

# RESEARCH BRIEF

Institute for the Study of  
Employee Ownership and Profit Sharing

## Establishments Which Adopt ESOPs Generally Become Safer Over Time

Preliminary evidence from a 2023 research project indicates two major results:

1. Establishments which already have an ESOP tend to have fewer workplace safety incidents – across industry, size, unionization, and sector
2. Establishments which adopt an ESOP show statistically significant reduction in workplace injuries and illnesses around two years post adoption.

The data supporting these results come from OSHA's Injury Tracking Application, an annual reporting requirement for nearly 250,000 establishments across the United States of America. Injury and illness data were matched to ESOP data from the U.S. Department of Labor's Form 5500 Research Files for the years 2016 thru 2019.



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Disclaimer: The economic research that is discussed on this page represents the views of the authors and does not indicate concurrence either by other members of the Board's staff or by the Board of Governors. The economic research and their conclusions are often preliminary and are circulated to stimulate discussion and critical comment.

## How is workplace injury and illness measured?

This study uses the standard calculation from the Bureau of Labor Statistics of the injury rate per 100 full time employees per year. It is calculated for each establishment as:

$$\frac{(\text{total annual injuries and illnesses}) \times (100 \text{ workers}) \times (40 \text{ hours/week}) \times (50 \text{ weeks})}{\text{total hours worked by all employees for the year}}$$

This measurement is very sensitive to establishments with few employees – in fact, it is biased upward – so the following two sample restrictions were applied to reduce statistical noise and bias by excluding:

- Establishments with less than 8 employees
  - Establishments where the average hours worked per week was either less than 20 hours per week or greater than 100 hours per week
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## Who does the study's sample represent?

Out of the approximately 6,400 ESOP firms filed annually using the Form 5500, researchers included 3,166 ESOP firms after applying the sample restrictions. These firms included 40,889 ESOP establishments, which were compared to 212,044 non-ESOP establishments over the four-year study period.

Two industries held the bulk (77%) of ESOP establishments:

- Manufacturing (7,345)
- Retail trade (24,081)
- Utilities (2,338) & wholesale trade (2,344) – combined 11.4% of the sample

Five large, public firms hold ESOP filings, which are overrepresented in the sample: Target, Lowe's, Publix, Wal-Mart, and Costco. Combined, they comprise 44% of the ESOP establishments in the sample, and 74% of the ESOPs in the retail trade industry.

### Key Learning #1

## How much safer is an ESOP establishment compared to a traditionally owned one?

An ESOP is only one of many factors which determine an establishment's healthy & safety outcomes. Accordingly, this study controls for:

- Industry
- Firm size
- Union status
- Weekly hours worked per employee
- Public/private ownership
- Average # of employees for the year

After these controls are applied to the sample, the researchers' models estimate that an establishment with an ESOP is statistically associated with between -0.439 and -0.655 as many workplace safety incidents per 100 full time workers compared to an establishment with similar characteristics.

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## Is the size of this effect economically significant?

These estimated effects represent a 9-13% decrease in workplace safety incidents relative to the overall mean of 4.87 per year.

Over 3.5 million workplace injuries and illnesses occur every year in the United States of America. These estimates point to a **reduction of between 315,000 and 455,000 workplace safety incidents** if all firms were to have ESOPs. The cost of these incidents looms larger than the combined cost of treating all forms of cancer. At the nation-wide level, any reduction in this figure is a welcomed one.

In terms of magnitude, the estimate effect cited above is comparable to the estimate of a union's effect on workplace safety outcomes – who are known to advocate for safer working conditions.

