

# Paid Sick Leave and Use of Clinical Smoking Cessation Tools

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*The content of this presentation is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.*

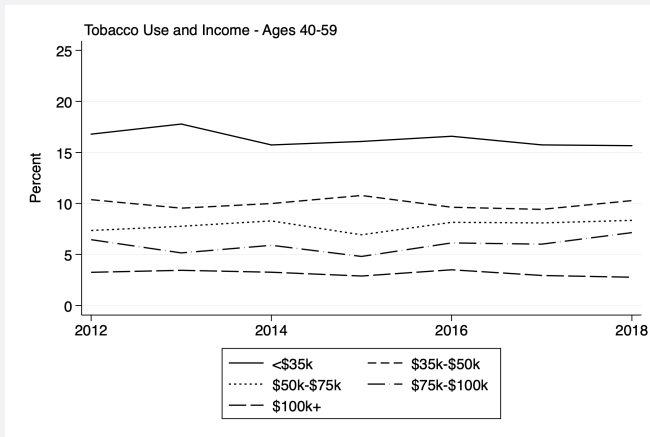
- **Other Tobacco Related Funding:** None

- **Paid Sick Leave and Cancer Prevention**
- **Research question:** Does gaining PSL coverage **improve cancer screening** and **promote smoking cessation**?

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- **Research question:** Does gaining PSL coverage **improve cancer screening** and **promote smoking cessation**?
- **What We Do:** Use plausibly exogenous variation in PSL coverage to estimate effects on **screening mammography**, **colorectal cancer screening**, **tobacco cessation counseling**, and **prescriptions for cessation medications**.

## Motivation

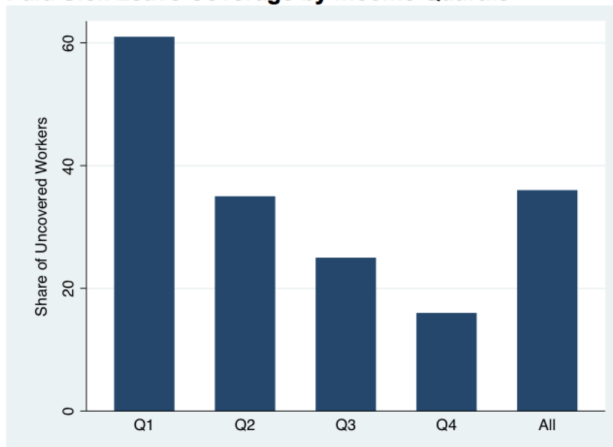
- Why do we care?



Source: Blewett et al. *IPUMS Health Surveys: National Health Interview Survey, Version 7.2 [dataset]*. Minneapolis, MN: IPUMS, 2022.

