

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

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## Abstract

During the first half of the twentieth century, many US states enacted laws restricting women's labor market opportunities, including maximum hours restrictions, minimum wage laws, and night-shift bans. The era of so-called protective labor laws came to an end in the 1960s as a result of civil rights reforms. In this paper, we investigate the political economy behind the rise and fall of these laws. We argue that the main driver behind protective labor laws was men's desire to shield themselves from labor market competition. We spell out the mechanism through a politico-economic model in which singles and couples work in different sectors and vote on protective legislation. Restrictions are supported by single men and couples with male sole earners who compete with women for jobs. We show that the theory's predictions for when protective legislation will be introduced are well supported by US state-level evidence.

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# 1 Introduction

Over the past 200 years, there have been tremendous advances in women's rights in the United States, ranging from the spread of economic rights for married women in the late nineteenth century and the establishment of women's suffrage nationwide in 1920 to anti-discrimination legislation in the second half of the twentieth century. Despite such advances, there have also been setbacks. During a period lasting from the late nineteenth to the mid-twentieth century, most US states introduced legal restrictions on women's participation in the labor market, without imposing similar restrictions on men. These laws included maximum hours regulations, night shift bans, weight-lifting restrictions, seating requirements, and minimum wage provisions.<sup>1</sup> Many of these laws remained in effect up through the 1960s, ending only when broader civil rights and anti-discrimination legislation rendered most gender-specific labor laws unconstitutional.

In this paper, we aim to understand the political forces behind this temporary reversal in the advancement of women's rights. Why were these laws introduced across the United States during a particular period, and why were these same laws ultimately overturned decades later? Restrictions on working women were usually framed by their proponents as protective measures to safeguard women's health or prevent their exploitation. These public justifications may not, however, have coincided with the true motives of those advocating for reform. Moreover, beyond the motivations of the proponents, the question remains as to why such restrictions became widely popular and gained majority support in state legislatures around the country. We would like to identify the wider changes in the economy and society that first brought about the era of protective labor legislation and that, later, led to its demise.<sup>2</sup>

We argue that the most important force behind the rise and fall of protective labor legislation was changing concerns about labor market competition between women and men. Specifically, protective legislation was introduced after structural change shifted women's employment from agriculture to urban sectors, where women and men increasingly competed for jobs. This rise in competition between male and female workers increased the support for laws that hindered women's employment among men

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<sup>1</sup>While this paper focuses on the United States, similar laws were introduced around the same time in many other countries, including Germany (Braun 1994), the United Kingdom (Shanley 1986), and the Soviet Union (Ilic 1999). See also Wikander, Kessler-Harris, and Lewis (1995).

<sup>2</sup>Other constraints on female labor, such as paternalistic discrimination (Buchmann, Meyer, and Sullivan 2024) or a husband's choice to support or restrict his wife's decision to work (Bursztyn, González, and Yanagizawa-Drott 2020), are imposed at the employer or household level. In contrast, the protective laws we examine here were enacted through political processes, which necessarily means asking which groups in society supported such legislation.

exposed to this competition, as well as among women married to these men. Conversely, the main driver behind the later decline in the popularity of restrictions on women's work was the rising labor force participation of married women, which gave married men a stake in supporting their wives' employment. Thus, political support for restrictions on women's labor was driven less by a need to protect women from harm than by a desire to protect men from competition.

To formalize our argument, we develop a political economy model in which single and married women and men can participate in the labor market and vote on the introduction of restrictions on women's work. Production occurs in the agricultural sector and in the modern sector. A key distinction between the two sectors is that in agriculture, male and female workers are complementary in production. In contrast, in the modern sector, unskilled men and women compete for the same jobs, while both groups complement skilled male workers.<sup>3</sup> Men and single women always work, whereas a fraction of married women specialize in home production and do not participate in the formal labor market. Households decide which sector to work in and how to allocate consumption between agricultural and modern goods.

Each period, people can vote on a protective labor law, the sole effect of which is to lower women's productivity in modern-sector work. For example, restrictions on night work would make women's labor less useful in establishments that operate a night shift, common during the period considered. We capture this productivity penalty through a proportional reduction in women's effective labor supply in the modern sector.<sup>4</sup> While such a restriction on working women clearly reduces economic efficiency, certain groups may still benefit from protective labor laws due to the effects of such legislation on wages. Specifically, the model identifies two household types that gain from restricting women's labor: unskilled single men working in the modern sector, and unskilled married men in the modern sector whose wives are homemakers and hence do not participate in the labor market. For these two groups, the only source of income is the wage of the unskilled modern-sector male worker, which rises if protective legislation is introduced, given that these men compete with modern-sector women for the same jobs. All other groups oppose protective legislation, either because their household income would decline or due to changes in the relative price of agricultural versus modern goods. Even couples where the husband is an unskilled modern sector worker but the wife also works

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<sup>3</sup>We focus on competition between unskilled men and women since protective labor laws primarily affected women in low-skilled occupations. Women in high-skilled jobs, such as teachers, were more likely to be affected by other types of policies, such as marriage bars ([Goldin 1988a](#)).

<sup>4</sup>We assume that the law applies only in the modern sector, since actual protective labor laws were specific to manufacturing and some service sector jobs, but did not apply to agriculture.

oppose such laws, because her direct income loss from protective labor legislation would outweigh his gain through higher wages.

The model implies that protective labor laws will be introduced if the two household types favoring restrictions constitute a majority of the voting population. Using US Census data, we show that the relative voting power of these groups indeed lines up remarkably well with the introduction and later demise of protective labor legislation.

We also show that our findings are robust to several modeling extensions. In particular, we consider an extension with equilibrium unemployment. This case is relevant because much of the expansion of protective legislation occurred during a period of elevated unemployment. In the extended model, political incentives for unskilled workers are primarily driven by effects on the probability of finding a job, rather than by relative wages. Still, we find that the implications for which groups support and oppose protective legislation are unchanged. We also consider additional extensions, such as adding small benefits to working women from protection and allowing for skilled female labor supply, and find that our main results continue to hold.

We provide further evidence in favor of the labor market competition channel by considering state-level variation. To this end, we assemble a novel state-level dataset on five types of protective laws: maximum hours, night work, seating, maximum weight, and minimum wage laws. We then correlate the introduction of these laws at the state level with the predicted political support, based on the state-level shares of the groups that should benefit from the restrictions. We show that the predicted political support closely aligns with the actual adoption of these laws at the state level. We also examine additional forces that may have contributed to the rise of protective legislation, such as the role of organized labor and state-level extensions of women's suffrage. However, we do not find strong support for these channels, and controlling for them does not diminish the empirical support for the labor market competition channel. Notably, the observation that extensions of voting rights to women are not correlated with the introduction of restrictions supports the implication of our theory that political support is not primarily divided along gender lines, but instead depends on the exposure of each household's income to competition from women. We then consider the end of protective legislation, using state-level variation in the adoption of Equal Rights Amendments (ERA). Since these amendments effectively eliminated gender-based labor laws, political support for ERAs amounts to opposition to protective legislation for women. We document a strong negative correlation between the predicted support for protective laws and state-level ERA adoption. These results support our argument that the labor market competition

channel explains both the rise and fall of protective labor laws.

We also provide evidence on individual attitudes regarding women's participation in the labor market. Using data from the NLSM and NLSW<sup>5</sup>, we show that among married individuals, support for or opposition to working women depends primarily on the husband's skill and the wife's labor force participation, confirming the main patterns implied by our theory.

To uncover the deeper economic forces behind the rise and fall of support for protective legislation, we calibrate our model to the US economy between 1870 and 2000. In the quantitative model, a new cohort of young adults enters each period, and the composition of household types is matched to the US data. Over time, structural change shifts production from agriculture to the modern sector. The gender productivity gap also narrows. Changes in women's home versus market productivity in new cohorts explain the rise in married women's labor force participation after World War II. The model accounts well for changing political support for protective legislation: in the baseline calibration, protective labor laws receive majority support during the same 1910–1960 period that we discerned in the US Census data.

We then use a series of counterfactual simulations to identify the key drivers of the shift in support for protective legislation. We find that majority support for such laws arises primarily from the expansion of the modern sector, where unskilled men and women compete for jobs. In the absence of structural change, supporters of protective labor laws never gain a majority. The substantial rise in married women's labor force participation after World War II is the most important factor underlying the end of protective legislation. If married women's labor force participation had not increased, protective laws would have remained in place until at least the year 2000, because unskilled men with nonworking wives would have continued to make up a substantial share of the population. Other drivers have smaller effects. The introduction of women's suffrage in 1920 has a limited impact on the timing of political reform, mainly because most voters are married, and the economic interests of spouses are aligned. Political dividing lines in our analysis thus run primarily between different household types rather than between women and men. The skill composition of the labor force is more important: when we keep the skill composition of male workers unchanged at the 1870 level, protective legislation remains in place for an additional decade, due to a higher share of unskilled male workers facing competition from women.

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<sup>5</sup>The National Longitudinal Surveys of Older and Young Men (NLSM) and the National Longitudinal Surveys of Mature and Young Women (NLSW) are the now discontinued original surveys of the National Longitudinal Surveys program.

Our paper is part of a literature that combines models of structural change and economic growth with political-economy models to examine the origins and consequences of political reforms in the development process. Most directly, our work connects to research exploring the political economy of other aspects of women’s rights, including [Geddes and Lueck \(2002\)](#), [Doepke and Tertilt \(2009\)](#), and [Fernández \(2014\)](#) on the spread of women’s economic rights, and [Bertocchi \(2011\)](#) on women’s suffrage.<sup>6</sup> We contribute to this literature by developing the first theoretical model that explains both the emergence and decline of gender-specific labor laws.<sup>7</sup> Our work is also closely connected to [Doepke and Zilibotti \(2005\)](#), who argue that a labor market competition channel can account for the emergence of child-labor laws at the beginning of the period that we study here. Potential labor market competition is also relevant for the introduction of immigration restrictions during the same historical period ([Goldin 1994](#); [Abramitzky and Boustan 2017](#)).<sup>8</sup> Other related work includes [Galor and Moav \(2006\)](#) on the introduction of public education and [Caucutt, Cooley, and Guner \(2013\)](#) on the introduction of public pensions.

Beyond political economy, our paper also contributes to a growing literature that links structural change to women’s changing role in the labor market, including work by [Galor and Weil \(1996\)](#), [Greenwood and Seshadri \(2002\)](#), [Ngai and Petrongolo \(2017\)](#), [Rendall \(2018\)](#), [Bridgman, Duernecker, and Herrendorf \(2018\)](#), [Buera, Kaboski, and Zhao \(2019\)](#), [Gottlieb et al. \(2024\)](#), [Ngai, Olivetti, and Petrongolo \(2024\)](#), and [Kuhn, Manovskii, and Qiu \(2025\)](#). Important themes in this literature are the roles of women’s comparative advantage in the service sector and of marketization of home production for both structural change and rising female labor force participation. In our analysis, structural change matters primarily through a different mechanism, namely shifts in the potential for labor market competition between women and men.

Our study also relates to a historical literature on the origins of protective labor laws, which is summarized in [Lehrer \(1987\)](#). Work in this area primarily explores the motivations of the campaigners who promoted the restrictions. We see our main contribution as addressing the broader question of how protective labor laws came to enjoy widespread

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<sup>6</sup>[Tertilt et al. \(2022\)](#) provide a comprehensive overview of the key arguments for and against extending different types of women’s rights, including economic, political, and labor market rights, as well as those related to women’s autonomy over their own body. Using the categorization in [Tertilt et al. \(2022\)](#), we identify the income channel as the main driver behind the rise and fall of protective legislation. See also [Doepke, Tertilt, and Voena \(2012\)](#).

<sup>7</sup>[Algan and Cahuc \(2006\)](#) relate the emergence of job protection in the form of high firing costs in Southern Europe to the male breadwinner model, but the protection laws in their analysis are not gender specific.

<sup>8</sup>For a contemporary example, see [Greenberg, Wasserman, and Weber \(2024\)](#) for evidence of men’s opposition to gender integration in the US military.

popularity beyond the groups that initially proposed the restrictions. That said, the motivations of the reform proponents are relevant to our analysis. The perceived need to protect vulnerable women was indubitably a sincere motivation of at least some campaigners. However, it is less clear how well informed these groups were about the actual needs of working women. One of the most active proponents of protective legislation was the Women's Trade Union League (WTUL), composed largely of women who did not work themselves but were interested in social issues. [Lehrer \(1987\)](#) writes that one of the most frequent attacks against the WTUL was that "it was a bunch of upper-class women who purported to speak for working women without the vaguest notion of what their problems were" (p.116), and "whose ignorance of the conditions of daily life for poor, unskilled working women was nearly complete" (p.122).<sup>9</sup>

The labor market competition channel is supported by the observation that protective labor laws were limited to specific industries. Women working as household servants—the largest sector of women's employment at the turn of the twentieth century—as well as those in agriculture were universally excluded from protective legislation, not just in the United States but also in other countries that implemented similar restrictions at the time ([Kessler-Harris 1982](#)). Such limitations make little sense if the objective was to protect the health of all women, but are exactly what the labor market competition channel predicts if women and men compete for jobs only in specific sectors. In line with this interpretation, in a study of the origins of protective labor legislation in eleven countries [Wikander, Kessler-Harris, and Lewis \(1995\)](#) reject the view that such laws served to protect women's health. Rather, they argue that protective legislation maintained and extended a gendered division of labor across countries that would have otherwise been challenged by structural change in the economy.

Our work also intersects with an empirical literature on the effects of protective labor legislation. [Landes \(1980\)](#) argues that maximum-hours laws for women reduced women's labor supply both at the extensive and intensive margin. [Goldin \(1988b\)](#) reassesses the argument based on new evidence and concludes that the impact of maximum-hours laws on women's hours worked was minimal and did not reduce women's employment share in manufacturing. [Marchingiglio and Poyker \(2024\)](#) focus on gender-specific minimum wage laws in the United States and find that they decreased female employment and increased male employment. [Haddad and Kattan \(2025\)](#) analyze seating, night shift, and

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<sup>9</sup>Nonetheless, the perceived need to protect women's health played a central role in court cases concerning protective legislation, such as the *Mueller vs. Oregon* Supreme Court case in 1908, which upheld a maximum hours law in Oregon. The case was largely won because of the famous Brandeis brief, which argued "that women were entitled to special protection on their jobs because, as mothers of future generations, their health was a matter of public concern" ([Hill 1979](#)).



health and safety regulations for women and observe that some of these laws actually increased female labor supply. In contrast, [Zveglic and Rodgers \(2003\)](#) show that night-shift prohibitions and overtime limits in Taiwan decreased women’s hours worked and employment. [Bailey, Helgerman, and Stuart \(2023\)](#) examine the impact of the 1963 Equal Pay Act and the 1964 Civil Rights Act, which effectively nullified most protective labor legislation, and find that the Acts increased female relative wages. While there is clearly substantial variation across types of laws, and restrictions may not have always been binding, this literature generally supports the notion that protective laws were a constraint on women’s employment. The era of protective legislation also largely coincided with the era of marriage bars, which excluded married women from many types of employment (such as teaching in most US school districts) and constituted clearly binding restrictions. Although marriage bars were local restrictions rather than state laws and therefore fall outside our formal analysis, they arguably form part of the same phenomenon as protective legislation and likely were driven, at least in part, by the same competition motive we emphasize here.