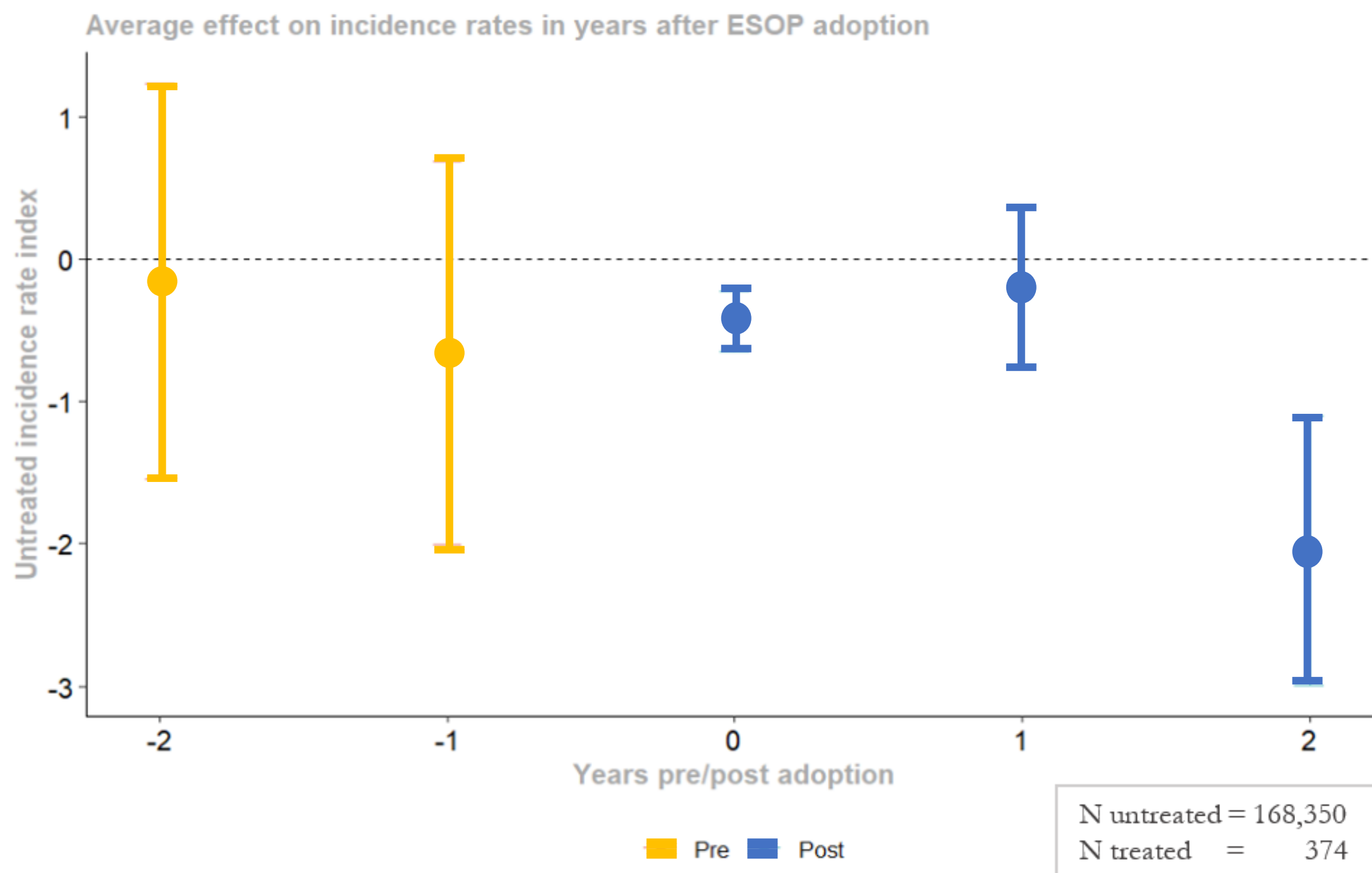
A natural question is whether these estimates show that ESOPs actually cause increased safety, or perhaps just indicate that safer firms are more likely to adopt ESOPs. The pre/post comparisons on the next page help answer this question.

Key Learning #2

## Does the adoption of an ESOP cause an establishment to become safer?

To answer this question, the researchers reduced the sample to establishments that appeared in the data for at least two out of the four years. Then, by measuring the average incidence rates of companies before and after the adoption of an ESOP, they could estimate whether – and when - there was a reduction in the incidence rate after the ESOP’s adoption. We base this on 374 companies that adopted an ESOP between 2016 and 2019.

Looking at the image below, there is a **significant reduction in the incidence rates in the second year after adoption of an ESOP**. The bar for each year represents the range of uncertainty around an estimate, and the finding that the bar is fully below zero in the second year after adoption means we are highly confident that workplace safety is increasing in that year.



## Conclusion

In general, establishments who have adopted an ESOP have fewer workplace related injuries and illnesses compared to establishments with similar characteristics. Further, establishments which adopt an ESOP generally become safer over time.

These findings may be explained by improved employee turnover, alignment of employer/employee incentives, and/or increased involvement of employees in managerial decision making.

These results, taken in combination with other employee ownership research that shows higher performance, job stability, and job quality in ESOP firms, suggest that ESOPs may offer a multi-dimensional solution to several contemporary economic challenges.

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