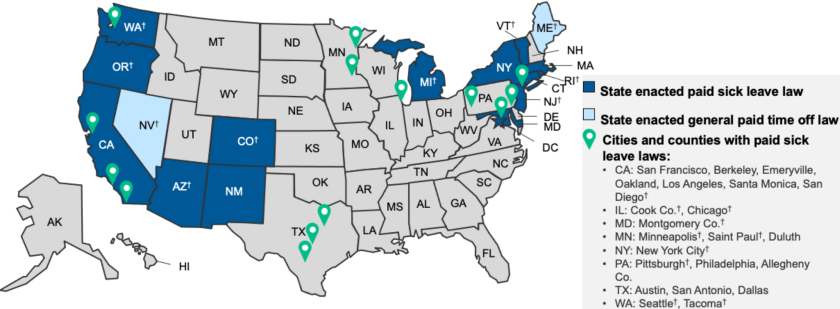
## Paid Sick Leave Mandates

**Figure 1: Share of U.S. Private Sector Workers Lacking Paid Sick Leave Coverage by Income Quartile**



Source: Bureau of Labor Statistics *Employee Benefits in the U.S.*, March 2016

## State and Local Paid Sick Leave Laws, 2021



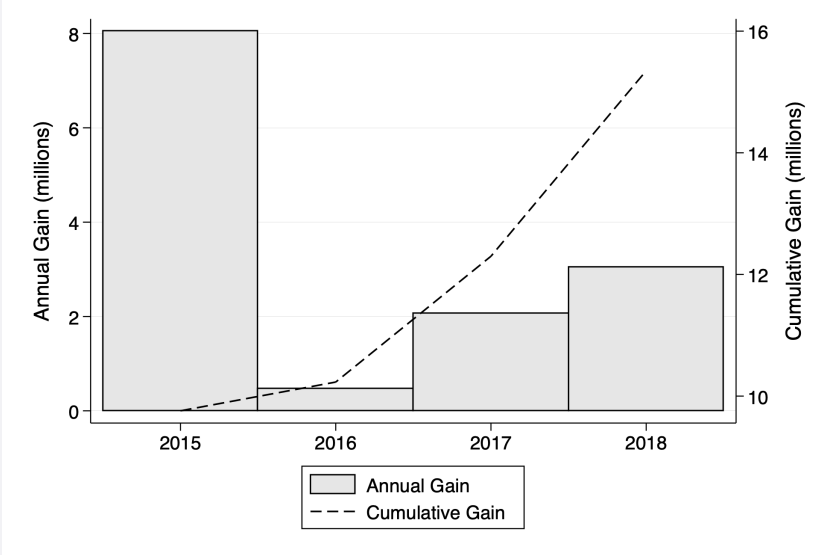
<sup>†</sup>Law permits use of accrued leave for workplace closure or closure of the worker's child's school or childcare associated with a public health emergency.

NOTES: NM's law takes effect July 1, 2022. CO's law for employers with fewer than 16 workers takes effect Jan. 1, 2022; currently in effect for all other CO employers. Allegheny Co.'s law was enacted in Sept. 2021 and will take effect 90 days after the county posts compliance information for employers. The three local laws passed in TX are on hold due to a pending court challenge. All other state and local laws are currently in effect. All state and all local paid sick leave laws except Pittsburgh, Oakland, and Berkeley permit use of paid leave for reasons associated with sexual assault, domestic violence, or stalking, known as "safe time."

SOURCE: KFF analysis of state paid family and medical leave laws; A Better Balance. [Overview of Paid Sick Time laws in the United States](#).



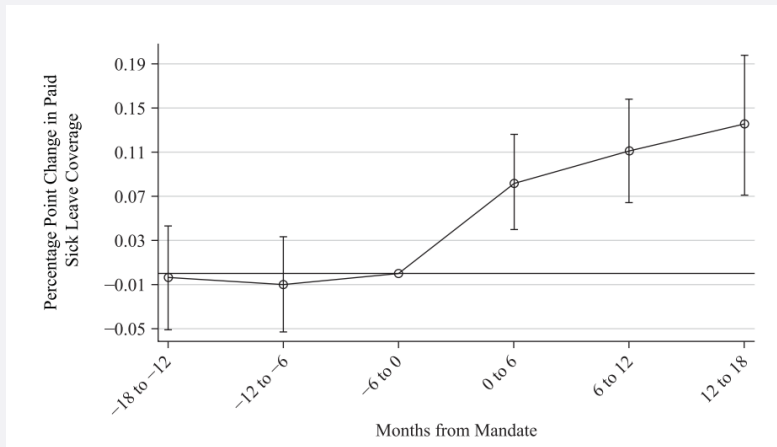
# Paid Sick Leave Mandates





## Mechanisms

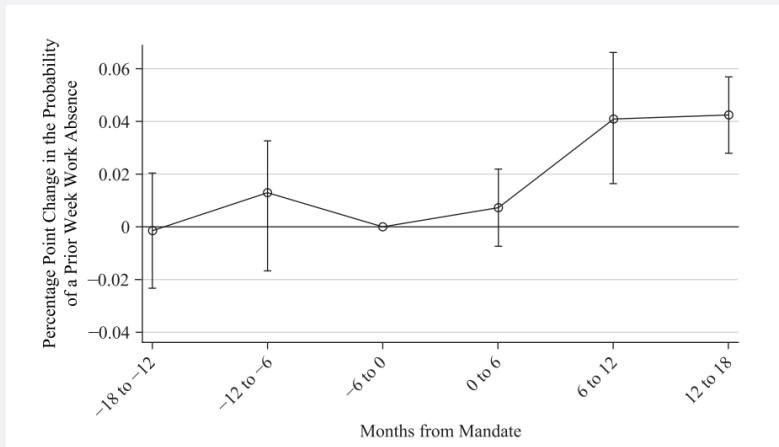
### 1. PSL mandates increase PSL coverage (28-45% increase)



Source: Callison & Pesko (2022), "The Effect of PSL Mandates on Coverage, Work Absences, and Presenteeism." *Journal of Human Resources*, 57(4): 1178-1208.