In the next section, we provide historical background on protective legislation in the United States. Section 3 sets up our model and Section 4 discusses extensions. Section 5 shows that the US evidence is consistent with the predictions of the model. Section 6 explores mechanisms, while Section 7 discusses additional channels. Section 8 concludes.

## 2 Historical Background

Throughout the nineteenth century, the United States made significant strides in expanding women’s economic rights, effectively granting women and men equal legal standing in this domain ([Doepke and Tertilt 2009](#); [Doepke, Tertilt, and Voena 2012](#)). Yet, starting in the late 1800s, a wave of labor laws emerged that restricted women’s employment opportunities in ways that did not apply to men.<sup>10</sup> Known as protective labor legislation, these laws reversed the trend toward gender-neutral legal treatment of both sexes by imposing maximum hours restrictions, night shift bans, limits on the weight women were permitted to lift, mandates for employer-provided seating, and female-specific minimum wage requirements. We document the evolution of protective labor laws in the United States by collecting state-level evidence on all of these restrictions. Our primary

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<sup>10</sup>For a general history of women’s rights, see [Hecker \(1971\)](#) and [Yalom \(2001\)](#). For the evolution of women’s rights in the United States over the past century, see [McBride and Parry \(2016\)](#) and [Goldin \(2023\)](#). For protective labor legislation, see [Baer \(1978\)](#), [Hill \(1979\)](#) and [Woloch \(2015\)](#), and for an early account, see [Brandeis \(1935\)](#).



data source is the Bulletin No. 66 of the Women’s Bureau (1929).<sup>11</sup> Using data on the enactment of protective labor laws, we create indices that capture the fraction of states that had each type of legislation in place in every year between 1870 and 1950.<sup>12</sup> In addition, we aggregate these indices to create an overall index, defined as the sum of the five sub-indices.

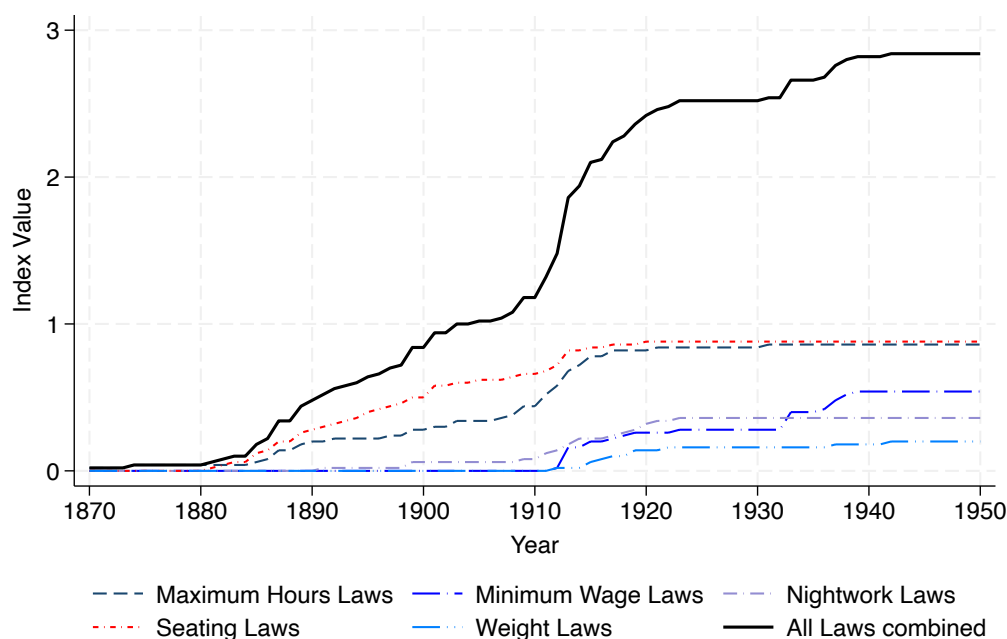


Figure 1: Protective Legislation Indices Over Time

*Notes:* We construct indices at the state-level and average across states to obtain an overall index for the United States. We focus on laws that were enacted and have not been repealed. For an overview of the individual state-level laws, see Appendix Table A.1.

Figure 1 shows the evolution of protective legislation in the United States over time. Prior to the 1870s, such laws were virtually nonexistent.<sup>13</sup> The enactment of new laws accelerated after the turn of the century. Between 1900 and 1920—and particularly during the decade from 1910 to 1920—many states passed some form of protective legislation for women. By 1940, the average state had implemented three out of the five

<sup>11</sup>Haddad and Kattan (2025) draw on Bulletin No. 66 of the Women’s Bureau (1929) to examine seating laws, health and safety regulations, and night-work restrictions. We use the same Bulletin as our primary source, and additionally include maximum-hours laws and female-specific minimum wages. We further supplement these data with additional information from the Women’s Bureau Bulletin No. 202-3 (1944), Bulletin No. 255 (1954), Bulletin No. 267-I (1958), Bulletin No. 275 (1960) and Brandeis (1935). The table notes in Appendix Table A.1 provide further details.

<sup>12</sup>The raw data underlying these indices are summarized in Appendix Table A.1.

<sup>13</sup>The only two exceptions are a maximum hours law enacted in Ohio in 1852, which was later repealed, and another maximum hours law passed in Wisconsin in 1867.

types of protective labor laws. Figure 2 depicts the significant geographical variation in the enactment of protective legislation across states between 1900 and 1930. While Northeastern states introduced protective legislation earlier than the rest of the country, such laws ultimately became most prevalent in West Coast states. The only state that never enacted any protective legislation for women is Florida.<sup>14</sup>

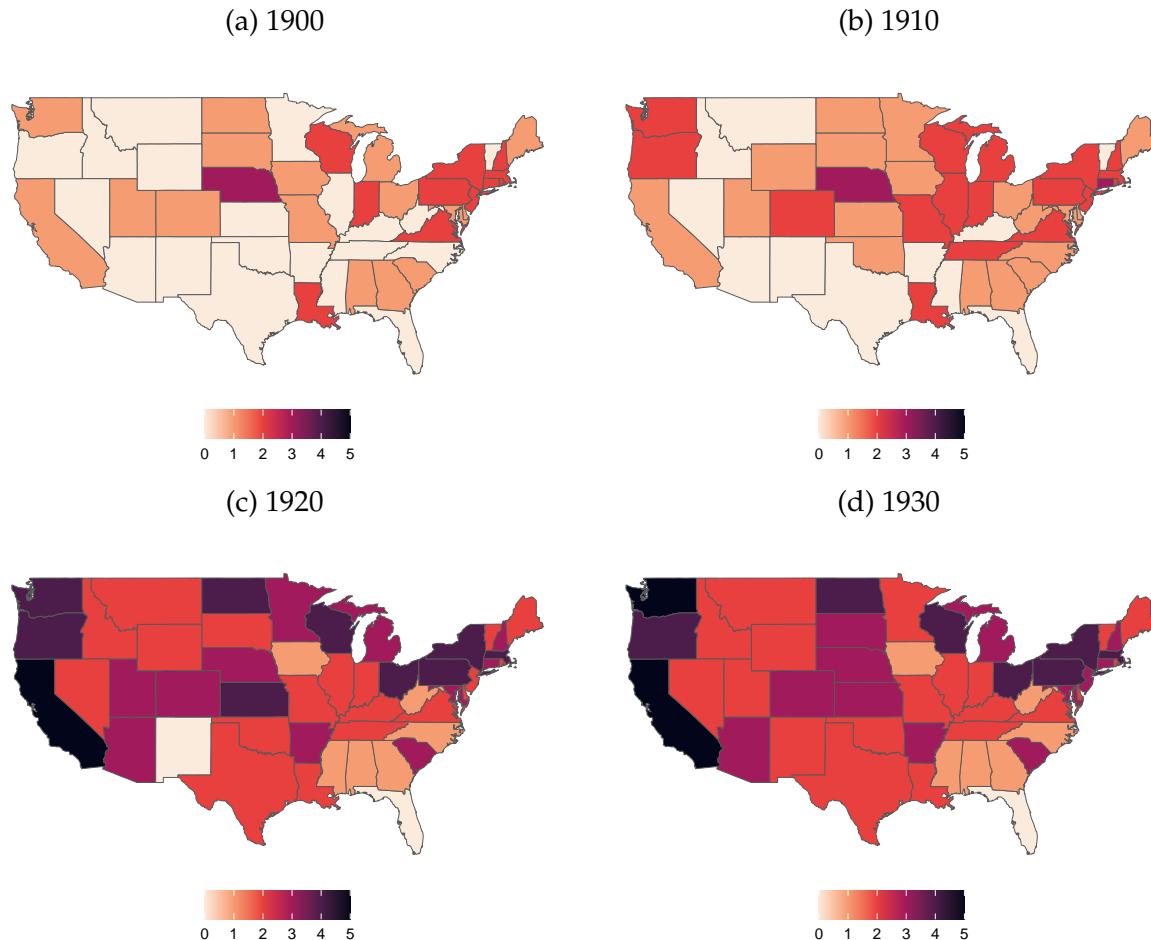


Figure 2: Regional Spread of Protective Legislation, 1900–1930

*Notes:* We construct an index that summarizes five types of protective legislation: maximum hours laws, nightwork restrictions, minimum wage laws, weight laws, and seating laws. These laws only applied to working women. See Appendix Table A.1 for an overview of the enactment dates by state and data source.

Initially, protective labor legislation was routinely challenged in court, and many of the earliest laws were eventually struck down by Supreme Court decisions.<sup>15</sup> Scholars describing the history of protective labor legislation emphasize a series of Supreme Court

<sup>14</sup>Florida did pass a seating law, but it applied to both men and women. Hence, we do not consider it as protective labor legislation for women.

<sup>15</sup>In Appendix Table A.1 we distinguish between protective labor laws that were first enacted and those that were enacted without repeal.

cases (Baer 1978; Goldin 2023) that shaped the scope of such regulations. The *Lochner v. New York* (1905) decision held that maximum hours legislation violated the freedom of contract doctrine. This ruling made it impossible to implement general protective labor legislation for all workers. Yet, in *Muller v. Oregon* (1908), the Supreme Court established the constitutionality of laws protecting women's health, de facto exempting protective labor laws from the freedom of contract doctrine (Huber 1976). The so-called Brandeis brief, filed in *Muller v. Oregon* (1908) by future Supreme Court Justice Louis Brandeis, in support of protective labor laws, is considered to have played a key role in winning the case.<sup>16</sup> Some scholars argue that these labor laws were implemented to circumvent the freedom of contract doctrine and as a first step toward establishing similar protections for all workers (Woloch 2015; Goldin 2023). While this may have been a motive for some proponents of protective labor laws, it is not sufficient to explain how such restrictions gained, and then lost, majority support. Moreover, during the same historical period, protective labor laws were passed in many other countries where general labor restrictions for all workers would not have been unconstitutional (see footnote 1).

The women's movement was divided over the issue of protective legislation.<sup>17</sup> As early as 1923, the National Women's Party proposed a federal Equal Rights Amendment (ERA) with the goal of eliminating specific regulations for women (Huber 1976). The League of Women Voters and the National Consumer League, on the other hand, were opposed to the amendment. The primary disagreement was whether such legislation was needed to protect women's maternal functions or whether it merely excluded women from high-paying jobs.

Newspaper articles document the divergent views on protective labor legislation held by different groups. In 1911, the Boston Globe reported: "Representative Keefe [...] said that a telephone office is harder upon the nervous system than a cotton mill and that, aside from the moral aspect, the telephone office is an improper place for a young woman at night" (Boston Globe, February 2, 1911). In 1914, the New York Factory Investigating Commission advocated for protective legislation, arguing that "... ignorant women can scarcely be expected to realize the dangers, not only to their own health, but to that of the next generation from such inhuman usage." (New York Times, May 1, 1914). In contrast, critics contended that protective legislation would impair women's labor market competitiveness relative to men. In 1911, an article in the Los Angeles Times observed:

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<sup>16</sup>The brief consisted of 113 pages largely filled with data and research results from medical and social scientists, arguing that excessive work hours were detrimental to women's health.

<sup>17</sup>See Woloch (2015), Chapter 5 for a detailed account of the debate among women on protection.

“In thousands of instances, it will mean that they will lose their places altogether and be replaced by men upon whom the restriction is not laid” (Los Angeles Times, March 15, 1911). Similarly, in 1920, the New York Times argued: “If the pending bill becomes a law, women will be ousted from all classes of work where the wage is high enough to attract men, and they will be forced back into the canneries, textile mills, domestic service, and kindred drudgery” (New York Times, January 18, 1920).

The era of protective legislation came to an end in the 1960s and 70s with a series of court decisions based on Title VII of the 1964 Civil Rights Act, which made discrimination based on sex illegal (Baer 1978; Goldin 2023). In particular, *Rosenfeld v. Southern Pacific Company* (1968) established the general principle that women could not be treated differently from men in the workplace.<sup>18</sup> *Weeks v. Southern Bell Telephone & Telegraph Company* (1969) was another landmark case. Lorena Weeks had worked as a telephone operator for Southern Bell and was denied promotion to switchman based on a Georgia law stating that women could not lift anything heavier than 30 pounds. The National Organization of Women (NOW), founded in 1966, represented her in the lawsuit challenging the dismissal. The primary argument used was that the notion that women could not lift 30 pounds was ridiculous given the number of women who routinely carried children of that weight. Although the case was initially lost in 1967, it was won on appeal two years later. Following these cases, the Equal Opportunity Commission ruled in 1969 that such laws were superseded by the Civil Rights Act. Subsequently, all federal courts deciding on similar cases followed this ruling (Baer 1978).

