

# Protection for Whom? The Political Economy of Protective Labor Laws for Women

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# Women's Rights in the United States

- Starting in the mid-nineteenth century, major advances in women's economic and political rights.
- But not everything was progress: during first half of twentieth century, many legal restrictions on women's labor market opportunities were implemented.
- These were usually justified as “protective” legislation—but was this their true purpose?

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**Aim: Understand political economy of protective labor legislation.**

# Types of Protective Laws

## 1. Maximum Hours Laws

- Appeared as early as 1847.
- By 1921, all but four states had passed such legislation.

## 2. Night Work Laws

- Between 1919 and 1925, about 40% of women workers in North Carolina were working night shifts.
- By 1928, one-third of the states had legislation prohibiting night work.

## 3. Minimum-Wage Laws

- 1912-1919: 14 states & D.C. passed min wage laws for women.
- By 1938, 26 states have passed minimum-wage laws.

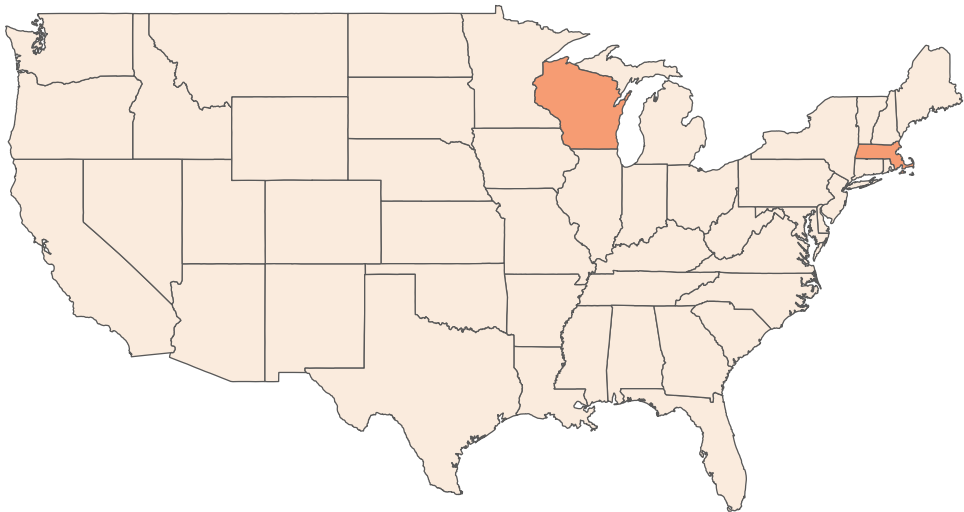
## 4. Seating Laws

- Requirement that women have to be able to sit down while working.

## 5. Weight Laws

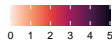
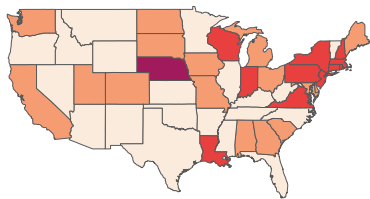
- Limit on how much weight women may lift at work.

## Protective Labor Laws, 1880

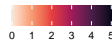
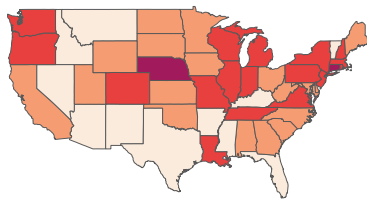


# Protective Labor Laws, 1900–1930

(a) 1900

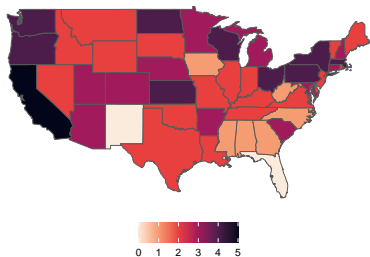


(b) 1910

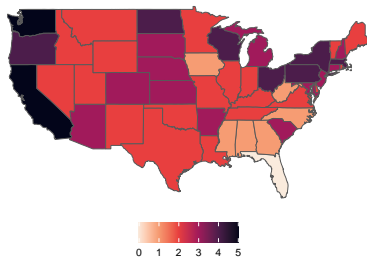


## Protective Labor Laws, 1900–1930

(a) 1920



(b) 1930



# Potential Drivers of Reform

- Women's health and welfare.
- Children's wellbeing.
- Men's morale at work.
- Bargaining power in marriage.
- Labor market competition: jobs for "breadwinners."



