



RUTGERS-NEW BRUNSWICK

Institute for the Study of Employee  
Ownership and Profit Sharing

School of Management and Labor Relations

RESEARCH BRIEF

# Employee Share Ownership, Management Practices, and Labor Productivity

## An analysis using establishment-level microdata from the U.S. Census

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# Driving Question

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Are ESOPs—and the way they are implemented—associated with measurable gains in labor productivity?

## Background

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We compiled the largest and most comprehensive data to date on broad-based employee equity ownership at both privately held and publicly traded companies in U.S. manufacturing industries. Specifically, we combined three restricted U.S. Census micro-databases—the 2010 and 2015 Census Management and Organizational Practices Survey (MOPS), the American Survey of Manufactures (ASM), and the U.S. Longitudinal Business Database (LBD)—with the U.S. Department of Labor’s Form 5500 Pension Database.

## What the Data Show

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We compare 37,800 non-ESOP manufacturing establishments in 21,500 unique companies to 6,200 ESOP manufacturing establishments in 1,000 ESOP companies.

We estimate that ESOP adoption increases labor productivity at the workplace by 5.6 – 6.7%, accounting for workplace managerial and organizational practices, number of employees, capital and materials inputs into production, union status, and geography.

This is pathbreaking research, given the large nationally representative sample of workplaces, in contrast to prior productivity studies that were limited to only publicly traded firms or select samples of privately held firms.

Our finding that ESOPs increase labor productivity is robust to checking numerous alternative specifications including:

- Alternative workplace labor productivity measures
- Continuous measurement of employee ownership as ESOP total assets per active employee

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- Alternative econometric models including instrumental variables regressions to identify causality.

ESOPs are the most common form of broad-based employee equity ownership plan today in the U.S. The manufacturing industry contains the greatest prevalence of ESOPs in the United States with **over 20% of all U.S. ESOPs in manufacturing**. According to the U.S. Department of Labor’s Form 5500 records for 2022, among the 10.9 million employees in ESOPs, 2.5 million or 22.9% are in manufacturing firms.

Over **20%** of all U.S. ESOPs are in manufacturing.

## Key Findings

Summary	
ESOPs are associated with meaningful productivity gains	ESOP adoption increases labor productivity by approximately <b>5.6%–6.7%</b> .
Greater employee ownership stakes amplify performance	A <b>\$100,000 increase in ESOP assets per active employee</b> is associated with a <b>25.7%–26.5% increase in labor productivity</b> (2010–2015 average).
Combining ownership with performance pay produces the strongest results	Adopting an ESOP while simultaneously maintaining <b>broad-based group performance pay</b> magnifies the labor productivity increase of ESOP adoption to <b>12.98%</b> (over 2010-2015).

In our analysis, we measure workplace labor productivity as the total value of shipments and inventory divided by total hours worked. Our ESOP adoption measure is whether the workplace adopted an ESOP between 2010 and 2015. Our measures of management and organizational practices capture the presence of proactive management practices including the extent and frequency of performance goal monitoring, nature of remedial action in response to problems in the production process, monitoring of performance goals, presence of broad-based information sharing among workers at the workplace, and presence of broad-based group-based performance bonuses for workers at the workplace (broad-based means inclusive of non-managerial workers).

Our study represents a groundbreaking analysis of ESOP productivity effects.

Past studies of employee ownership performance outcomes have been based primarily on publicly traded companies where employee ownership percentages are low, or on small surveys and samples limited in their size and generalizability (publicly traded companies have very small percentages of the company owned by employees, at 2-3% on average). No prior studies used high-quality representative data on closely-held firms, which are the majority of U.S. ESOPs (in number of ESOPs, not employees covered). Over 90% of U.S. ESOP plans are within closely-held companies. Our study also consists of the first introduction of the Census Management and Organizational Practices Survey (MOPS), which is the largest management survey ever conducted of U.S. manufacturing workplaces, into the employee ownership research landscape.

## What are ESOPs?

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An ESOP is a tax-advantaged retirement plan where employees are granted company stock without typically buying the stock with their own wages or savings. ESOPs were institutionalized into U.S. law through the Employee Retirement Income Security Act of 1974 (ERISA). In an ESOP, ERISA allows companies to contribute company stock, or money to buy stock, or to use credit to buy stock, to an employee pension trust that holds the stock, so workers generally gain an ownership stake in the company without investing their own money. The company then allocates the shares to employees over time as the workers pass a vesting period (having been at the company for a certain period of time). According to ERISA, all full-time employees at the firm must be included in the plan, making it a broad-based form of employee ownership. ESOPs have increased steadily over the last several decades in terms of the number of employees and assets. Based on data from the U.S. Department of Labor's Form 5500 firm pension records, between 1999 and 2022, the number of workers in Employee Stock Ownership Plans (ESOPs) grew from 7.8 to 10.9 million, or from 7.2 percent to 8.3 percent of the private sector workforce. Given the increasing prevalence of employee ownership, understanding the relationships between employee ownership, management practices and labor productivity carries great policy significance.

Further detailed results and descriptions of the databases and statistical methodologies can be found in the full Working Paper posted on the SSRN e-library:

[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=6490798](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=6490798)

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