### 3 A Political-Economy Model of Protective Labor Laws

We now introduce a model to examine the political economy of women’s protective labor legislation. The economy is populated by a combination of singles and married couples. Men can be skilled or unskilled, and married women can either work in the market or engage in home production. The economy is subject to structural change that gradually shifts employment from agriculture in rural areas to a modern sector (comprising manufacturing and services) in cities. Each period, people choose where to live, which sector to work in, and married women decide whether to work at home or in the market. In addition, every period people vote on legislation that restricts women’s

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<sup>18</sup>Leah Rosenfeld was initially denied promotion from railroad telegrapher to station agent at the Southern Pacific Railroad Company, based on the argument that California’s labor laws barred women from lifting more than 25 pounds or working more than eight hours a day. Rosenfeld filed suit against Southern Pacific and the State of California in 1968. She won the case and California’s protective labor laws were declared unconstitutional.

labor rights. Our aim is to characterize the conditions under which majority support for restricting women's labor rights arises, and to identify the coalition of voters who favor such restrictions. In this section, we describe economic outcomes and the political equilibrium in a given period. Later, in Section 6, we extend the model to a dynamic setting that can be matched to historical data.

### 3.1 Households, Geography, and Production

The men in our model economy are characterized by a skill type, which can be either unskilled ( $U$ ) or skilled ( $S$ ). Among married women, there is heterogeneity in home-production productivity  $\psi \geq 0$ , which is either low,  $\psi = \underline{\psi}$ , or high,  $\psi = \bar{\psi}$ . Single women ( $F$ ) do not engage in home production. There are four types of married couples corresponding to the four possible combinations of the wife's and the husband's type. The set of household types in the economy is therefore given by:

$$\mathcal{H} = \underbrace{\{U, S, F\}}_{\text{single types}} \cup \underbrace{\{U, S\} \times \{\underline{\psi}, \bar{\psi}\}}_{\text{couple types}}.$$

We denote the measure of each household type  $h \in \mathcal{H}$  in the economy by  $N_h$ . The overall measure of households is normalized to one,  $\sum_{h \in \mathcal{H}} N_h = 1$ .

The economy is made up of two regions, rural and urban, which are distinguished by the available production technologies. In the rural area, the only technology is the agricultural sector  $a$ , whereas in the urban area, there are three modern sectors  $m$  (comprising manufacturing and services). Sectors produce different goods and employ different technologies. The three modern sectors indexed by  $i \in \{b, f, u\}$  are distinguished by restrictions on the use of women's versus men's labor. Specifically, sector  $f$  uses women but no unskilled men, sector  $u$  uses unskilled men but no women, and sector  $b$  sector uses both. This feature reflects the widespread occupational segregation during the study period. For example, textile factories might only employ female production workers whereas steel mills might only employ male production workers. Our results do not depend on the presence of gender segregation, but given the widespread historical use of segregated labor markets, we allow for them in our analysis.

The agricultural sector employs the production technology:

$$Y_a = X_{Fa}^\alpha X_{Ua}^\beta X_{Sa}^\gamma L^{1-\alpha-\beta-\gamma},$$

where  $X_{Ua}$ ,  $X_{Sa}$  and  $X_{Fa}$  denote labor supply in agriculture by unskilled men, skilled men,

and women, respectively, and  $L$  denotes land. Land is in fixed supply and normalized to one,  $L = 1$ . A key characteristic of the agricultural technology in terms of our political economy results is that women's and men's labor inputs are complements. This assumption reflects the fact that women and men usually carry out different tasks in family-based agriculture, with men typically specializing in field work and women tending to small animals and the vegetable garden.

Production in the modern sector  $b$  is carried out with the technology:

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

where  $X_{Fb}$ ,  $X_{Sb}$ ,  $X_{Ub}$  denote labor supply in this sector by women, skilled men, and unskilled men, respectively. The productivity parameter  $A$  captures the overall productivity of the modern sector relative to the agricultural sector. The parameter  $\phi < 1$  is the gender productivity gap in the modern sector, which may reflect gender differences in physical strength or work experience.  $\xi$  captures the impact of protective labor legislation, as described below. The key difference between the modern and agricultural technologies is that in the modern sector, unskilled men and women are substitutes in production. Sectors  $f$  and  $m$  use the same technology as sector  $b$  subject to the restriction that either female labor or unskilled male labor cannot be used. We therefore have:

$$Y_f = AX_{Sf}^{1-\delta}(\xi\phi X_{Ff})^\delta, \quad (2)$$

$$Y_u = AX_{Su}^{1-\delta}X_{Uu}^\delta. \quad (3)$$

The output of the three modern sectors is combined by a competitive industry to produce a composite modern good  $Y_m$ :

$$Y_m = \left( (1 - \theta_f - \theta_u)^{\frac{1}{\eta}} Y_b^{\frac{\eta-1}{\eta}} + \theta_f^{\frac{1}{\eta}} Y_f^{\frac{\eta-1}{\eta}} + \theta_u^{\frac{1}{\eta}} Y_u^{\frac{\eta-1}{\eta}} \right)^{\frac{\eta}{\eta-1}}. \quad (4)$$

Here  $\eta > 0$  is the elasticity of substitution within the modern sector, and  $\theta_f$  and  $\theta_u$  reflect how widespread occupational and industrial segregation by gender is in the economy. Modern sector goods  $Y_m$  trade for agricultural goods  $Y_a$  at relative price  $p_m$ .

### 3.2 Protective Legislation

The impact of protective legislation is captured through the parameter  $\xi$ , which scales women's labor supply in the modern production functions (1) and (2). If there is no protective legislation, we have  $\xi = 1$ . Protective legislation is modeled as a reduction

in  $\xi$  to a lower level  $\bar{\xi} < 1$ ; that is, protective legislation reduces the efficiency units of labor provided by women working in the modern sector. This captures that protective legislation either directly impacts women's ability to supply labor (as a consequence of maximum hours laws or night shift bans) or makes their work less productive due to specific restrictions such as weight laws or seating laws. The level of  $\xi$  is decided by majority vote. In each period, voters choose their preferred option for imposing protective legislation or leaving women's work unrestricted,  $\xi \in \{\bar{\xi}, 1\}$ , and the policy that gains majority support is implemented. Depending on whether there is women's suffrage, the electorate consists of either all adults or only men.

Note that protective legislation is modeled in a stark way, with no direct benefits arising from the restrictions. Hence, imposing protective legislation unambiguously lowers economic efficiency, and such legislation would never be put in place by a social planner who is able to redistribute income. Nonetheless, we will see that such a policy can gain majority support, in a way that is consistent with the empirical evidence.<sup>19</sup>

### 3.3 Household Decisions

The utility of households depends on a composite market consumption good  $C$  and a home-produced good  $Q$ . We consider a unitary model in which all consumption is public within the household and the husband's and wife's interests are aligned.<sup>20</sup> Hence, for couples,  $C$  and  $Q$  correspond to the total consumption of each good in the household. The utility function is given by:

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

The market consumption good  $C$  is a bundle of modern sector goods ( $c_m$ ) and agricultural goods ( $c_a$ ):

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

Here  $\epsilon \geq 0$  is the elasticity of substitution between  $c_a$  and  $c_m$ .

Home goods  $Q$  can only be produced by urban married women who do not work in the market sector. Specifically, an urban homemaker wife produces home goods  $Q = \psi$ ,

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<sup>19</sup>Among the actual policies that were historically implemented, female-specific minimum wages fit less well into our framework, as this brings up the issue of the distribution of rents, which do not arise in our competitive framework. Below, we show that the empirical patterns regarding minimum-wage laws are also distinct from the other types of laws, suggesting that, here, additional economic forces are at work.

<sup>20</sup>We discuss an extension with private consumption and bargaining between spouses in Section 4 below.



while all other women produce zero home goods,  $Q = 0$ .<sup>21</sup>

The household decision problem consists of three steps. First, the household chooses a location: rural or urban. Second, household members must decide where to work. In the rural area, everyone works in the agricultural sector  $a$ . Urban married women choose whether to work in a market sector,  $d = 1$ , or engage in home production,  $d = 0$ . Urban working men choose  $i \in \{b, u\}$  and urban women who pick market production,  $d = 1$ , choose a sector among  $j \in \{b, f\}$ . Third, household members allocate household income between  $c_a$  and  $c_m$ .

Given household income  $I_h$ , a household's consumption allocation decision problem is given by:

$$\max_{c_a, c_m} \{\ln(C)\}$$

subject to:

$$\begin{aligned} I_h &= c_a + p_m c_m, \\ C &= \left( c_a^{\frac{\epsilon-1}{\epsilon}} + c_m^{\frac{\epsilon-1}{\epsilon}} \right)^{\frac{\epsilon}{\epsilon-1}}. \end{aligned}$$

We denote the resulting household demand for consumption goods by  $c_a^*(I_h)$ ,  $c_m^*(I_h)$ , and  $C^*(I_h)$ . As single women and men do not face a labor supply decision (they always work), they simply choose the area and sector that offers the highest wage. Couples' choices of area, sector, and labor supply are described by:

$$\max_{i, j, d} \{\ln(C^*(I_h)) + Q\}$$

subject to:

$$\begin{aligned} I_h &= w_{si} + d w_{Fj}, \\ Q &= (1 - d)\psi, \end{aligned}$$

where  $s \in \{U, S\}$ ,  $\psi \in \{\underline{\psi}, \bar{\psi}\}$ , and  $w_{si}$  and  $w_{Fj}$  denote equilibrium wages. The choices are also subject to the following restrictions: couples must either both be in the rural area and choose agriculture ( $i = j = a$ ,  $d = 1$ ) or both be in the urban area where they work in the modern sectors or women choose home production ( $i \in \{b, u\}$ ,  $j \in \{b, f\}$ ,

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<sup>21</sup>The assumption that rural married women do not engage in home production captures that domestic work on the farm is included in women's agricultural labor supply  $X_{Fm}$ , since it contributes to the production of agricultural goods. This assumption does not affect our results as it does not alter rural women's political preferences.

$d \in \{0, 1\}$ ). We assume that  $\{\underline{\psi}, \bar{\psi}\}$  are such that women in the modern sectors always work if  $\psi = \underline{\psi}$  and never do if  $\psi = \bar{\psi}$ . This can be ensured by respectively setting these parameters sufficiently close to zero, and sufficiently large.<sup>22</sup>

### 3.4 Timing and Equilibrium

Households begin making decisions before the policy  $\xi$  is determined, and therefore must form expectations. Hence, a period starts with households forming a common belief  $\xi^*$  about which policy  $\xi \in \{\bar{\xi}, 1\}$  will be realized. Given this belief, households choose whether to live in the rural or the urban area. Next, households vote on the policy by stating their true preferences over  $\xi \in \{\bar{\xi}, 1\}$ . The policy that receives more than 50 percent of the votes is passed. The relevant electorate consists of all adults if women's suffrage is in place or, alternatively, only men if women do not yet have the right to vote. After the policy is in place, urban workers choose their employment sector, urban women decide whether to work at home or in the market, firms choose labor inputs, wages and prices are realized, and households allocate their consumption. Households cannot switch their area after the vote has taken place. Given that people correctly anticipate the outcome of the vote, they would not want to move ex-post anyway. Nevertheless, assumptions on mobility matter for the counterfactual that is evaluated when forming policy preferences. The assumption is motivated by the observation that switching areas and, specifically, switching into agriculture is subject to much larger adjustment costs compared to accepting a different job within the urban area.<sup>23</sup>

We can now define an equilibrium as follows:

**Definition 1** (Politico-Economic Equilibrium). *A politico-economic equilibrium is given by a policy  $\xi$ , a belief  $\xi^*$ , a relative goods market price  $p_m$ , wages  $\{w_{Fa}, w_{Fm}, w_{Ua}, w_{Um}, w_{Sa}, w_{Sm}\}$ , a labor allocation  $\{X_{Fa}, X_{Fb}, X_{Fu}\}$ ,  $\{X_{Ua}, X_{Ub}, X_{Uu}\}$ ,  $\{X_{Sa}, X_{Sb}, X_{Sf}, X_{Su}\}$ , labor supply decisions  $\{d_{U\underline{\psi}}, d_{U\bar{\psi}}, d_{S\underline{\psi}}, d_{S\bar{\psi}}\}$ , a goods market allocation  $\{c_a^h, c_m^h\}_{h \in \mathcal{H}}$  and output in the two regions  $\{Y_a, Y_m\}$  such that:*

1. *Given  $p_m$ , wages, and  $\xi^*$ , households' choices maximize their utility.*
2. *Given  $p_m$ , wages, and  $\xi^*$ , the sectoral allocation maximizes firms' profits.*
3. *The labor market clears:*

$$N_U + N_{U\bar{\psi}} + N_{U\underline{\psi}} = X_{Ua} + X_{Ub} + X_{Uu},$$

<sup>22</sup>Below, in Section 4, we discuss how results change for more general distributions of  $\psi$ .

<sup>23</sup>In addition to spatial separation, here it also matters that agriculture usually takes place on family farms, which would first need to be acquired or sold after a move to or from the rural area.

$$N_S + N_{S\bar{\psi}} + N_{S\underline{\psi}} = X_{Sa} + X_{Sb} + X_{Sf} + X_{Su},$$

$$N_F + \sum_{i \in \{U, S\}} \left( d_{i\underline{\psi}} N_{i\underline{\psi}} + d_{i\bar{\psi}} N_{i\bar{\psi}} \right) = X_{Fa} + X_{Fb} + X_{Ff}.$$

4. *The goods market clears:*

$$Y_j = \sum_{h \in \mathcal{H}} c_j^h N_h \text{ for } j \in \{a, m\}.$$

5. *The policy  $\xi \in \{\bar{\xi}, 1\}$  is preferred by a majority of voters over the alternative.*

6. *Beliefs are rational:  $\xi = \xi^*$ .*

### 3.5 The Origin of Political Support for Protective Legislation

We can now characterize how households are affected by protective labor legislation, and hence who will support the introduction of such a law. There are two types of effects to consider. First, the direct effect on working women, whose earnings capacity is reduced if a law is passed. Second, the general equilibrium effects on wages and prices, which can potentially affect all households in the economy.

Consider, first, the impact on wages in the modern sectors. Given timing assumptions, there is labor mobility across the modern sectors even after the policy is chosen, which implies equalization of wages across sectors. This leads to the following aggregation result:

**Proposition 1** (Aggregation). *Consider the labor allocation within the modern sector for given total labor supply  $X_{Fm}$ ,  $X_{Um}$ ,  $X_{Sm}$  in the urban area. If  $\theta_f$  and  $\theta_u$  are sufficiently small such that in sector  $b$  there is positive equilibrium labor supply from both women and unskilled men, the modern sectors aggregate, and the economy behaves as if there is a single modern production function given by:*

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

The proof of the proposition is given in Appendix B. The case of aggregation is the empirically relevant case, because it only requires that both women and men supply labor to at least some sectors, which is what we observe during the period considered. For the remainder of the analysis, we will therefore focus on the case of aggregation, and express wages and other outcomes as a function of the agricultural and modern sector only.