## Mechanisms

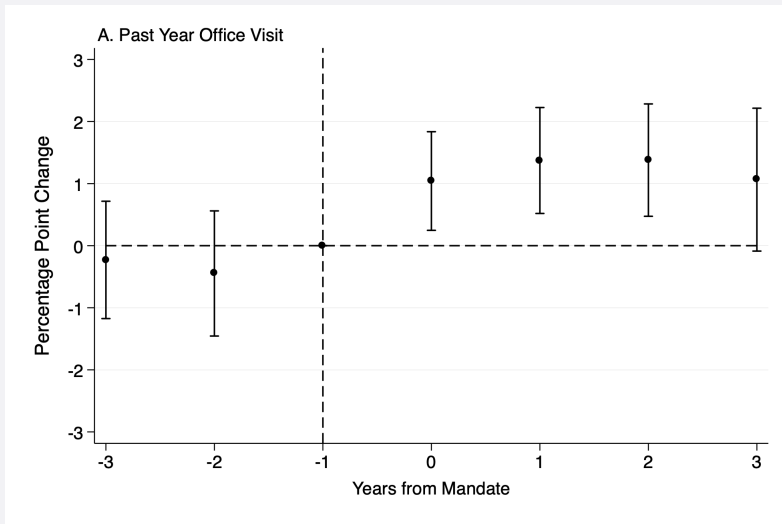
### 2. PSL mandates increase absenteeism (20-62% increase)



Source: Callison & Pesko (2022), "The Effect of PSL Mandates on Coverage, Work Absences, and Presenteeism." *Journal of Human Resources*, 57(4): 1178-1208.

## Mechanisms

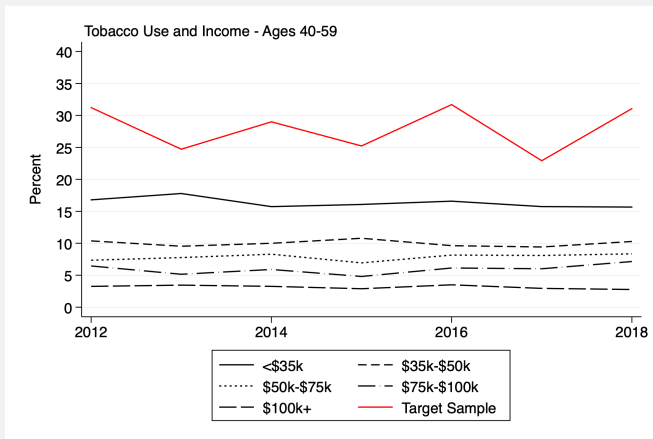
- PSL increases physician visits (2.2% extensive, 1.4% intensive).



- Questions?

- IBM MarketScan Commercial Claims and Encounters Database
  - ▶ 2011-2019
  - ▶ Commercial claims with diagnosis/procedure codes for tobacco use, cessation counseling, and prescription cessation medications.

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  - ▶ Paid hourly
  - ▶ Employed in Agriculture, Forestry, Fishing; Construction; Manufacturing, Durable Goods; Oil & Gas Extraction, Mining
  - ▶ Continuous plan enrollment for 12 months



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## Data

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  - ▶ Continuous plan enrollment for 12 months
- Sample Size
  - ▶ 1.15 million person-years
  - ▶ 292 MSA-by-state units  $\times$  8 years = 2,336 observations

## Research Strategy

- Model: Difference-in-differences

$$Y_{mt} = \alpha + \gamma PSL_{mt} + Z_{mt}\theta + \delta_m + \tau_t + \varepsilon_{mt}$$

- ▶  $PSL$  = Share of MSA population exposed to mandate
  - ▶  $Z$  = age, sex, race, ethnicity, education, ACA, unemployment rate, poverty rate
- 
- Estimation:
    - 1 Two-way Fixed Effects
    - 2 Goodman-Bacon Decomposition (diagnostic) Bacon Decomp
      - 3.8% of weight is treatment timing
    - 3 Callaway & Sant'Anna C & S
- 
- Standard errors clustered at the state level

- Questions?

