

# Help Your Employees, Help Your Firm: Evidence from U.S. Paid Sick Leave Mandates

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## Abstract

This paper exploits the staggered implementation of state-level paid sick leave (PSL) mandates to assess their real effects on U.S. corporations. We find that employees' better access to sick pay leads to higher firm productivity and profitability. First, we show that the positive effects on performance are more pronounced for firms with more expensive labor. The results suggest that employees who prefer sick pay to incremental pecuniary compensation will have an incentive to exert more efforts, resulting in better firm performance. Second, we show that the generosity of PSL boosts firm performance by improving employee health. To this end, we find that the performance improvement is stronger for firms operating in industries which tend to require physical presence in the workplace. Moreover, our main results are largely driven by firms headquartered in counties with higher social capital, which are less prone to moral hazard stemming from PSL. Finally, additional tests reveal that the increased PSL coverage is associated with higher firm value and greater use of leverage. Overall, our paper demonstrates a Pareto improvement resulting from the provision of fringe benefits, and it contributes to the recent debate on the effectiveness and efficacy of PSL during the COVID-19 crisis.

## Motivation

- The U.S. is one of only three OECD countries which do not provide universal access to PSL (OECD, 2020).
  - PSL is most wanted by employees in the U.S. during normal times, and plays a vital role during the COVID-19 pandemic.
  - 12 states have implemented a PSL mandate from 2008 to 2019.
- ⇒ Natural to evaluate the first-order impacts of PSL on corporations.
- ↳ On the one hand, introducing PSL improves employees' health (**Health**). Moreover, as part of the compensation package, PSL as an important type of fringe benefit may elicit higher efforts by employees (**Incentive**).
- ↳ On the other hand, extant theory suggests that firms should minimize labor cost including employee benefits to boost firm value (**Cost**).
- Empirically, what are PSL's equilibrium effects on firm performance? And why?

## Sample

- 37,930 U.S. listed firms during 2004-2019.
- Firm-level accounting information: CRSP-Compustat merged database.
- State-level and industry-level data: Bureau of Economic Analysis.
- We exclude:
  - Companies in financial (SIC codes 6000-6999), utilities (SIC codes 4900-4999) and non-classifiable establishment (SIC codes 9900);
  - Companies headquartered in cities or counties with separate city-level or county-level PSL.

## Methodology (Diff-in-Diff)

- As of 2019, 12 states have adopted PSL mandates.
- These states are *Washington DC (2008)*, *Connecticut (2012)*, *California (2015)*, *Massachusetts (2015)*, *Oregon (2016)*, *Vermont (2017)*, *Arizona (2017)*, *Washington (2018)*, *Rhode Island (2018)*, *Maryland (2018)*, *New Jersey (2018)* and *Michigan (2019)*.
- Employees can earn 1 hour of paid sick leave for per 30 to 40 hours worked with a maximum of about 7 days per year. PSL allows employees to first accumulate, and then use these paid sick days when they (or their relatives) are sick (Pichler, Wen, Ziebarth, 2021).
- Adoption of the PSL mandate **increases employee's total benefit** and the staggered adoption is **exogenous to firm policies**.

$$y_{ijst} = \beta \times PSL_{st}(0, 1) + \Gamma' X_{ijst-1} + \eta_i + \delta_t + \epsilon_{ijst}$$

- $y_{ijst}$ : Measures of productivity and profitability for firm  $i$  in industry  $j$  and state  $s$  in year  $t$ ;
- $PSL_{st}(0, 1)$ : Treatment dummy which takes one once state  $s$  of a firm's headquarter implements a PSL mandate in year  $t$ ;
- $X_{ijst-1}$ : Lagged firm and state-level control variables;
- $\eta_i$ : Firm fixed effects;
- $\delta_t$ : Year fixed effects.
- Robust standard errors clustered at state level.