Labor mobility and the resulting equalization of wages across sectors is important for our political-economy results below. In particular, even unskilled men in male-only industries stand to benefit from restricting women's work, because the economywide reduction in the total supply of unskilled labor will push up wages for all unskilled workers in the urban area. This equalization of wages across sectors occurs by a movement (after protective labor laws are imposed) of some male workers from the male-only to the mixed sector, in response to the higher demand for unskilled labor in that sector after the effective labor supply of women is reduced.

With the aggregation result in place, we can now turn to our main result on the composition of political support for and opposition to protective labor laws:

**Proposition 2** (Political Support for Protective Labor Laws). *If the conditions of Proposition 1 are satisfied,  $\epsilon$  is sufficiently large, and men supply more total unskilled labor than women in the modern sector ( $X_{Um} > X_{Fm}$ ), the political preferences for the introduction of protective labor laws are as follows:*

- *The introduction of protective labor laws is supported by the following groups:*
  1. *Single unskilled men working in the modern sectors.*
  2. *Married couples composed of unskilled men working in the modern sectors and stay-at-home wives.*
- *The introduction of protective labor laws is opposed by all other groups:*
  1. *Single women working in the modern sectors.*
  2. *Couples composed of unskilled men working in the modern sectors and working wives.*
  3. *Households including skilled men working in the modern sectors.*
  4. *Everyone in the rural sector.*

The proof of the proposition is given in Appendix B. Intuitively, single unskilled workers in the modern sectors experience a rise in their wages when women's labor supply is restricted, and hence they support protective labor laws. The same logic applies to couples where an unskilled worker is the sole earner. Conversely, single women working in the modern sectors experience a direct loss in income from protective labor laws and therefore oppose the laws. Couples where the husband is an unskilled modern-sector worker and the wife also works face a tradeoff, in that the husband would experience higher wages as a result of protective legislation, but the wife would lose income. The direct effect on the

wife turns out to dominate, such that these couples also oppose restrictions. Households including skilled workers do not benefit from protective legislation because skilled labor and women's labor are complements. Lastly, rural households are affected by legislation through relative price effects. Given that labor is not mobile ex post between the rural and urban areas, there is no change in the labor allocation or the output of this sector. However, people are still affected because restrictions lower the supply of the modern good  $m$ , which lowers the relative price of agricultural goods. Hence, everyone in the rural area experiences a loss in real income and therefore opposes restrictions.

The condition  $X_{Um} > X_{Fm}$  is the empirically relevant case for the period considered, and is a sufficient (but not necessary) condition for the direct income effect to exceed the indirect wage effect in married couples where both spouses supply unskilled labor. The condition on  $\epsilon$  is imposed to ensure that wage and income effects are larger than effects that run through the relative price of the modern-sector good. We regard this as the relevant case given that we are considering state-level laws; any relative price effects would be substantially dampened through trade with other states.

Given this result and the assumption of majority voting, restrictions will be introduced if the groups in favor make up a majority of the voting population (generally all adults, or only male adults before the introduction of female suffrage). Before confronting the predictions of the theory with empirical evidence, we consider how the results would be modified in a set of model extensions.

## 4 Equilibrium Unemployment and Other Extensions

In our baseline model, the labor market always clears, so that effects on individuals other than the directly affected women (i.e., urban female workers who are constrained by the law) run solely through wage and price effects. Notably, much of the expansion of protective legislation in the data occurred over a period of elevated unemployment, including the Great Depression and the preceding decades. Here, we consider how our results change in an extension of our baseline model that allows for labor rationing and unemployment.

We introduce the possibility of unemployment in a simple fashion by making the unskilled wage in the modern sectors sticky. Specifically, we impose that the unskilled wage is given by:

$$w_{Um} = \frac{w_{Fm}}{\xi\phi} = \max \{ \nu\bar{w} + (1 - \nu)\text{MP}(X_{Fm}, X_{Sm}, X_{Um}, p_m), \text{MP}(X_{Fm}, X_{Sm}, X_{Um}, p_m) \}.$$

Here  $MP(X_{Fm}, X_{Sm}, X_{Um}, p_m)$  denotes the marginal product of unskilled labor and hence the competitive wage, given by:

$$MP(X_{Fm}, X_{Sm}, X_{Um}, p_m) = p_m A \delta \left( \frac{X_{Sm}}{\xi \phi X_{Fm} + X_{Um}} \right)^{1-\delta}.$$

This formulation captures downward wage stickiness: the wage is a weighted average between the competitive wage and a fixed term  $\bar{w}$ , as long as this term exceeds the competitive wage. The presence of the competitive wage ensures that there is still an impact of labor supply changes on relative wages in the usual direction, but the fixed component implies that this impact is muted compared to the full-employment equilibrium. The parameter  $\nu$  determines the degree of the wage stickiness, where  $\nu = 1$  would correspond to a fully rigid wage and  $\nu = 0$  to a fully flexible wage.

If the wage is above the competitive wage, there will be rationing in the market for unskilled labor: only a fraction of unskilled men and working women can find employment. This is consistent with the work of [Michaillat \(2012\)](#), who shows that in economic downturns, rationing rather than search frictions accounts for most unemployment. Uncertainty over unemployment is resolved after the vote on protective legislation takes place. We assume that all workers in the market for unskilled labor have the same probability of employment, proportional to the overall ratio of the rationed labor demand to labor supply. To ensure that consumption stays positive even for the unemployed, we also assume that there is an actuarially fair unemployment insurance scheme that taxes unskilled modern-sector workers and working modern-sector women in proportion to their effective labor supply and fully insures the unemployed, implying that each worker is paid their expected wage. Other than the sticky wage assumption and rationing in the modern unskilled labor market, the equilibrium for this extension is analogous to Definition 1. We now examine the political economy of protective legislation in this modified economy.

**Proposition 3** (Political Support for Protective Labor Laws with Unemployment). *If the conditions in Proposition 1 are satisfied,  $\epsilon$  and  $\nu$  are sufficiently large, men supply more total unskilled labor than women in the modern sector ( $X_{Um} > X_{Fm}$ ), and the wage rigidity is binding, i.e.,  $\bar{w} > MP(X_{Fm}, X_{Sm}, X_{Um}, p_m)$ :*

1. *The political preferences for the introduction of protective labor laws in the model with unemployment are the same as those in Proposition 2. That is, whether a given group supports or opposes the legislation remains unchanged.*

2. *The groups that benefit from protective legislation now benefit more strongly, i.e., earnings increase by a larger percentage compared to the baseline case.*
3. *The negative impact of protective legislation on individuals and couples that do not supply modern-sector unskilled or female labor (and who are thus affected solely through wage and price effects) is smaller compared to the baseline case.*

The proof of the proposition is given in Appendix B.

For those who gain from protective legislation, namely unskilled modern-sector single men or sole-earner married men, the main benefit is now a higher probability of employment rather than a slightly higher wage. In the limit with a fully sticky wage, the increase in the employment probability and hence in expected income is proportional to the reduction in the overall supply of efficiency units of unskilled labor that is generated by the law.

For the groups that lose solely through wage and price effects, the impact depends on the change in labor demand due to the protective legislation. In the limit with a fully sticky wage, this impact goes to zero, because total unskilled labor supply remains the same; the only change is in who gets to supply this labor. Thus, for these indirectly affected groups, the cost of protective labor laws declines as the wage becomes more sticky.

In our majority-voting framework, only the sign of the impact on a particular group matters, and hence the political equilibrium remains unchanged. In reality, however, the intensity of the impact on different groups may matter for whether legislation is actually implemented (as it would in a probabilistic voting framework). Hence, the pressure to introduce protective legislation may have been greater in periods of high unemployment. This mechanism creates a connection to other political issues such as immigration restrictions, which were expanded in the United States during this same historical period that saw protective legislation gain popularity.<sup>24</sup>

**Continuous Female Home Productivity** Another possible extension is to allow for more flexibility in the determination of women's labor supply. That is, rather than having a two-point distribution  $\psi \in \{\underline{\psi}, \overline{\psi}\}$  for home-production productivity that maps directly onto participation, one can model  $\psi$  as drawn from a continuous distribution. The main difference from the simpler case considered here is that some married women would drop

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<sup>24</sup>In this vein, Landes (1980) argues that the issues of protective labor legislation and immigration are linked because maximum hours restrictions were perceived to be particularly binding for immigrant women.



out of the labor force with the introduction of protective legislation because they were already close to the margin of participation without the law. The political preferences of couples where the wife's labor supply responds to the law are ambiguous. However, given that empirically the employment effects of protective legislation were moderate, such an extended model would leave our overall conclusions unchanged.

**Benefits from Protective Labor Laws** In our baseline model, protective legislation does not benefit working women. What might change if such laws restrict women's effective labor supply (as we assume), but also improve their working conditions in some way? This possibility can easily be incorporated into our model by, for example, lowering the disutility of work for women when protective legislation is in place. The implications of such an extension for our main results would depend on the size of the benefits. For small benefits, the coalitions for and against protective legislation would remain unchanged. For larger benefits, couples composed of unskilled men in the modern sector and working wives would start to favor restrictions. While this would do little to change the implications of our theory concerning the introduction of restrictions, the rising labor supply by married women would no longer lead to the end of restrictions. For even larger benefits, even single working women would favor restrictions. However, we regard such large benefits of labor restrictions as unrealistic. In the latter case, firms and female workers would be jointly better off with restrictions. Hence, they could gain the same benefits by implementing analogous working conditions on their own, even in the absence of protective legislation. This observation suggests that the binding components of protective labor laws could not have improved the joint welfare of working women and their employers.

**High-Skilled Female Labor Supply** In our model, women in the modern sectors always supply unskilled labor. This modeling choice is motivated by the observation that protective labor laws primarily targeted sectors (particularly manufacturing) where most of women's labor supply was indeed in competition with that of unskilled men. Still, women also worked in skilled occupations, and increasingly so after World War II.

Extending our model to include skilled labor supply by women in the modern sector, which would then be in competition with skilled men, is straightforward. The political economy implications of such an extension would depend on whether protective labor laws would also apply to skilled women. Our interpretation is that the laws considered in our analysis were, in most cases, not relevant for skilled occupations. For example, for

teachers, night-work restrictions would not be an issue, and minimum wage restrictions would be unlikely to be binding. If some women provide skilled labor but protective labor laws only constrain women providing unskilled labor, the political-economy implications of our theory would be largely the same. Specifically, skilled women would oppose protective legislation, albeit not because they are directly constrained by them, but because their labor is complementary to the unskilled labor provided by other women.

Nevertheless, if women provide skilled labor, the skilled men competing with them would have an incentive to constrain women's labor supply. Though, if these restrictions applied specifically to skilled occupations, they would be unlikely to gain majority support because skilled men in the modern sector make up only a small share of the electorate. Hence, our theory predicts that such restrictions are unlikely to be passed. Instead, skilled men might attempt to restrict women in other ways, such as marriage bars, which were widely used to exclude married women from working in specific skilled occupations such as teaching. While it would be interesting to extend our model to analyze such restrictions, doing so goes beyond the scope of this paper.

**Bargaining between Spouses** The model could also be modified to include a collective model of couples' decision-making with private consumption and distributional conflict within households. Consider a setting where consumption is private within couples, with the wife consuming  $C_f$  and the husband  $C_m$ . Relative bargaining power depends on outside options, which can be accounted for by including relative wages as a distribution factor. For example, the objective function for an urban couple composed of an unskilled man and a working woman would be given by:

$$\mu(w_F/w_U) (\ln(C_f) + Q) + (1 - \mu(w_F/w_U)) (\ln(C_m) + Q),$$

where the wife's bargaining weight satisfies  $0 < \mu(w_F/w_U) < 1$  and is increasing in the wife's relative wage  $w_F/w_U$ .

This model leaves our results on the impact of protective legislation on wages and prices intact, but there is now an additional channel running through bargaining power within the family. Specifically, among urban couples who both work in the modern sector, husbands gain and wives lose bargaining power when protective legislation is introduced. If this channel is strong, it can dissolve the political alignment of husbands and wives, with unskilled husbands voting for restrictions even if their own wife works, and wives voting against such laws. An empirical implication would then be that support for protective legislation should decline once women gain the right to vote. As we show

below, this prediction is not supported by the data, which is why we employ the simpler model with aligned preferences within households for the main analysis.

## 5 Model Predictions versus Empirical Evidence

Our model makes clear predictions for both the conditions under which we should expect protective labor laws to be introduced and when we should expect them to be abolished. In this section, we show that empirical evidence for the United States matches these predictions remarkably well.

### 5.1 Predicted Support for Protective Legislation at the National Level

Proposition 2 in our theoretical analysis shows that voters in two types of households are predicted to support protective labor legislation: single, unskilled men working in the modern sector, and married couples where the husband is the sole earner and provides unskilled labor in the modern sector. Our theory suggests that protective legislation will be introduced when these two groups account for the majority of the voting population, and that the protective era will end when these groups lose their majority.

We test these predictions by classifying the US population into the same household types as in our model based on census data. We proceed in two steps. First, we assign households to either the agricultural or modern sector using industry codes.<sup>25</sup> Second, we differentiate between high- and low-skilled men based on occupation codes. We rely on the classification developed by Autor and Dorn (2013) and identify high-skilled workers as those in their highest-skilled occupation group. Specifically, we categorize managers and professionals (including teachers), technical and public security occupations, and roles in financial sales as high-skilled.<sup>26</sup>

We restrict our sample to individuals aged 21 to 65. Until 1971, the voting age in the United States was 21, after which the 26th Amendment lowered the minimum voting

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<sup>25</sup>If the two spouses in a married couple have different industry codes, we use the husband's code. This happens in only about 1 percent of observations in the baseline sample. See Appendix D.1 for details on how we map Census industry codes to sectors.