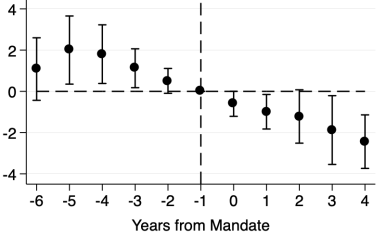
## Descriptive Stats

### Baseline Descriptive Statistics (2012-2014)

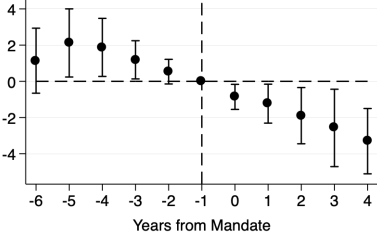
	Mandate	No Mandate	p-value of Difference
<i>MSA Average Outcomes (%)</i>			
Past Year Tobacco Diagnosis	4.97	7.72	<0.001
Past Year Tobacco Diagnosis + History of Dependence	6.17	9.40	<0.001
Past Year Cessation Counseling	0.93	1.50	<0.001
Past Year Cessation Prescription Fill	3.15	4.44	<0.001

# Results

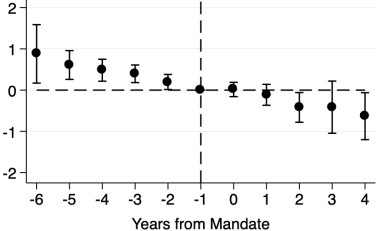
A. Past Year Tobacco Diagnosis



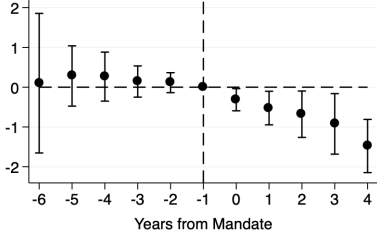
B. Past Year Tobacco Dx + History of Dependence



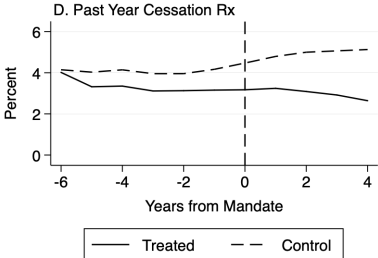
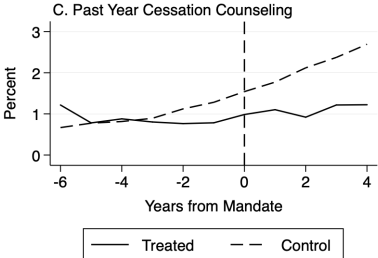
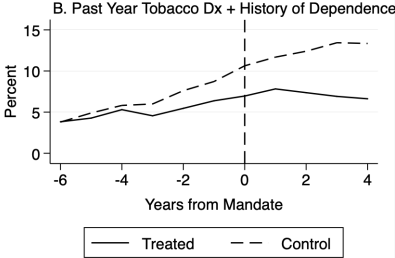
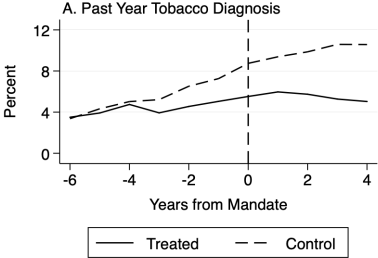
C. Past Year Cessation Counseling