## Empirical Results

- 1. Firms headquartered in states with mandated PSL enjoy **increases in productivity and profitability**. (Table Below)

	Productivity (Sales/Total Assets)		Profitability (Net income/Total Assets)	
	(1)	(2)	(3)	(4)
$PSL(0, 1)$	0.074*** (0.016)		0.026** (0.009)	
$PSL^{-3}(0, 1)$		-0.009 (0.010)		-0.001 (0.009)
$PSL^{-2}(0, 1)$		-0.001 (0.009)		-0.001 (0.013)
$PSL^{-1}(0, 1)$		0.014 (0.011)		0.006 (0.008)
$PSL^0(0, 1)$		0.042*** (0.010)		0.027* (0.015)
$PSL^{+1}(0, 1)$		0.074*** (0.018)		0.005 (0.009)
$PSL^{+2}(0, 1)$		0.078*** (0.017)		0.017* (0.009)
$PSL^{+3}(0, 1)$		0.036** (0.013)		0.028** (0.012)
Controls	Firm & State	Firm & State	Firm & State	Firm & State
Fixed Effects	Firm & Year	Firm & Year	Firm & Year	Firm & Year
Adjusted R <sup>2</sup>	0.8745	0.8744	0.5064	0.5063
Observations	37,930	37,930	37,930	37,930

- 2. High incomers derive **higher marginal benefit** from PSL provision due to **tax advantage**.

⇒ The effects are **more pronounced** for firms in industries with **more expensive labor and lower labor intensity**. (Table Below)

	Productivity		Profitability	
	(1)	(2)	(3)	(4)
$PSL(0, 1) \times \text{High Incomer}$	0.065*** (0.008)	0.065*** (0.010)	0.028*** (0.008)	0.029*** (0.008)
$PSL(0, 1)$	0.032* (0.019)		0.007 (0.009)	
High Incomer	-0.029** (0.011)	-0.015*** (0.008)	0.047*** (0.007)	0.052*** (0.007)
Controls	Firm & State	Firm	Firm & State	Firm
Fixed Effects	Firm & Year	Firm & State-Year	Firm & Year	Firm & State-Year
Adjusted R <sup>2</sup>	0.8746	0.8776	0.5067	0.5031
Observations	37,930	37,865	37,930	37,865

- 3. The results below suggest a **positive health externality** of PSL to **sick workers' workplaces**. Nevertheless, our results are not mainly driven by employees' individual health improvement.

⇒ Performance improvement is stronger for firms in industries with **lower share of jobs that can be done at home** (Table Below).

	Productivity		Profitability	
	(1)	(2)	(3)	(4)
$PSL(0, 1) \times \text{Less WFH}$	0.066*** (0.015)	0.074*** (0.017)	0.020*** (0.008)	0.024*** (0.008)
$PSL(0, 1)$	0.025 (0.024)		0.010 (0.010)	
Controls	Firm & State	Firm	Firm & State	Firm
Fixed Effects	Firm & Year	Firm & State-Year	Firm & Year	Firm & State-Year
Adjusted R <sup>2</sup>	0.8746	0.8749	0.5064	0.5028
Observations	37,930	37,865	37,930	37,865

- 4. PSL may result in **moral hazard and absenteeism behavior**.

⇒ Firms headquartered in **counties with higher social capital** are **less prone to moral hazard**, hence the effects are **stronger** even after we control for state-year fixed effects.

- 5. Increased PSL coverage is associated with **higher firm value** and **more use of leverage**.

## Conclusions

- Our paper is among the first to provide causal evidence on how **provision of PSL**, an important type of fringe benefit, can **improve firm performance**.
- We offer insights into the policy implications of PSL on micro-level corporate performance and policies during the pre-pandemic period. On top of extant evidence on improved employee welfare and public health, we show that PSL is conducive to firm operations, and **its benefits appear to dominate its costs**.
- Besides **positive externality** on employee health, we highlight an **incentive effect** of PSL which leads to more pronounced performance improvement.
- Overall, firms in states with PSL mandates experience a subsequent **Pareto improvement**.