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

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Abstract

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 succesfully 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

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