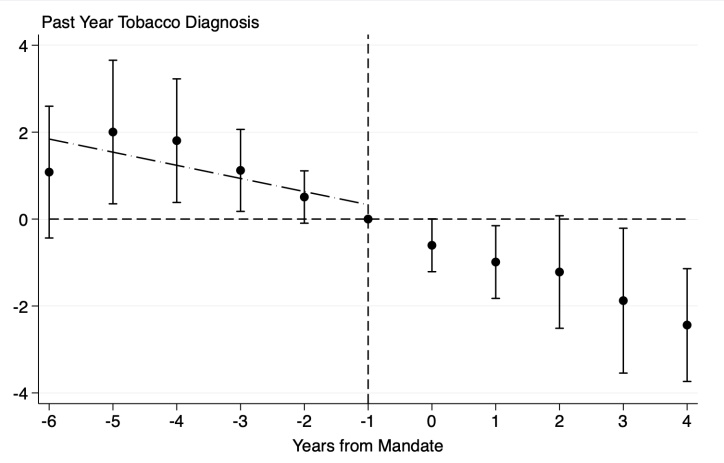
D. Past Year Cessation Rx



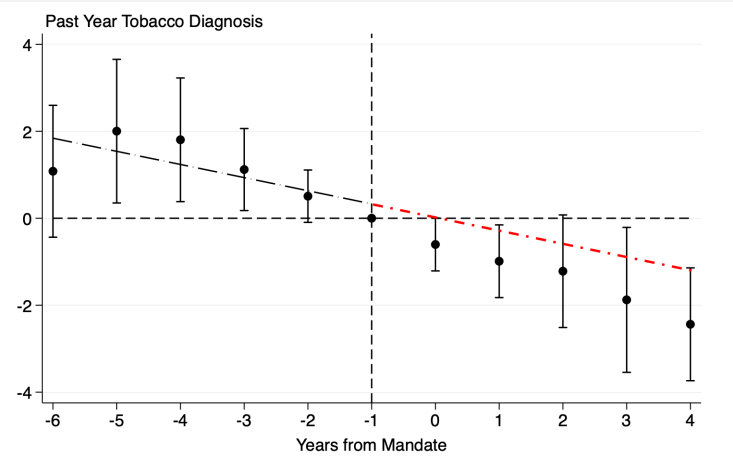
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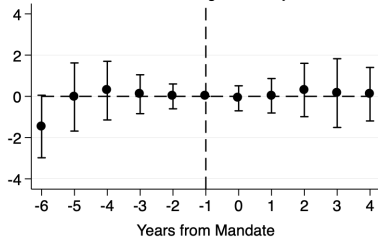
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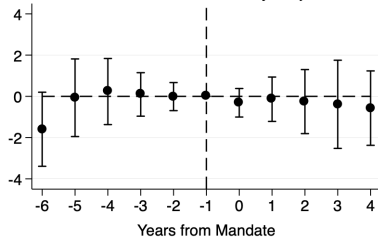


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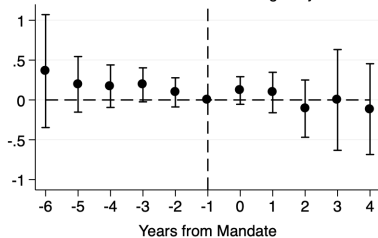
A. Past Year Tobacco Diagnosis - adjusted



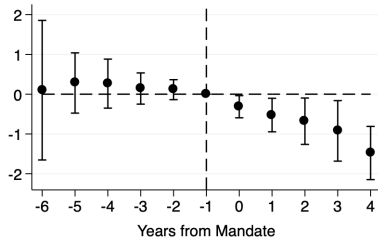
B. Past Year Tobacco Dx + History - adjusted



C. Past Year Cessation Counseling - adjusted

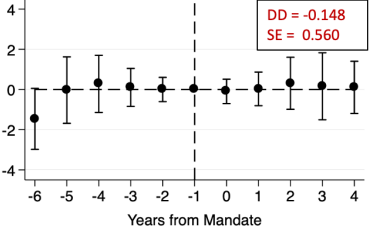


D. Past Year Cessation Rx

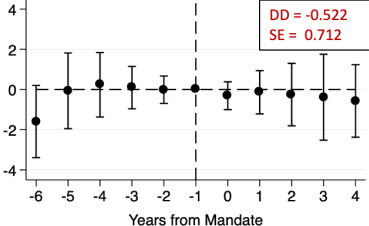


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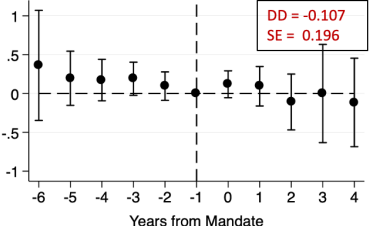
A. Past Year Tobacco Diagnosis - adjusted



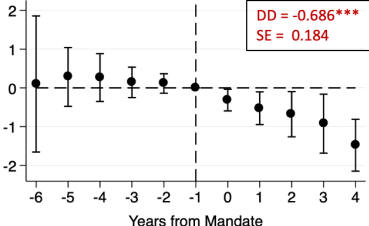
B. Past Year Tobacco Dx + History - adjusted



