

Technology Use and Worker Outcomes: Evidence from Linked Employer Employee Data

Javier Miranda

U.S. Census Bureau

Adela Luque

Urban Institute

CES Technical Notes

CES-TN-2008-01

In the course of our project we have produced several papers using the Survey of Manufacturing Technologies, the Business Register and the Decennial Census in combination with external Unemployment Insurance Earnings Record files from the State of Maryland. In this Technical Report we discuss the benefits to the Census Bureau based on the results of this project. We focus on four sets of results. First, economic survey data can be successfully integrated with Decennial and administrative record data to increase the value of existing economic data products. We show that the resulting sample sizes are sufficiently large to justify the effort. Second, we demonstrate that the Survey of Manufacturing Technologies (SMT) has a significant longitudinal component that approximates 15% of the sample of plants. The sample is not representative of the population of surviving firms of similar characteristics. However, sample weights can be created to address this issue. Third, we show the viability of using the SMT for single state studies. We find that the SMT Maryland sample is fairly representative of manufacturing plants in Maryland although they tend to be somewhat younger and larger than the average for the state. Fourth, we show that the composition of the workforce varies considerably across plants of different technological intensity. We show how integrated microeconomic data can be used to shed light on the underlying factors behind this variation.

Relevant Datasets: SMT, Decennial

Required Dataset Permissions: SMT 1988, 1991, and 1993;

SSEL 1985-1997

CES Technical Notes may contain confidential data and, thereby, disclosure is prohibited. The opinions, conclusions and suggestions expressed in these notes are those of the authors and do not necessarily represent those of the CES or the U.S. Census Bureau. Researchers (CES staff, SSEs and other Census

employees) who wish to access the full text of a technical note or submit their own technical note should contact CES.Technical.Notes.List@census.gov.