# Labor Market Competition as a Driver of Political Change

## Main Conclusion of Paper:

**Concern about labor market competition from women drives much of the observed change.**

## How We Arrive at the Conclusion:

1. Use political economy model to spell out the mechanism.
2. Show that when matched to US data, model explains the rise on fall of protective labor legislation remarkably well.
3. Use new and comprehensive cross-state data to provide additional evidence on the mechanism versus potential alternatives.

# Literature

- Empirical papers analyzing the effect of protective legislation on employment (Landes 1980, Goldin 1988, Haddad and Kattan 2023) and effect of removal on gender pay gap (Bailey, Helgerman, Stuart 2023).
- Evolution of other types of women's rights (Geddes and Lueck 2002, Doepke and Tertilt 2009, Fernandez 2014).
- Political economy of child labor laws (Doepke and Zilibotti 2005).

# Outline

- Model
- Application to United States
- State-level empirical evidence

# 1. Model

## Model Setup: People

- Economy populated by singles and married couples.
- Men heterogeneous by skill: unskilled  $U$  or skilled  $S$ .
- Women heterogeneous by home productivity:  $\psi \in \{\underline{\psi}, \overline{\psi}\}$ .
- All single women have low home productivity.
- Numbers of each type:
  - Singles:  $N_U, N_S, N_{\underline{\psi}}$
  - Couples:  $N_{U\underline{\psi}}, N_{U\overline{\psi}}, N_{S\underline{\psi}}, N_{S\overline{\psi}}$ .
  - Households die at mortality rate  $\rho$ , new households born at time-varying rates  $\kappa_{ht}$  (matched to data).

# Model Setup: Production

## Agriculture (rural area):

$$Y_a = X_{Fa}^\alpha X_{Ua}^\beta X_{Sa}^\gamma$$

where  $\alpha + \beta + \gamma < 1$  (land is a fixed factor)

## Modern sectors (urban area):

$$Y_b = AX_{Sb}^{1-\delta} (\xi \phi X_{Fb} + X_{Ub})^\delta,$$

$$Y_f = AX_{Sf}^{1-\delta} (\xi \phi X_{Ff})^\delta,$$

$$Y_u = AX_{Su}^{1-\delta} X_{Uu}^\delta.$$

$\phi < 1$  is the gender productivity gap in the modern sector.

$\xi \in \{\bar{\xi}, 1\}$  is a political choice of imposing additional constraints on women's productivity in the modern sector ( $\bar{\xi} < 1$ ).

## Model Setup: Production

Output of modern sectors combined by competitive industry to produce composite modern good  $Y_m$ :

$$Y_m = \left( (1 - \theta_f - \theta_u) Y_b^{\frac{\eta-1}{\eta}} + \theta_f Y_f^{\frac{\eta-1}{\eta}} + \theta_u Y_u^{\frac{\eta-1}{\eta}} \right)^{\frac{\eta}{\eta-1}}.$$

Modern good trades at price  $p_m$  in terms of agricultural good.

## Model Setup: Preferences

- People care about composite consumption good  $C$  and home production  $Q$ :

$$U(C, Q) = \ln(C) + Q.$$

- $C$  is a composite of agricultural and modern goods:

$$C = \left( c_a^{\frac{\epsilon-1}{\epsilon}} + c_m^{\frac{\epsilon-1}{\epsilon}} \right)^{\frac{\epsilon}{\epsilon-1}}.$$



## Model Setup: Political Economy

Each period, policy is considered that reduces women's productivity in the modern sector by additional factor  $\xi < 1$ :

$$Y_b = AX_{Sb}^{1-\delta}(\xi\phi X_{Fb} + X_{Ub})^\delta,$$
$$Y_f = AX_{Sf}^{1-\delta}(\xi\phi X_{Ff})^\delta.$$

Decision is by majority vote, either among all adults or (before women's suffrage) only men.

## Model Setup: Timing within Period

1. Households and firms form a (rational expectations) belief,  $\xi^*$ , about  $\xi$ .
2. Given  $\xi^*$ , households choose location (rural or urban) and female labor supply  $d \in \{0, 1\}$ .
3. Majority vote on women's labor rights  $\rightarrow \xi$  is realized.
4. Given  $\xi$ : urban households choose sectors and firms choose inputs.
5. Given  $\xi$ : output, wages, and consumption are realized.

# Dynamic Politico-Economic Equilibrium

Beliefs  $\xi_t^*$ , policies  $\xi_t$ , wages, labor allocations, and goods market allocations such that:

1. Given prices, firms maximize profits.
2. Given prices and beliefs, households maximize utility.
3. Labor markets clear.
4. Goods markets clear.
5. Policy  $\xi \in \{\bar{\xi}, 1\}$  that is preferred by the majority of the voters is implemented.
6. Beliefs are rational:  $\xi_t = \xi_t^*$ .