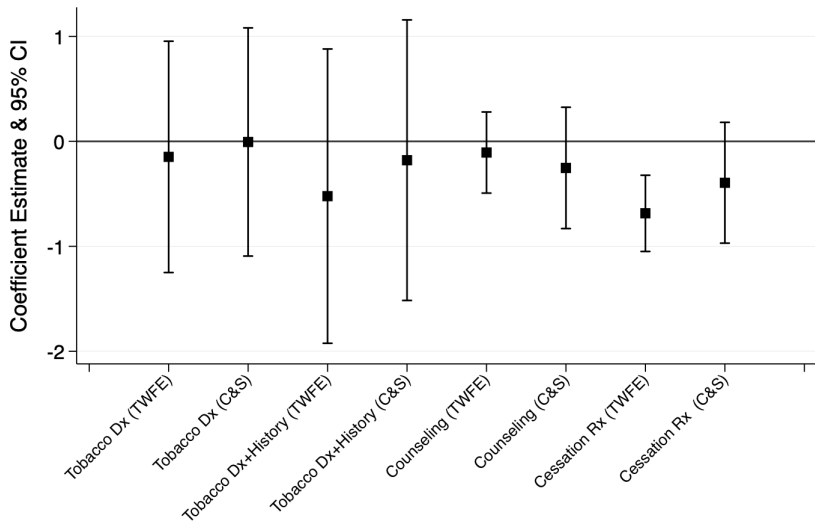
C. Past Year Cessation Counseling - adjusted



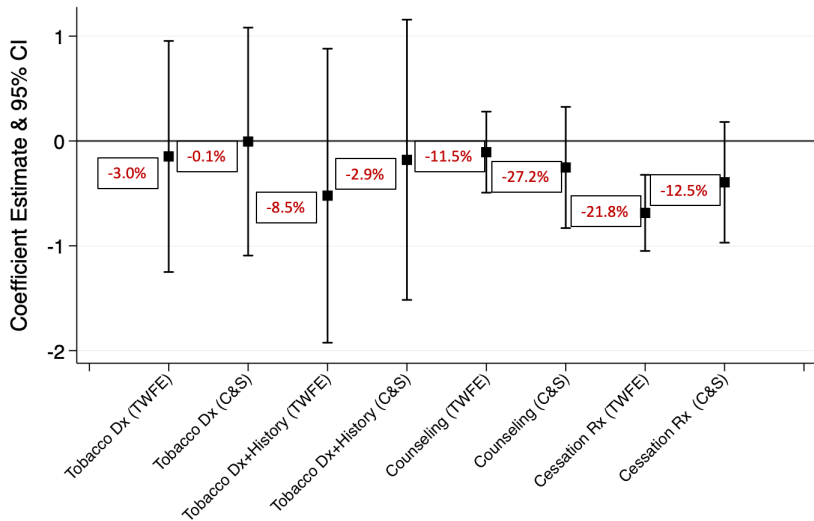
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# Results



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## Conclusions & Next Steps

- PSL increases physician visits, but does not appear to impact the use of clinical tools for tobacco cessation.

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- Next Steps:
  - ▶ Nielsen retail scanner data

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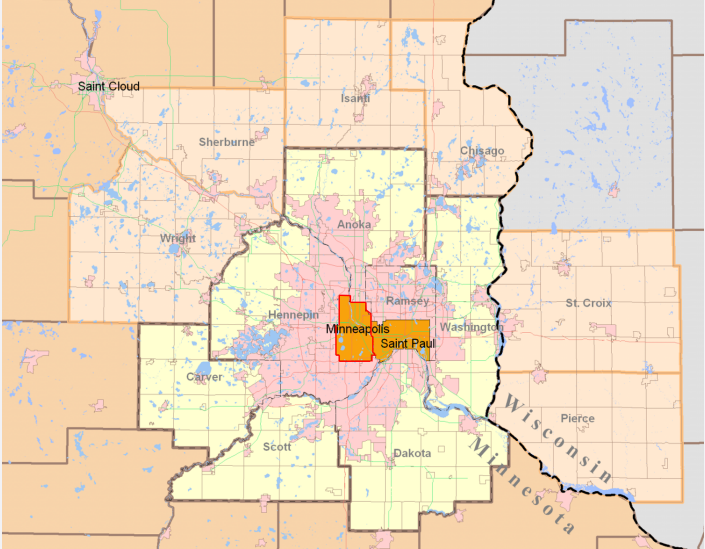
- PSL increases physician visits, but does not appear to impact the use of clinical tools for tobacco cessation.
- Next Steps:
  - ▶ Nielsen retail scanner data
- Thank you!