<sup>26</sup>See Appendix D.1 for details on how we map Census occupation codes to skill types. In classifying workers by skill, the key issue for the purposes of our analysis is whether there is labor market competition between women and men within the occupation, and whether the occupation is affected by the protective labor laws. Notably, there are some skilled occupations with sizable female employment (such as teaching) that were not directly affected by the laws considered here. Efforts to limit competition may nonetheless have been present (notably in the form of marriage bars, see Goldin 1988a), but this would not affect the political tradeoffs in our analysis.

age to 18 for federal and state elections.<sup>27</sup> In the model, all men (both married and single) and all single women work. In the data, a small fraction of these groups report being out of the labor force. We exclude these individuals—and in the case of married men, their households—assuming they are distributed across sectors, occupations, and marital status in the same way as those who are employed. Similarly, we exclude households with missing industry or occupation codes.<sup>28</sup>

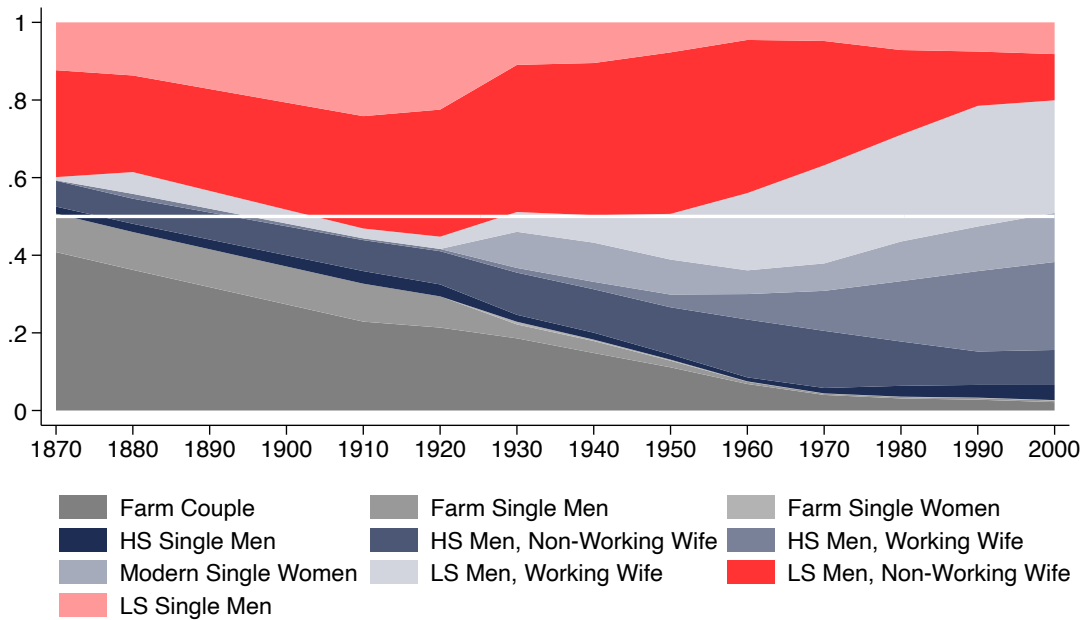


Figure 3: Composition of the Voting Population, 1870-2000

*Notes:* Displayed is the composition of the voting population, computed based on the decennial US Census 1870–2000. From 1870 to 1950 (except 1900), we use the full count Census. In 1900, we use the 5% sample and from 1960 onward the 1% sample. Groups that, according to our model, vote in favor of protective labor legislation are displayed in shades of red. Groups that, according to our model, vote against protective labor legislation are displayed in shades of gray and blue. The share of a group is computed as the number of households of that type, weighted by the household type’s number of votes, divided by the overall number of eligible voters. Up until 1920, we count only men as eligible voters, while in later decades, we include both men and women. In Appendix Figure D.1, we plot voting shares for men and women separately.

Figure 3 displays how the household types from the model evolve in the US population between 1870 and 2000. Since we are interested in predicted support for protective

<sup>27</sup>We exclude individuals over the age of 65 since they are no longer active in the labor market and may be indifferent regarding protective legislation. Another interpretation is that retirees’ preferences are shaped by their children’s economic interests, which would replicate the breakdown of political preferences among the working population and hence lead to the same results.

<sup>28</sup>For occupation codes, missing codes result from non-occupational responses and unknown or missing occupations. For industry codes, missing codes result from industries categorized as unclassifiable.

legislation among voters, up until 1920 we include only men in Figure 3, while in later decades, we include both men and women.<sup>29</sup> As a result, the population shares of the voting population differ from simple population shares until 1920.<sup>30</sup>

The figure shows that the two groups that are predicted to support protective legislation (displayed in red) were initially in the minority, but reached a majority of votes in 1910. This is precisely when protective legislation in the United States began to rapidly spread (as displayed in Figure 1). Groups opposing restrictions didn't regain a substantial majority until the 1960s. This timing coincides with the enactment of the Civil Rights Act in 1964, followed by a series of Supreme Court decisions that deemed gender-specific labor legislation unconstitutional. The vote share of groups predicted to support protective legislation thus closely aligns with the real-world rise and fall of these laws.

To ensure that sample restrictions do not bias our results, we perform two robustness checks. First, we relax the age restriction, extending the sample to include all individuals aged 21 to 99 (see Appendix D.2 for details). Appendix Figure D.3 shows that the predicted support in this extended sample remains nearly unchanged. Second, we proportionally assign individuals out of the labor force to existing household types (see Appendix D.2 for details). Appendix Figure D.4 confirms that this adjustment does not significantly alter predicted voting shares.<sup>31</sup>

## 5.2 State-Level Evidence from the Introduction of Protective Legislation

The timing of the introduction of protective labor laws differs considerably across states (see Figure 2). A more demanding test is to check whether, in addition to being consistent with national patterns, our theory can also account for this variation across states. To this end, we compile a comprehensive dataset with information on five types of protective laws. We combine this data with predicted state-level voting shares derived from US Census data, constructed using the same definitions and assumptions applied to compute nationwide predicted voting shares in Section 5.1.<sup>32</sup> The resulting dataset consists of a panel of states observed every decade from 1870 to 2000.

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<sup>29</sup>This approach aligns with the historical timeline of women's suffrage. The 19th Amendment, granting women the right to vote, was ratified in August 1920. Although a presidential election occurred in November 1920, the president did not take office until March 1921. Consequently, we assume that women's suffrage first began influencing policy in 1921. In the decennial US Census data, the first observation after women gained suffrage is the 1930 Census.

<sup>30</sup>Population shares are presented in Appendix Figure D.2.

<sup>31</sup>We also verify that our dataset is consistent with observed changes in female labor force participation over time; see Appendix Figure D.5.

<sup>32</sup>Fourteen states granted women full suffrage in state and local elections between 1887 and 1918 (see Appendix Table A.2). For these states, we include women in our predicted state-level voting shares beginning in the year they were granted full suffrage at the state level.

State-by-state variation occurs primarily in the introduction of protective legislation, whereas the end of the protective era was the result of legal decisions taken at the federal level. We therefore initially focus on the period of 1870 to 1950, after which no additional laws were introduced. We define state- and time-specific indicators for the presence of protective legislation. Our main measure is an indicator for whether any protective legislation was in place (“Any Law”). This indicator is initially zero in all states and then changes to one in the decade when the first law is enacted, and stays one thereafter. We are also interested in potential variation across different types of restrictions. We therefore construct additional indicators for the presence of either maximum hours laws or night work restrictions (“Work Time Laws”), for whether a weight law or seating law was in place (“Work Condition Laws”), and for whether a women-specific minimum wage was passed (“Minimum Wage Laws”). We regress each of these indicators on the predicted support for protective legislation in a given state and year.

Table 1: Labor Laws and Predicted Support for Protective Legislation

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

Notes: Standard errors in parentheses. \*  $p < .10$ , \*\*  $p < .05$ , \*\*\*  $p < .01$ . Period: 1870-1950. All regressions use population weights. Rows I-IV. each correspond to a different law indicator that is used as outcome variable. Columns (1)–(4) correspond to different regression specifications with (1) no fixed effects, (2) time fixed effects, (3) state fixed effects, and (4) state and time fixed effects. For the underlying data on the introduction of laws by state, see Appendix Table A.1. Predicted support is computed based on the decennial US Census as the predicted voting share in favor of protective laws.

Table 1 displays the regression results. Each estimate reports the coefficient on predicted support (the state-level share of voters predicted to support restrictions) from a different

regression. The rows relate to the different law indicators, whereas each column contains a different regression specification, with and without state and time fixed effects.

We find that protective legislation is more likely to be present when predicted support is high. Column (1) shows a strong raw correlation between predicted support and any of our protective law indices. However, some of this correlation may reflect that both predicted support and the passing of restrictions trend upward over time. Column (2) introduces time fixed effects to control for the national trend in the passing of protective legislation and zoom in on state-by-state variation. In this specification, the coefficient estimates are smaller but in each case predicted support remains highly correlated with the introduction of legislation. Columns (3) and (4) add state fixed effects to the regressions. Given the nature of the data (where each indicator in each state changes from 0 to 1 just once), a specification with both time and state fixed effects is demanding, since the fixed effects on their own can account for much of the variation. Nevertheless, even in the most demanding specification, the “Any Law,” “Work Time Laws,” and “Work Conditions Laws” indicators remain highly significant, with little change in the magnitude of the estimated coefficient. Thus, even after controlling for the national time trend and a state-level proclivity for restrictions, rising predicted support in a given state is associated with the introduction of protective legislation. The one exception to this pattern is the coefficient on the “Minimum Wage Laws” indicator, which turns insignificant with state fixed effects and negative with state and time fixed effects. This is perhaps not surprising, as minimum wage laws are different in nature from the other restrictions; unlike in our model, minimum wages do not directly restrict productivity and instead raise distributional issues that we abstract from.<sup>33</sup> Overall, the state-level evidence provides strong support for our theory linking restrictions that limit women’s productivity to men’s desire to protect themselves from competition.

### 5.3 Evidence from The End of Protective Legislation

As described in Section 2, the era of protective legislation ended after the passage of the 1964 Civil Rights Act, which led to a series of court cases that deemed protective legislation unconstitutional. This limits our ability to further test our theory by leveraging cross-state variation in the timing of the repeal of specific laws.

Nonetheless, we can exploit that some states adopted Equal Rights Amendments (ERAs) to their state constitutions.<sup>34</sup> These amendments typically specify that equal rights under

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<sup>33</sup>Moreover, minimum wages for all workers, including men, were introduced in the manufacturing sector in 1938 through the Fair Labor Standards Act.

<sup>34</sup>Between 1879 and 1998, twenty states adopted such state ERAs. See Appendix Table A.2 for details.



the law shall not be denied on the basis of sex.<sup>35</sup> In addition to state ERAs, some states also voted on amending the US Constitution to include a federal Equal Rights Amendment (which was ultimately never ratified). Protective legislation was a central issue in the debate on equal rights amendments.<sup>36</sup> Women’s groups against protective legislation supported ERAs (e.g., the National Women’s Party), while those in favor of such laws opposed ERAs (e.g., the League of Women Voters).<sup>37</sup> Thus, we believe that ERAs are a good proxy for the end of protective legislation.

Specifically, we use data from [Gladstone \(2004\)](#) and [Crowley \(2006\)](#) to construct two indicators: one capturing the adoption of state-level ERAs and the other capturing state-level votes for ratifying the federal ERA. These indicators are set to zero prior to the adoption of a state ERA (or, respectively, a vote in favor of the federal ERA), and change to one in the decade in which a state ERA is adopted (or a vote in favor of the federal ERA is cast) and stay one for the rest of our sample period, which ranges from 1870 to 2000. We regress the ERA indicators on state-level predicted support for protective legislation. [Table 2](#) displays the results. The predicted support for protective legislation is strongly negatively associated with the passage of state ERAs, even when controlling for state and time fixed effects. Similarly, we find that states with larger predicted support for protective legislation were less likely to vote in favor of amending the US Constitution to include the federal ERA. Finally, five US states rescinded their initial support for the federal ERA. Excluding these states from the analysis further strengthens the observed relationship: states with larger predicted support of protective legislation were less likely to support the federal ERA. These results further strengthen the empirical evidence in favor of our theory.

## 5.4 Evidence from Individual-level Data

We further support our theory by supplementing the state-level evidence with individual-level data on attitudes toward working women from the National Longitudinal Surveys, specifically the early cohorts of Older Men (NLSM) and Mature Women (NLSW). This evidence sheds light on whether our theoretical predictions for which groups should support or oppose protective labor laws are empirically plausible. A limitation is that

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<sup>35</sup>The exact wording varies by state. For details, see [Gladstone \(2004\)](#). See also [Wheaton \(2022\)](#) for further background on state ERAs.

<sup>36</sup>See for example [Baer \(1978\)](#) and [Goldin \(2023\)](#) on this point.

<sup>37</sup>The National Women’s Party introduced a federal ERA into Congress for the first time in 1923. From then on, the proposal for an ERA was introduced on an annual basis until it passed through Congress in 1973 ([Kessler-Harris 2018](#)). However, since it was not ratified by enough states, it did not become part of the constitution.

Table 2: ERAs and Predicted Support for Protective Legislation

	State ERAs		Federal ERA Ratified		Federal ERA Ratified w/o rescission	
	(1)	(2)	(3)	(4)	(5)	(6)
Predicted Support	-0.77*** (0.13)	-0.73*** (0.17)	-1.19*** (0.12)	-0.92*** (0.12)	-1.09*** (0.14)	-0.94*** (0.13)
Time FE		X		X		X
State FE		X		X		X

*Notes:* Standard errors in parentheses. \*  $p < .10$ , \*\*  $p < .05$ , \*\*\*  $p < .01$ . Time range: 1870–2000. The regressions use population weights. Five states rescinded their ratification of the federal ERA after initially supporting it. We therefore exclude the ratification dates for Idaho, Kentucky, Nebraska, South Dakota, and Tennessee in columns (5) and (6).

the survey evidence only speaks to broader attitudes toward working women, rather than explicitly about views on protective labor laws. For example, a socially conservative individual may personally disapprove of women working outside the home, without necessarily supporting legal restrictions that impose this view on others. Still, it appears likely that these attitudes are at least broadly related to political views concerning restrictions on working women. We use these data to test the key prediction of our model, namely that support for protective legislation should stem from unskilled men and their spouses, but only if the working man is the sole earner in the family.

In both the NLSM and the NLSW, respondents were asked the following question: “How do you feel about a married woman with children between the ages of 6 and 12 taking a full-time job outside the home if it is absolutely necessary to make ends meet?” This question was asked to female respondents in 1967 and to male respondents in 1971, at the end of the era of protective legislation. We code the responses on a scale from -2 to 2, where a higher value corresponds to a more supportive attitude toward working women (see Appendix D.3 for details on the data and additional results). Table 3 reports regressions of this index on the variables that, according to our theory, should be crucial for determining support for restrictions on working women.

