of the Currency, Department of Treasury

Phone: (202) 874-4725

Cell: (571) 723-5432

Fax: (202) 874-5394

E-mail: Fredrik.Andersson@occ.treas.gov

TITLE: Formal Privacy Guarantees and Analytical Validity of OnTheMap Public-use Data

ABSTRACT: OnTheMap is an interactive mapping application developed by the U.S. Census Bureau's LEHD Program that displays where people live and work together with other employer and employee characteristics. The graphical user interface allows the construction of sophisticated queries to a geographically integrated employer-employee database whose core table is an origin-destination table resolved to the Census block level. OnTheMap is the first official data application ever released by a statistical agency that relies on synthetic data as its primary method of confidentiality protection. This paper documents the data development procedures, the disclosure avoidance protocol, and the analytical validity of the public-use data files incorporated into OnTheMap Version 3 (released September 2008). The statistical disclosure limitation procedure offers formal privacy guarantees based on the concept of differential privacy. This paper documents the level of privacy protection and the analytical validity of the released data.