## Appendix Slides



# MSA Mandate Conversion

- Metropolitan Statistical Area



# Mandates

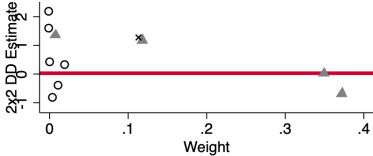
## Paid Sick Leave Mandates

<b>Mandate Jurisdiction</b>	<b>Year</b>	<b>Minimum Firm Size (# employees)</b>	<b>Accrual Rate/Maximum</b>
California	2015	No Minimum	1 hour per 30 hours worked / 48 hours
Massachusetts	2015	11+	1 hour per 30 hours worked / 40 hours
Philadelphia, PA	2015	10+	1 hour per 40 hours worked / 40 hours
Trenton, NJ	2015	No minimum	1 hour per 30 hours worked / 40 hours if firm size is 10+, 24 hours otherwise
Oregon	2016	10+ (6+ if located in a city with 500k residents)	1 hour per 30 hours worked / 40 hours
Arizona	2017	No minimum	1 hour per 30 hours worked / 40 hours if firm size is 15+, 24 hours otherwise
Chicago & Cook County, IL	2017	No minimum	1 hour per 40 hours worked / 40 hours
Minneapolis, MN & St. Paul MN	2017	5+ (Minneapolis only)	1 hour per 30 hours worked / 48 hours
Spokane, WA	2017	No minimum	1 hour per 30 hours worked / 24 hours
Vermont	2017	No minimum	1 hour per 52 hours worked / 24 hours in 2017/2018, 40 hours after 2018
Maryland	2018	15+	1 hour per 30 hours worked / 40 hours
Rhode Island	2018	18+	1 hour per 35 hours worked / 24 hours in 2018, 32 hours in 2019, and 40 hours after 2019
New Jersey	2018	No minimum	1 hour per 30 hours worked / 40 hours
Washington	2018	No minimum	1 hour per 40 hours worked / No maximum

Source: National Partnership for Women & Families Paid Sick Day Statutes:

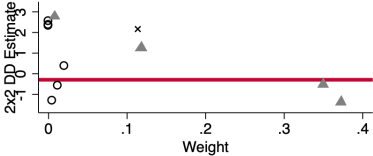
<https://www.nationalpartnership.org/our-work/resources/economic-justice/paid-sick-days/paid-sick-days-statutes.pdf>

# Goodman-Bacon Decomposition



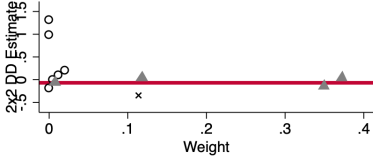
○ Timing groups    ▲ Never treated vs timing  
 × Within

Overall DD Estimate = .02740198  
 Within component = 1.2696862 (weight = .11364734)



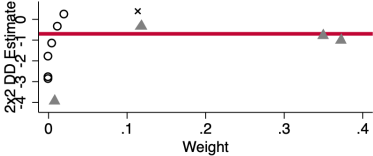
○ Timing groups    ▲ Never treated vs timing  
 × Within

Overall DD Estimate = -.29259483  
 Within component = 2.1516957 (weight = .11364734)



○ Timing groups    ▲ Never treated vs timing  
 × Within

Overall DD Estimate = -.06914999  
 Within component = -.34577271 (weight = .11364734)



○ Timing groups    ▲ Never treated vs timing  
 × Within

Overall DD Estimate = -.6977377  
 Within component = .37834099 (weight = .11364734)

- Callaway & Sant'Anna estimator:
  - ▶  $ATT(g, t) = \mathbb{E}[Y_t(g) - Y_t(0) | G_g = 1]$ , for  $t \geq g$
  - ▶ “Group-time ATT”

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  - ▶ “Group-time ATT”
- Aggregate ATTs into a single estimate using weighted averages.

$$\theta_w = \frac{1}{k} \sum_{g=\Gamma}^T \sum_{t=2}^T 1\{t \geq g\} ATT(g, t) P(G = g | C \neq 1)$$

- ▶ Where  $k$  is the number of groups.

## PSL and Encounters