Panel A of Table 3 presents the results for the attitudes of married men in the NLSM. In line with our theory, we find that low-skilled men are much less supportive of working women than high-skilled men. Conversely, men whose wife is working are more supportive of women working in general. When interacting the husband’s skill and the wife’s

Table 3: Attitudes Toward Working Women in the NLSM and NLSW

<b>A. NLSM: Support By Married Men (Ages 50-64) in 1971</b>						
	(1)	(2)	(3)	(4)	(5)	(6)
Low-skilled	-0.24*** (0.05)	-0.25*** (0.05)	-0.35*** (0.06)	-0.33*** (0.06)	-0.34*** (0.06)	-0.33*** (0.06)
Wife works		0.19*** (0.05)	0.00 (0.08)	0.00 (0.08)	0.00 (0.08)	0.01 (0.08)
Low-skilled × Wife works			0.26** (0.10)	0.25** (0.10)	0.25** (0.10)	0.25** (0.10)
Industry & Location Controls				X		X
Family Controls					X	X
<i>N</i>	3,600	3,510	3,510	3,508	3,510	3,508
<b>B. NLSW: Support By Married Women (Ages 31-45) in 1967</b>						
	(1)	(2)	(3)	(4)	(5)	(6)
Low-skilled	-0.13*** (0.03)	-0.13*** (0.03)	-0.18*** (0.04)	-0.17*** (0.04)	-0.18*** (0.04)	-0.17*** (0.04)
Wife works		0.12*** (0.03)	0.04 (0.05)	0.04 (0.05)	0.04 (0.05)	0.04 (0.05)
Low-skilled × Wife works			0.12** (0.06)	0.11* (0.06)	0.12** (0.06)	0.11* (0.06)
Industry & Location Controls				X		X
Family Controls					X	X
<i>N</i>	4,057	4,057	4,057	3,871	4,057	3,871

Notes: Standard errors in parentheses. \*  $p < .10$ , \*\*  $p < .05$ , \*\*\*  $p < .01$ . We use data on husbands' and wives' attitudes toward working women from the NLSM (1971) and the NLSW (1967), respectively. The regressions control for the husband's employment in agriculture and whether the household resides in a rural area. They also control for family size and the number of children in the household. The full results are reported in Appendix Table D.1.

labor supply, we see that the positive effect of the wife's labor supply on attitudes is confined to couples where the husband is low-skilled. In these couples, having a working wife largely offsets the otherwise negative attitudes of low-skilled men toward women's employment, resulting in attitudes that are statistically indistinguishable from those of high-skilled men. Panel B displays analogous results for the attitudes of married women from the NLSW. The results are remarkably similar to those of men: married women with low-skilled husbands are less supportive of working women, yet when a woman married to a low-skilled man is working herself, her attitudes are not significantly different from those of women married to high-skilled men. Appendix Table D.1 further shows that the attitudes of agricultural households are similarly favorable toward working women

as those of couples with high-skilled husbands. These patterns align with the voting behavior predicted by our theoretical model. Specifically, they support our argument that political preferences do not break primarily down along gender lines, but rather are shaped by men's skill and married women's labor force participation.

## 6 The Mechanisms underlying Political Change

Our analysis implies that structural change from agriculture to the modern sector, changing education levels, rising female labor force participation, and the introduction of women's suffrage all affected political support for protective labor laws. To assess the relative importance of these driving forces for the rise and fall of protective legislation, we employ a dynamic version of our model, calibrate it to the US economy, and explore outcomes in counterfactual scenarios that vary these driving forces. Using the model allows us to account for general-equilibrium adjustments. For example, a rise in married women's labor force participation would not just increase the fraction of dual-earner couples, but also trigger a reallocation of labor across sectors. Basing counterfactuals on an equilibrium model means that we can take these adjustments into account.

To match the model to historical data, we embed it in a dynamic environment. Households die at mortality rate  $\rho$ , which is the same across household types. New households are born at type specific time varying rates  $\kappa_{ht}$ . The resulting law of motion for  $N_{ht}$  is given by

$$N_{ht+1} = (1 - \rho + \kappa_{ht})N_{ht}.$$

Throughout we consider an economy with a constant total measure of households, i.e., where aggregate births equal aggregate deaths:

$$\sum_{h \in \mathcal{H}} \rho N_{ht} = \sum_{h \in \mathcal{H}} \kappa_{ht} N_{ht}. \quad (5)$$

Even though households live over multiple periods, they do not have dynamic state variables, and hence the decision problem within each period is unchanged. Likewise, a new vote on protective labor legislation takes place every period, so that the voting problem also remains static, and our theoretical results continue to apply.

### 6.1 Matching the Model to Historical Evidence

We choose model parameters and exogenous driving forces such that the model closely matches historical evidence for the United States. For the measure of each household

type,  $N_{ht}$ , we ensure an exact fit to the empirical distribution of household types in census data for each decade. Specifically, we fix the death rate  $\rho$  and choose the type specific birth rates,  $\kappa_{ht}$ , as necessary to exactly replicate the empirical distribution of household types. To ensure that aggregate births equal aggregate deaths in each time period (i.e., to ensure (5) is satisfied), we set  $\rho$  equal to the maximal change in any household type that we observe across time periods.

Given the distribution of household types, the production function parameters together with the relative productivity of the modern technology pin down the distribution of workers across sectors and the wage structure in each period. We choose parameters to match relative wages by skill and gender in 1910, the first year for which the relevant data is available. The productivity of the modern sector is set to match the distribution of workers between agriculture and modern sectors in each period. See Appendix C.2 for details.

We set the elasticity of substitution between the agricultural and modern sector good,  $\epsilon$ , to 6.0. This fairly high elasticity ensures that wage and income effects are quantitatively larger than those stemming from the relative price of the modern-sector good. Given that trade across US regions likely mitigated the impact of price differences, this case is the most relevant for our quantitative exploration of the US economy. Further details on the calibration procedure and the calibrated parameter values are provided in Appendix C.2.

The calibrated model provides a close fit for the targeted empirical moments, including the changing distribution of household types over time (see Appendix Figures C.1 and C.2). As a result, the model also matches the rise and fall in predicted support for protective labor laws (see Figure 4a). Specifically, the model predicts that protective legislation is first introduced in 1910, coinciding with the steepest rise in our law index (see Figure 1). The removal of protective laws is predicted to occur in 1960, in line with the actual abolishment of protective legislation in the 1960s. The main proximate cause of the introduction of legislation is an increase in the share of married unskilled men in the modern sector who are the sole earner, while a later increase in married women's labor force participation is the most important proximate cause of the removal of protective labor laws (see Appendix Figures C.3a and C.3b). However, the sizes of these different groups partly reflect endogenous household decisions about location and sector of work. We therefore turn to counterfactual simulations to assess the deeper forces that shaped the introduction and end of protective labor laws.

## 6.2 Outcomes under Counterfactual Scenarios

Starting from the baseline model, we run counterfactual simulations to assess the importance of (I) women’s suffrage, (II) the increase in the share of skilled men, (III) the increase in female labor force participation, and (IV) structural change for the rise and fall of protective legislation. Below, we describe the implementation of each counterfactual scenario and show in Figure 4 how voting shares for and against protective legislation evolve under scenarios I-IV.

**I. Women’s Voting Rights** To explore the importance of female suffrage, we simulate two counterfactuals. First, we consider a world where women have always had the right to vote. Figure 4b displays simulated vote shares for and against protective labor laws under this scenario. The vote share in favor of protective legislation grows more slowly compared to the baseline and doesn’t surpass 50 percent until 1930. Protective labor laws are then supported by a narrow majority up to 1960. Thus, with women always having the right to vote, the majority in favor of protective legislation materializes later and persists for a shorter period of time. In contrast, if women never gain the right to vote, majority support for protective laws persists from 1910 up to 1960, just as in the baseline scenario (see Figure 4c). However, the predicted vote share in favor of protective legislation would be larger compared to the baseline.

Women’s suffrage has only minor effects on votes for protective laws in the model, because disagreement over this issue arises primarily across household types rather than between genders. The gender gap in votes for protective legislation is remarkably stable, with only about five percent more men favoring restrictions than women (see Appendix Figure C.4). In particular, non-working women in the modern sector agree with their husbands on the benefits of protective legislation, since their husbands’ wages rise when protective legislation is introduced.

**II. Skill Growth** Next, we quantify the extent to which the evolution of men’s skill composition influenced the introduction and end of protective legislation. To do so, we simulate a counterfactual scenario where the share of high-skilled men remains fixed at its 1870 level.<sup>38</sup> Figure 4d displays predicted vote shares under this scenario. Protective

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<sup>38</sup>To implement this counterfactual, we compute growth rates of the skilled and unskilled male populations. We then re-weight households that comprise skilled or unskilled men by the inverse of the respective growth rate, thereby stabilizing the share of skilled men in the male population at its 1870 level (see Appendix Figure C.5a).

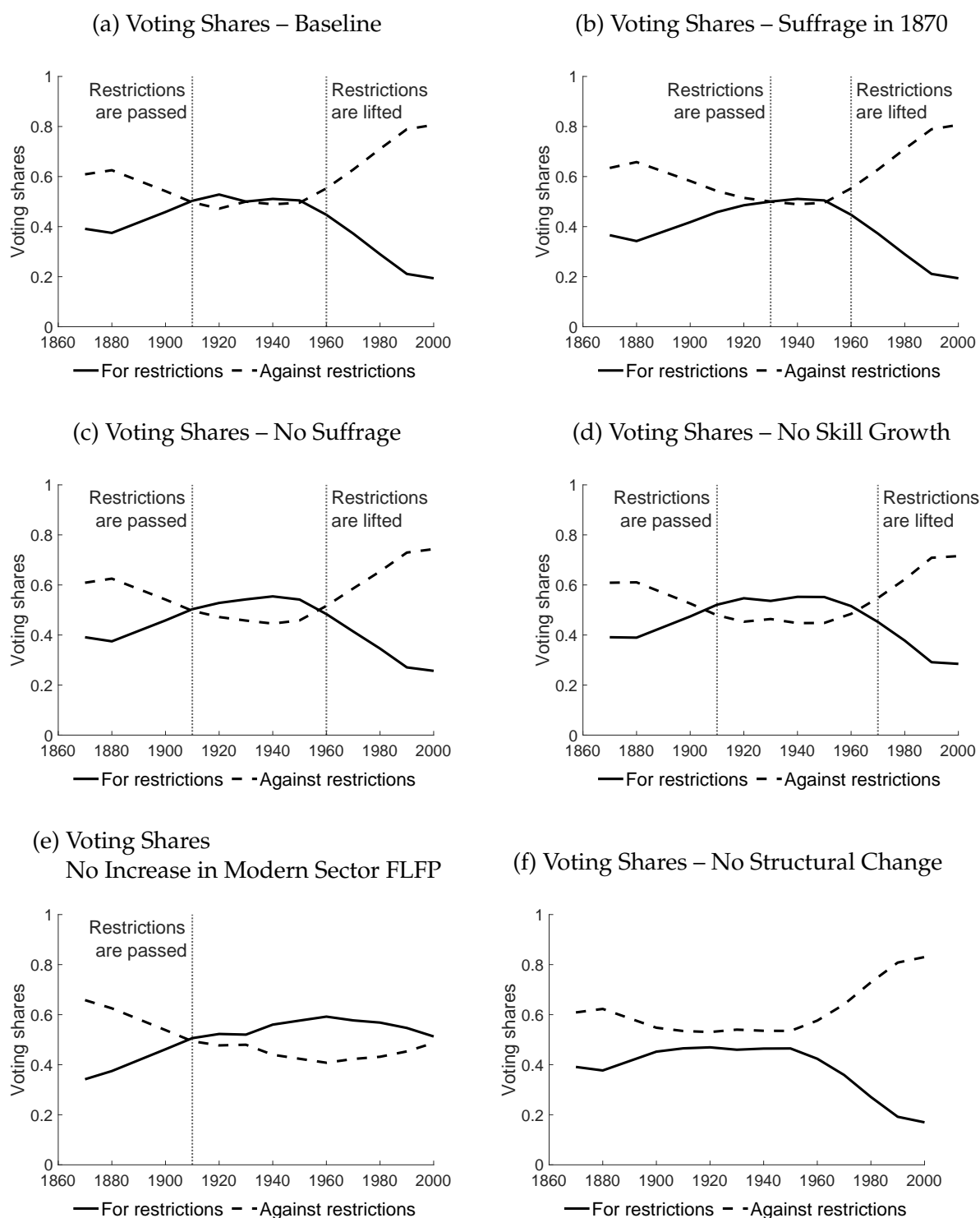


Figure 4: Voting Shares: Baseline and Counterfactuals I-IV.

*Notes:* The figure displays voting shares as predicted by our calibrated model in the baseline (Panel a) and under the following counterfactual scenarios: (Ia) women gaining suffrage in 1870 (Panel b), (Ib) women never gaining suffrage (Panel c), (II) the share of skilled men remaining constant since 1870 (Panel d), (III) female labor force participation remaining constant since 1880 (Panel e), and (IV) no structural change since 1870 (Panel f).



legislation gains majority support in 1910, just as in the baseline scenario. This majority persists until 1970, a decade longer than in the baseline. Thus, the increase in skill among men contributed to the end of protective legislation, but quantitatively the impact is small.

**III. Female Labor Force Participation** Next, we explore the relevance of rising female labor force participation for the protective labor laws. We simulate a counterfactual scenario in which female labor force participation in the modern sector is kept constant at the 1880 level.<sup>39</sup> Figure 4e shows simulated vote shares in this scenario. The vote share in favor of protective legislation reaches a majority in 1910, as in the baseline scenario. However, once a majority in favor of protective legislation has materialized, it persists, meaning that protective legislation would have remained in place throughout the entire period considered. The counterfactual therefore suggests that rising female labor force participation was a necessary condition for the end of protective legislation.

**IV. Structural Change** Finally, we examine how structural change influenced the timing of protective labor legislation. Specifically, we fix total factor productivity in the modern sector,  $A_t$ , at its 1870 level. Figure 4f presents predicted vote shares under this scenario (for population shares see Appendix Figure C.6). The vote share in favor of protective legislation grows slightly in the first half of the twentieth century but never reaches a majority. Hence, without structural change, protective labor laws would never have been introduced.<sup>40</sup>

A summary of the timing of the introduction and end of protective legislation in each counterfactual scenario is provided in Figure 5. We conclude that structural change from agriculture to the modern sector—which increased competition between women and men in the labor market—was the main underlying force behind the introduction of protective labor laws. Conversely, rising female labor force participation—which aligned

<sup>39</sup>We implement this scenario by scaling up  $N_{U\bar{\psi}}$  and  $N_{S\bar{\psi}}$ , the two household types with non-working women in the modern sector. Simultaneously, we reduce the corresponding household types with working women,  $N_{U\psi}$  and  $N_{S\psi}$ , such that the overall numbers of couples with skilled and unskilled husbands remain constant. Specifically, in each time period, we scale  $N_{U\bar{\psi}}$  and  $N_{S\bar{\psi}}$  by the same factor  $\lambda_t$  and increase or reduce  $N_{U\psi}$  and  $N_{S\psi}$  by  $(\lambda_t - 1)N_{U\bar{\psi}}$  and  $(\lambda_t - 1)N_{S\bar{\psi}}$ , respectively. For each time period, we choose  $\lambda_t$  such that the share of working women in the modern sector matches its level in 1880. See Appendix Figure C.5b.