# Analytical Results

- Wages for each type of labor equalized across regions.
- If both women and men supply labor in the mixed sector, urban sectors aggregate and behave as if there was a single urban production function:

$$Y_m = AX_{Sm}^{1-\delta}(\xi\phi X_{Fm} + X_{Um})^\delta.$$

- Imposing protective legislation reduces relative demand for agricultural goods and hence lowers their price.

# Equilibrium: Who Supports Restricting Women's Work?

- For restrictions
- Against restrictions

|               |  | Men's Type: |         |             |         |               |
|---------------|--|-------------|---------|-------------|---------|---------------|
|               |  | Unskilled   |         | Skilled     |         |               |
| Women's Type: |  | Agriculture | Modern  | Agriculture | Modern  | Single Women: |
| Agriculture   |  | Against     |         | Against     |         | Against       |
| Modern        |  |             | Against |             | Against | Against       |
| Non-working   |  |             | For     |             | Against |               |
| Single Men:   |  | Against     | For     | Against     | Against |               |

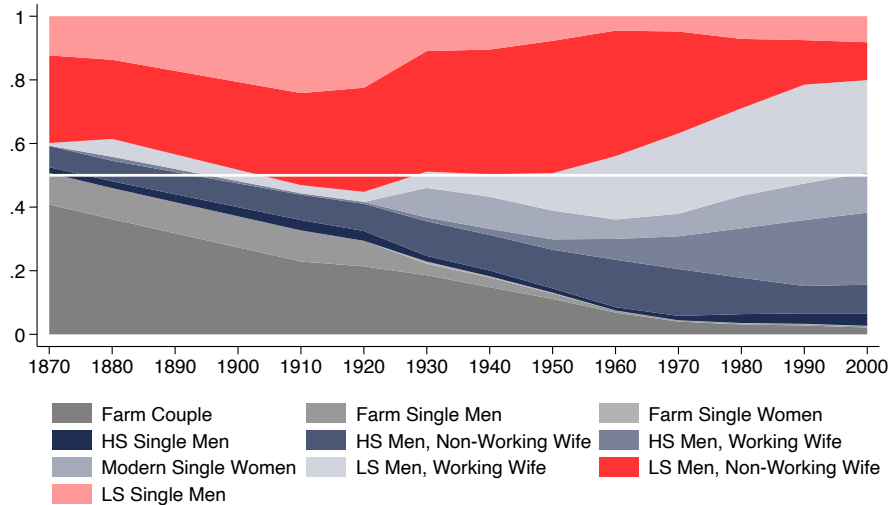
## 2. Model vs. US Data

# Matching the Model to the Data

Match group shares between model and data by:

- Setting modern-sector productivity  $A$  to match modern employment share.
- Choose composition of new cohorts (by single/married, skilled/unskilled, working wife/homemaker wife) to match data.
- Track voters for and against restrictions in each period; women are voters after 1920.

# Predicted Support Matches Introduction of Restrictions





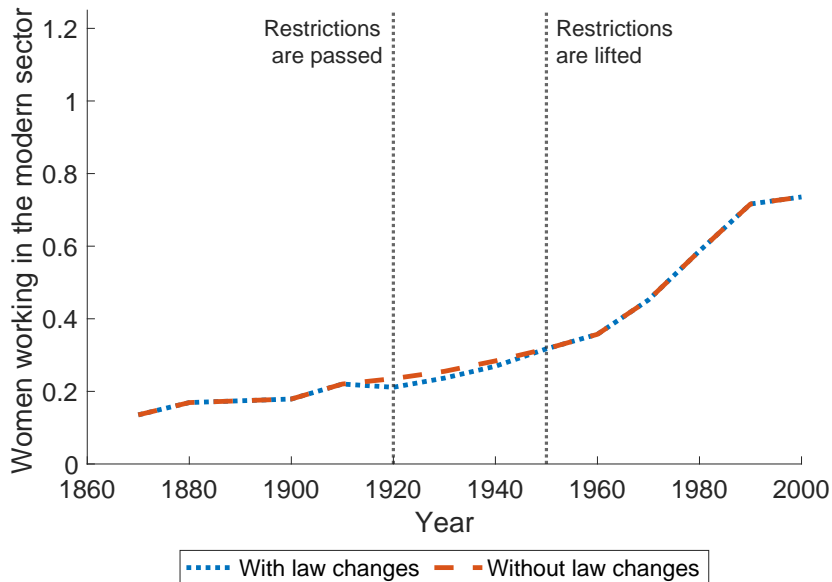
# Predicted Support Matches Introduction of Restrictions

Low-skilled modern-sector single men and low-skilled modern-sector married men with stay-at-home wives had the majority of votes when restrictions spread quickly.