<sup>40</sup>Figure 4f Panels (b)–(d) show that absent structural change, the population shares of working women and skilled men in the modern sector would still have grown, but at a slower pace. These changes are driven by the evolution over time of variables other than  $A_t$ , such as the gender productivity gap,  $\phi_t$  and the exogenous population shares  $N_{ht}$  (which affect female labor force participation and the male skill ratio).

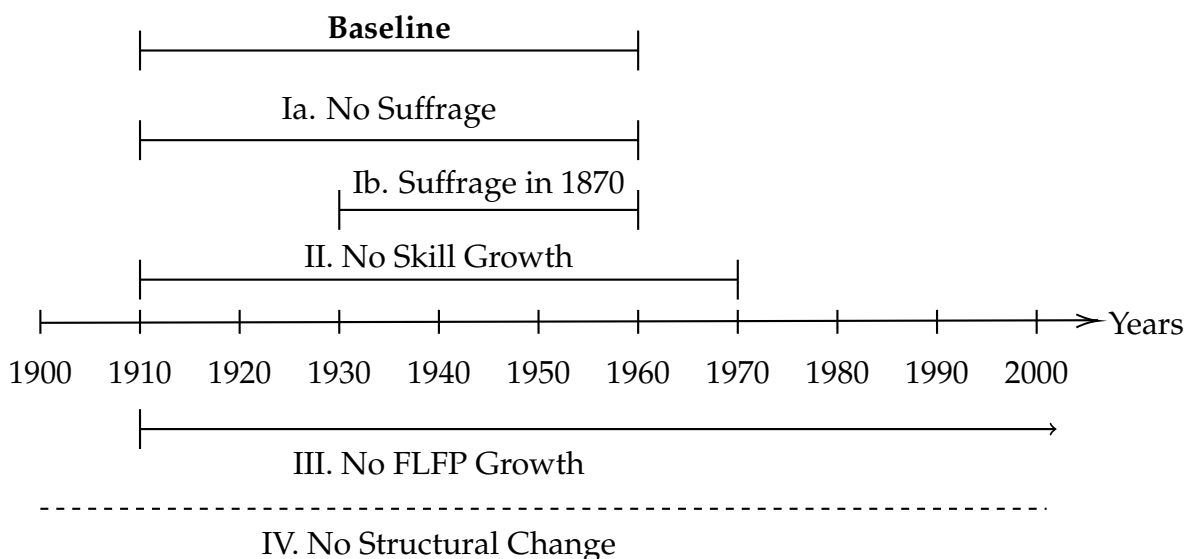


Figure 5: Protective Legislation in Counterfactual Scenarios

Notes: In counterfactual Scenario III, protective legislation would not have ended within the twentieth century. In Scenario IV, protective legislation would never have been introduced.

the economic interests of working women and men (who now were often married to each other)—was crucial for the end of these laws.

## 7 Additional Channels

Additional forces beyond the labor market competition channel may have contributed to the introduction of protective labor laws. In this section, we explore the empirical relevance of three such forces. First, trade unions may have supported protective legislation for women as a first step toward enacting similar protections for men. Second, there may have been a sincere desire to protect women as mothers; an oft-raised argument in debate over such legislation was that children need their mothers at home. Third, if women themselves desired protection, then women’s suffrage should have made the passing of such laws more likely. While these forces are plausible contributors to the introduction of protective laws, it is hard to conceive a role for them in the end of protective legislation. In our empirical analysis we now examine these hypotheses by including additional state-level variables in our cross-state regression analysis of the introduction of protective legislation (see Table 1). We focus on the “Any Law” index that captures when the first protective labor law was passed in each state. Table 4 shows results for the most demanding specification, which controls for both time and state fixed effects.

## 7.1 Organized Labor

Unions played a prominent role in the debate over protective labor laws. Union support is consistent with our labor market competition channel, as we argue that support stems mainly from unskilled men (and their families), who were often represented by unions. Nonetheless, it is interesting to ask whether legislation was passed because of gradual shifts in the composition of the voting population (as we argue) or more specifically in response to pressure from organized labor. To assess this possibility, we consider several state-level proxies for the strength of organized labor: the frequency of strikes, the number of delegates representing each state at conventions of the American Federation of Labor (AFL), and the number of votes a state held at AFL conventions. For strikes, we digitize data on the number of strikes for each census year in each state and compute the number of strikes per decade, normalized by the state's population. AFL delegates and votes at AFL conventions serve as proxies of state-level unionization rates. We assemble these measures using data from the *Report of the Proceedings of the Annual Meeting of the American Federation of Labor*.<sup>41</sup> The AFL represented the majority of trade union members in the United States until the mid-1930s, making it a reliable proxy for union activity.<sup>42</sup> We normalize both the number of delegates and the number of votes with the state population in the respective year.

Columns (1) to (3) in Table 4 show that none of our measures of union strength is associated with protective labor legislation. In particular, we find no evidence that poor working conditions, as proxied by labor strikes, are predictive of protective legislation for women.<sup>43</sup> Further, the regression results show that controlling for measures of organized labor does not change the statistical or economic significance of the coefficient on our predicted support variable. Thus, the labor market competition channel is robust to controlling for measures of the strength of organized labor.

As our measures of union strength are imperfect, it is still possible that organized labor could have played some role. Indeed, unions largely focused on the concerns of working

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<sup>41</sup>To construct these time series, we use the AFL proceedings which include a list of delegates and the state they represent. Appendix Figure E.3 contains an example of the list of delegates to the 30th Annual AFL Convention in 1910. We digitize the list of delegates and the number of votes they held at the convention for each decade between 1880 and 1930. We aggregate the number of delegates and votes at the state level. Appendix Figure E.4 shows the resulting time series for the number of AFL votes by state.

<sup>42</sup>Appendix Figure E.5 displays total union membership in the United States from 1897 to 1945. It shows that AFL membership accounted for the majority of union members until 1935, by which time most protective legislation had been passed.

<sup>43</sup>For a more visual representation, see Appendix Figure E.1, which depicts the time series of strikes in the entire country over time. We see no clear trend in the number of strikes during the first half of the twentieth century. The peak in labor strikes didn't occur until after most protective labor laws had already been enacted. To examine the regional distribution of strikes, see Appendix Figure E.2.

Table 4: Alternative Hypotheses

	Dependent Variable: Any Law						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Predicted Support For Laws	1.11*** (0.29)	1.54*** (0.43)	1.53*** (0.42)	0.75** (0.30)	0.87*** (0.26)	1.08*** (0.26)	0.87*** (0.25)
<b>I. Organized Labor</b>							
Strikes	-0.01 (0.02)						
AFL Delegates per capita		0.01 (0.05)					
AFL Votes per capita			-0.01 (0.04)				
<b>II. Concerns for Children</b>							
% Children < 10				-0.38** (0.15)			
Mandatory Schooling Laws					0.14 (0.09)		
<b>III. Political Power of Women and High-Skilled Men</b>							
Suffrage						0.03 (0.05)	
High-Skill Men with Non-Working Wives							-0.80 (0.80)
State FE	X	X	X	X	X	X	X
Time FE	X	X	X	X	X	X	X

*Notes:* Standard errors in parentheses. \*  $p < .10$ , \*\*  $p < .05$ , \*\*\*  $p < .01$ . The regressions use population weights. The dependent variable is the “Any Law” index described in Section 5.2. The independent variables are defined as follows. Predicted support for laws: as described in Section 5.2. *Strikes*: State-level number of strikes divided by 100. *AFL Delegates Per Capita*: Number of AFL delegates from a state divided by state population (in 100,000s). *AFL Votes Per Capita*: Number of AFL votes by a state (in 100s) divided by state population (in 100,000s). Columns (1)-(3) use data from 1880–1930, the time range of our union data. Columns (4)-(6) use data from 1870–1950. Appendix Table A.2 displays our data on mandatory schooling laws and state-level suffrage.

men at the time, and thus may have supported protection precisely due to male worries about labor competition from women.<sup>44</sup> For example, when unions supported equal pay for equal work during the late nineteenth century, their primary concern was that

<sup>44</sup>In 1900, only 3.3 percent of women who engaged in industrial jobs belonged to a trade union. By 1920, they made up 8.8 percent of unionized workers, despite accounting for 20 percent of the workforce (Kessler-Harris 2018). In fact, unions were generally hostile toward women and did not try to organize them (Huber 1976).

employers would use cheap female labor to replace male workers and ultimately drive down wages for all workers (Sumner 1910). We do not, however, find evidence that union power matters separately from overall shifts in the population share of male workers competing with women for jobs.

## 7.2 Concerns for Children

In the political debate over protective labor laws, a need for special protections for working women was often justified by emphasizing women's role as mothers (Hill 1979). We accordingly examine the hypothesis that concern for the care of children may have been a motive for protective legislation. Specifically, we use US Census data to calculate the ratio of children aged 0 to 9 to women of childbearing age (18 to 40) in each state and decade. If women were needed at home to raise children, one might expect states with more children to be more likely to pass protective legislation. However, in our regression we find the opposite (see column (4)): the coefficient on the number of small children is negative. One could argue that the negative coefficient reflects that concern about children grew fast precisely in the states where fertility rates fell the most in the course of the demographic transition. That is, fast demographic change may have created a sense that fertility had become too low, and restricting women's participation in the labor market may have gained support to counteract this trend. While this explanation is consistent with the empirical patterns, we are not aware of any evidence that concerns about low fertility featured in the debate about protective labor laws. More importantly, the coefficient on predicted support remains positive and highly significant, indicating that such a mechanism does not weaken the evidence for the labor market competition channel that is the focus of our analysis.

An arguably better proxy for concern for children is the presence of mandatory schooling laws. These laws were introduced in many states during the same historical period and plausibly reflect a regard for the well-being and education of children. However, in column (5) we find no association between the introduction of mandatory schooling laws (for the data see Appendix Table A.2) and the introduction of protective labor legislation. Once again, the coefficient on the predicted support for protective legislation remains significant and sizable.

## 7.3 Political Power of Women and High-skilled Men

If protective labor laws truly benefited working women, women should be more likely than men to support such laws. We therefore analyze the role of women's suffrage

in the passing of protective legislation. While women’s suffrage at the federal level was only introduced in 1920, 14 states granted women full suffrage in state and local elections between 1887 and 1918.<sup>45</sup> Using data from [Keyssar \(2000\)](#), we construct an index indicating whether women had the right to vote in a given state and decade (see Appendix Table [A.2](#)). Column (6) of Table [4](#) shows a small and statistically insignificant coefficient on women’s suffrage. Thus, consistent with our model-based counterfactual above, we find no empirical support for the hypothesis that women’s suffrage drove the introduction of protective legislation. This suggests that support for protective legislation was not primarily divided along gender lines. When controlling for women’s suffrage, we still find a highly significant relationship between protective laws and predicted support for protective legislation.

Given that most opinion leaders and policymakers during this period were high-skilled men, their preferences may have played a greater role in shaping legislation than their share of the electorate would suggest. One might hypothesize that it was these high-skilled men with mostly non-working wives that were in favor of protecting other women in the workforce and hence instrumental in the rise of protective labor laws. To test this hypothesis, we include the share of high-skilled men married to non-working wives as a proportion of all married high-skilled men as an additional regressor. Column (7) of Table [4](#) shows that this share is not significantly associated with the introduction of protective labor laws. The negative point estimate suggests that, if anything, this group opposed legislation, as implied by our model.

## 7.4 Partisanship

Finally, we investigate whether protective legislation for women workers was championed by a particular political party. While state legislative records do not provide detailed discussions or individual voting records from the period of interest, federal records offer some insight. Indeed, although protective labor laws were never passed at the federal level, members of Congress did propose such legislation at various times. Resolutions for protective legislation were introduced for discussion in the House of Representatives, the Senate, or as joint resolutions to both chambers. Ultimately, all of these resolutions were deferred to subcommittees for further deliberation and never returned to the House or Senate for an official vote. Nevertheless, federal congressional records allow us to identify the state and political party affiliation of the members who submitted these resolutions. As summarized in Appendix Table [E.1](#), both Republican and Democratic party members

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<sup>45</sup>We use this information when constructing our measures of support for protective laws, where non-working wives of low-skilled men are included if they have the right to vote in the state at the time.

submitted resolutions proposing protective legislation, indicating that neither protective legislation in general nor specific types of such legislation can be attributed exclusively to one political party.

## **7.5 Summary**

Overall, in terms of accounting for state-level variation in the introduction of protective labor legislation, we do not find strong support for alternative channels, and including proxies for such channels does not lower the empirical support for the labor market competition channel. Of course, these results do not imply that no other channels were at work. To the contrary, the historical literature clearly shows the relevance of additional considerations, such as genuine concern about the welfare of working women and attempts to use legislation specifically for women as an entry point for broader labor market regulations. It is possible that our proxy variables suffer from measurement error that makes it difficult to capture such channels. An alternative interpretation is that the impact of other channels is more uniform across time and space, making it harder to identify them empirically. In contrast, the labor market competition channel varies strongly due to the large observed differences in the composition of the electorate across time and space. This suggests that the labor market competition channel may account for much of the observed variation in protective labor laws across time and states, even if it is complemented by other mechanisms. The evidence presented here, while not definitive, is consistent with such an explanation.

## **8 Conclusion**

For most of the past 200 years, the campaign for women's rights and gender equality has been a success story. Women's rights have gradually expanded in many countries around the world, and there are now many places where the vision of equality before the law is close to being a reality (even when gender gaps in outcomes persist). What is less clear is whether this progress is best understood as a process of enlightenment, with a gradual shift in people's perceptions of who is entitled to rights and what the true meaning of equality is, or as a change in political incentives driven by technological and economic transformations.

The rise and fall of protective labor legislation provides an interesting test case for these alternative interpretations, particularly as it can be viewed as temporary reversal for women's rights by codifying gender inequality in the labor market. While change comes in different forms and cannot be traced to a single cause, we argue that shifting political



incentives go a long way in explaining not only why these restrictions were imposed but also the timing of their introduction and overturn. A genuine concern for women's working conditions undoubtedly played a role. On a broad level, however, these legal changes closely align with the incentives of male workers and their non-working wives to restrict competition from working women in the labor market. The introduction of protective labor laws notably coincides with the rise of the manufacturing and service sectors, where women and men were more likely to perform similar tasks and thus be in direct competition, compared to the previously dominant agricultural economy. At the height of protective labor legislation, unskilled single men and couples composed of an unskilled man and a nonworking wife constituted the majority of the working-age population. Once married women's labor force participation rose to a level where most couples benefited from unrestricted labor market opportunities for women, protective labor laws disappeared.

Our results are informative for prospects for change in countries where wide gender inequalities remain, both in law and in outcomes. The analysis suggests that education and political campaigns alone may not be enough to change the status quo. Rather, political incentives driven by economic conditions are an essential factor in generating broad support for expanding women's rights.