Structural change drove the rise of the coalition in favor of restrictions.

Married women's rising LFP and women's suffrage made the support for restrictions fall apart.

# Restrictions Temporarily Slow Down Transition to Modern Sector



## Counterfactuals: Which Forces Matter Most?

Can use model to assess relative importance of different forces in driving political change.

- If women had the **right to vote** earlier, restrictions would have spread less and be abolished more quickly.
- If **women's LFP** had not risen, restrictions would have persisted much longer.
- **Less skill growth among men** would have also resulted in more durable restrictions; quantitatively, women's rising LFP is more important than changing skills.

### 3. State-Level Evidence

# State-Level Evidence in the United States

Collect comprehensive data on the implementation of protective labor laws across states between 1890–1940.

Include variables that correspond to different potential channels behind the adoption of protective labor laws.

## State-Level Evidence: Labor-Market Competition

- Regress indicator of laws' introduction on predicted vote share in favor.
- Larger predicted vote share  $\Rightarrow$  protective laws are introduced.

| Dependent Variable       | (1)               | (2)               | (3)               | (4)                |
|--------------------------|-------------------|-------------------|-------------------|--------------------|
| I. Any Law               | 1.13***<br>(0.15) | 0.66***<br>(0.13) | 3.04***<br>(0.31) | 1.06***<br>(0.25)  |
| II. Work Time Laws       | 1.50***<br>(0.14) | 0.95***<br>(0.15) | 3.11***<br>(0.29) | 0.54**<br>(0.27)   |
| III. Work Condition Laws | 1.07***<br>(0.18) | 0.54***<br>(0.15) | 2.98***<br>(0.25) | 0.55**<br>(0.25)   |
| IV. Minimum Wage Laws    | 0.57***<br>(0.17) | 0.32***<br>(0.12) | 0.14<br>(0.32)    | -1.49***<br>(0.34) |
| Time FE                  |                   | X                 |                   | X                  |
| State FE                 |                   |                   | X                 | X                  |

# Alternative Hypotheses

Who else might gain from restricting women's work?

1. Women want to be protected at work.  
→ Protective labor laws not strongly associated with suffrage.
2. Unions want to improve working conditions for everyone, easiest to start with the most vulnerable groups (children, women).  
→ Protective labor laws not associated with measures of labor organization.
3. Children need mothers at home. Concerns about fertility.  
→ Protective labor laws not associated with fertility and mandatory schooling laws.

# State-Level Evidence: Alternative Hypotheses

|                            | Dependent Variable: Any Law |                   |                   |                   |                   |                   |
|----------------------------|-----------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|                            | (1)                         | (2)               | (3)               | (4)               | (5)               | (6)               |
| Predicted Support For Laws | 1.11***<br>(0.29)           | 1.53***<br>(0.43) | 1.52***<br>(0.42) | 0.75**<br>(0.30)  | 0.87***<br>(0.26) | 1.08***<br>(0.26) |
| I. Organized Labor         |                             |                   |                   |                   |                   |                   |
| Strikes                    | -0.01<br>(0.02)             |                   |                   |                   |                   |                   |
| AFL Delegates per capita   |                             | 0.01<br>(0.05)    |                   |                   |                   |                   |
| AFL Votes per capita       |                             |                   | -0.01<br>(0.04)   |                   |                   |                   |
| II. Concerns for Children  |                             |                   |                   |                   |                   |                   |
| % Children < 10            |                             |                   |                   | -0.38**<br>(0.15) |                   |                   |
| Mandatory Schooling Laws   |                             |                   |                   |                   | 0.14<br>(0.09)    |                   |
| III. Women's Suffrage      |                             |                   |                   |                   |                   |                   |
| Suffrage                   |                             |                   |                   |                   |                   | 0.03<br>(0.05)    |
| State FE                   | X                           | X                 | X                 | X                 | X                 | X                 |
| Time FE                    | X                           | X                 | X                 | X                 | X                 | X                 |



# Conclusion

Laws restricting female work were introduced in the early twentieth century, and then disappeared in the 1960s.

**Politico-economic model focusing on labor-market competition channel captures this pattern remarkably well.**