Regarding gender relations in high-income countries such as the United States today, our findings suggest that gender equality was advanced by the large rise in married women's labor force participation in the second half of the twentieth century. Given that most women and men married at the time, this shift aligned the economic interests of working women and men and broadened support for equality in the workplace. A potentially worrying observation is that this alignment may now be under threat: while women's labor force participation remains high, there has been an accelerating retreat from marriage in recent decades, particularly so among less educated and lower-earning men. Survey data also shows that the political attitudes of young women and men have diverged, with a widening gender gap in the support of gender equality compared to earlier cohorts. Our analysis suggests that these trends may be related. The potential interactions between declining marriage and support for gender equality in modern economies is a promising topic for future research.

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# Online Appendix – Not for Publication

## A Protective Labor Legislation by State

Table A.1: Protective Legislation Enacted by US States

	Maximum Hours <sup>a</sup>		Minimum Wages <sup>c</sup>		Night Laws <sup>a</sup>		Seating Laws <sup>a</sup>	Weight Laws <sup>a</sup>	
	First	Unrepealed	First	Unrepealed	First	Unrepealed	First	First	Unrepealed
Alabama	1887 <sup>b</sup>						1889		
Arizona	1913	1913	1917	1917			1912		
Arkansas	1915	1915	1915	1915			1913		
California	1911	1911	1913	1913	1918	1918	1889	1916	1916
Colorado	1903	1903	1913	1913			1885		
Connecticut	1887	1887	1933	1933	1909	1909	1893		
Delaware	1913	1913					1887		
District of Columbia	1914	1914	1918	1918			1895		
Georgia							1889	1958 <sup>g</sup>	
Florida							<sup>d</sup>		
Idaho	1913	1913	1955	1955			1913		
Illinois	1893	1909 <sup>b</sup>	1933	1933			1901		
Indiana					1899	1899	1891		
Iowa							1892		
Kansas	1917	1917	1915	1915	1917	1917	1901		
Kentucky	1912	1912	1938	1938			1912		
Louisiana	1886	1886	1938	1938			1886		
Maine	1887	1887	1939	1939			1911		
Maryland	1912	1912			1912	1912	1896	1952 <sup>e</sup>	
Massachusetts	1874	1874	1912	1912	1891	1891		1912	1912
Michigan	1907	1907					1887	1919	1919
Minnesota	1858	1909 <sup>b</sup>	1913	1913				1919	1919
Mississippi	1914	1914							
Missouri	1909	1909			1909		1885		
Montana	1913	1913					1913		
Nebraska	1899	1899	1913 <sup>b</sup>		1899	1899	1883		
Nevada	1917	1917	1937	1937			1917		
New Hampshire	1887	1887	1933	1933	1914	1914	1885		
New Jersey	1892	1892	1933	1933	1923	1923	1882		
New Mexico	1921	1921	1955	1955	1921	1921			
New York	1899	1899	1933	1933	1899	1913	1881	1915	1915
North Carolina	1931 <sup>b</sup>	1931 <sup>b</sup>					1909		
North Dakota	1889	1889	1919	1919	1920	1920	1920		
Ohio	1852	1911 <sup>b</sup>	1933	1933	1919	1919	1895	1917	1917
Oklahoma	1890	1915	1937	1937			1908		
Oregon	1903	1903	1913	1913	1914	1914	1903	1942 <sup>f</sup>	1942 <sup>f</sup>
Pennsylvania	1897	1897	1937	1937	1913	1913	1887	1915	1915
Rhode Island	1885	1885	1936	1936			1894		
South Carolina	1911	1911			1911	1911	1899		
South Dakota	1889	1889	1923	1923			1913		
Tennessee	1908	1908					1905		
Texas	1913	1913	1919 <sup>b</sup>				1913		
Utah	1911	1911	1913	1913			1897	1937 <sup>f</sup>	1937 <sup>f</sup>
Vermont	1912	1912	1957	1957			1915		
Virginia	1890	1890					1898		
Washington	1901	1901	1913	1913	1920	1920	1890	1922	1922
West Virginia							1901		
Wisconsin	1867	1867	1913	1913	1911	1911	1899		
Wyoming	1915	1915	1955	1955			1901		

Data Sources: <sup>a</sup> Women's Bureau (1929). Bulletin No. 66; <sup>b</sup> Brandeis (1935); <sup>c</sup> Women's Bureau (1958). Bulletin No. 267-I;

<sup>d</sup> Florida's law includes both male and female employees (Women's Bureau, Bulletin 66, p. 10). Hence we do not consider it as protective legislation for women only; <sup>e</sup> Women's Bureau (1954). Bulletin No. 255; <sup>f</sup> Women's Bureau (1944). Bulletin No. 202-3;

<sup>g</sup> Women's Bureau (1960). Bulletin No. 275.



Table A.2: Other State Laws Affecting Women and Children

	State ERAs <sup>a</sup>	Ratification of National ERA <sup>b</sup>	Women's Suffrage <sup>g</sup>	Mandatory Schooling Laws <sup>h</sup>
Alabama			1920	1915
Arizona			1912	1899
Arkansas			1911	1909
California	1879	1972	1920	1874
Colorado	1973	1972	1893	1889
Connecticut	1974	1973	1920	1872
Delaware	2019 <sup>c</sup>	1972	1920	1907
District of Columbia			1920	1864
Georgia			1920	1916
Florida	1998		1920	1915
Idaho		1972	1920	1887
Illinois	1971 <sup>d</sup>	2018 <sup>f</sup>	1920	1883
Indiana	2018 <sup>c</sup>	1977	1920	1897
Iowa	1998	1972	1920	1902
Kansas		1972	1912	1874
Kentucky		1972	1920	1896
Louisiana	1975		1920	1910
Maine		1974	1920	1875
Maryland	1972	1972	1920	1902
Massachusetts	1976	1972	1920	1852
Michigan		1972	1918	1871
Minnesota	1973	1973	1920	1885
Mississippi			1920	1918
Missouri			1920	1905
Montana		1974	1887	1883
Nebraska	2008 <sup>c</sup>	1972	1920	1887
Nevada		2017 <sup>f</sup>	1914	1873
New Hampshire	1974	1972	1920	1871
New Jersey	1947	1972	1920	1875
New Mexico	1973	1973	1920	1891
New York		1972	1917	1874
North Carolina			1920	1907
North Dakota		1975	1920	1883
Ohio		1974	1920	1877
Oklahoma			1918	1907
Oregon	2014 <sup>c</sup>	1973	1912	1889
Pennsylvania	1971	1972	1920	1895
Rhode Island	1986 <sup>c, e</sup>	1972	1920	1883
South Carolina			1920	1915
South Dakota		1973	1918	1883
Tennessee		1972	1920	1905
Texas	1972	1972	1920	1915
Utah	1896		1896	1890
Vermont		1973	1920	1867
Virginia	1971	2020 <sup>f</sup>	1920	1908
Washington	1972	1973	1910	1871
West Virginia		1972	1920	1897
Wisconsin		1972	1920	1879
Wyoming	1890	1973	1890	1876

Data Sources: <sup>a</sup> Gladstone (2004); <sup>b</sup> Crowley (2006) ; <sup>c</sup> Wheaton (2022); <sup>d</sup> Illinois (Louisiana) approved a new constitution in 1970 (1974), which took effect in the subsequent year 1971 (1975). We use the year of the adoption; <sup>e</sup> Rhode Island had a referendum in 1986 to adopt a new constitution, which had an ERA due to a ballot question that year and took effect upon approval; <sup>f</sup> National Archives: Records Related to the Equal Rights Amendment, updated as of 03/24/2020 (accessed on 2025-03-14); <sup>g</sup> Keyssar (2000). Table A.20, p. 368; <sup>h</sup> Hood, W. R. (1919). Review of Educational Legislation 1917 and 1918. Department of the Interior Bulletin No. 13, pp. 26–27.

## B Proofs for Propositions

**Proof of Proposition 1:** Given total labor supply in the modern sector  $X_{Fm}, X_{Um}, X_{Sm}$ , if  $\theta_f$  and  $\theta_u$  are sufficiently small such that the conditions:

$$\theta_f \leq \frac{\xi\phi X_{Fm}}{\xi\phi X_{Fm} + X_{Um}}, \quad (6)$$

$$\theta_u \leq \frac{X_{Um}}{\xi\phi X_{Fm} + X_{Um}} \quad (7)$$

are both satisfied, we conjecture that the equilibrium inputs in each modern sub-sector are given by:

$$\begin{aligned} X_{Sf} &= \theta_f X_{Sm}, \\ X_{Ff} &= \frac{\theta_f}{\xi\phi} (\xi\phi X_{Fm} + X_{Um}), \\ X_{Su} &= \theta_u X_{Sm}, \\ X_{Uu} &= \theta_u (\xi\phi X_{Fm} + X_{Um}), \\ X_{Sb} &= (1 - \theta_f - \theta_u) X_{Sm}, \\ X_{Fb} &= X_{Fm} - \frac{\theta_f}{\xi\phi} (\xi\phi X_{Fm} + X_{Um}), \\ X_{Ub} &= X_{Um} - \theta_u (\xi\phi X_{Fm} + X_{Um}). \end{aligned}$$

In other words, inputs are split according to the relative weight of each sub-sector in overall modern production. Conditions (6) and (7) ensure that this can be done with all inputs being non-negative.

To verify that the conjectured inputs are consistent with equilibrium, we need to show that (i) wages are equalized across sectors; and (ii) the three sub-sectors aggregate as described in Proposition 1. We begin by showing that wages equalize across sectors. Since the three sub-sectors use the same technology and the same input ratio of skilled versus unskilled labor (given our conjectured inputs), the marginal product of each input is equalized across sub-sectors. To verify that this leads to wage equalization, we also have to ensure that the output prices across the sub-sectors are the same. The output of the three modern sub-sectors is combined by a competitive industry. Therefore, given production function (4), the output prices of the three sub-sectors are determined by their

marginal products, multiplied by the price of the composite modern good  $p_m$ :

$$\begin{aligned} p_b &= p_m (1 - \theta_f - \theta_u)^{\frac{1}{\eta}} Y_b^{-\frac{1}{\eta}} \left( (1 - \theta_f - \theta_u)^{\frac{1}{\eta}} Y_b^{\frac{\eta-1}{\eta}} + \theta_f^{\frac{1}{\eta}} Y_f^{\frac{\eta-1}{\eta}} + \theta_u^{\frac{1}{\eta}} Y_u^{\frac{\eta-1}{\eta}} \right)^{\frac{1}{\eta-1}}, \\ p_f &= p_m \theta_f^{\frac{1}{\eta}} Y_f^{-\frac{1}{\eta}} \left( (1 - \theta_f - \theta_u)^{\frac{1}{\eta}} Y_b^{\frac{\eta-1}{\eta}} + \theta_f^{\frac{1}{\eta}} Y_f^{\frac{\eta-1}{\eta}} + \theta_u^{\frac{1}{\eta}} Y_u^{\frac{\eta-1}{\eta}} \right)^{\frac{1}{\eta-1}}, \\ p_u &= p_m \theta_u^{\frac{1}{\eta}} Y_u^{-\frac{1}{\eta}} \left( (1 - \theta_f - \theta_u)^{\frac{1}{\eta}} Y_b^{\frac{\eta-1}{\eta}} + \theta_f^{\frac{1}{\eta}} Y_f^{\frac{\eta-1}{\eta}} + \theta_u^{\frac{1}{\eta}} Y_u^{\frac{\eta-1}{\eta}} \right)^{\frac{1}{\eta-1}}. \end{aligned}$$

By solving the first condition for  $p_m$  and substituting into the other two conditions, we observe that prices are equalized ( $p_b = p_f = p_u$ ) if the following two conditions hold:

$$\begin{aligned} Y_f &= \frac{\theta_f}{1 - \theta_f - \theta_u} Y_b, \\ Y_u &= \frac{\theta_u}{1 - \theta_f - \theta_u} Y_b. \end{aligned}$$

These conditions are satisfied given that we have a constant-returns production technology and factors are divided across sectors in the given proportions. Lastly, we verify that the three sub-sectors aggregate as described in Proposition 1 by plugging these expressions back into production function (4). We obtain:

$$\begin{aligned} Y_m &= \left( (1 - \theta_f - \theta_u)^{\frac{1}{\eta}} Y_b^{\frac{\eta-1}{\eta}} + \theta_f^{\frac{1}{\eta}} \left( \frac{\theta_f}{1 - \theta_f - \theta_u} \right)^{\frac{\eta-1}{\eta}} Y_b^{\frac{\eta-1}{\eta}} + \theta_u^{\frac{1}{\eta}} \left( \frac{\theta_u}{1 - \theta_f - \theta_u} \right)^{\frac{\eta-1}{\eta}} Y_b^{\frac{\eta-1}{\eta}} \right)^{\frac{\eta}{\eta-1}} \\ &= \left( (1 - \theta_f - \theta_u)^{\frac{1}{\eta}} + \theta_f^{\frac{1}{\eta}} \left( \frac{\theta_f}{1 - \theta_f - \theta_u} \right)^{\frac{\eta-1}{\eta}} + \theta_u^{\frac{1}{\eta}} \left( \frac{\theta_u}{1 - \theta_f - \theta_u} \right)^{\frac{\eta-1}{\eta}} \right)^{\frac{\eta}{\eta-1}} Y_b \\ &= \left( \frac{1 - \theta_f - \theta_u}{(1 - \theta_f - \theta_u)^{\frac{\eta-1}{\eta}}} + \frac{\theta_f}{(1 - \theta_f - \theta_u)^{\frac{\eta-1}{\eta}}} + \frac{\theta_u}{(1 - \theta_f - \theta_u)^{\frac{\eta-1}{\eta}}} \right)^{\frac{\eta}{\eta-1}} Y_b \\ &= \frac{1}{1 - \theta_f - \theta_u} Y_b. \end{aligned}$$

Hence, total modern-sector output is a multiple of output in the  $Y_b$  sub-sector. Using the production function for  $Y_b$  and the conjectured inputs, we can show that:

$$\begin{aligned} Y_m &= \frac{1}{1 - \theta_f - \theta_u} A X_{Sb}^{1-\delta} (\xi \phi X_{Fb} + X_{Ub})^\delta \\ &= \frac{1}{1 - \theta_f - \theta_u} A ((1 - \theta_f - \theta_u) X_{Sm})^{1-\delta} \end{aligned}$$

$$\begin{aligned}
& \left( \xi\phi \left( X_{Fm} - \frac{\theta_f}{\xi\phi} (\xi\phi X_{Fm} + X_{Um}) \right) + (X_{Um} - \theta_u (\xi\phi X_{Fm} + X_{Um})) \right)^\delta \\
&= \frac{1}{1 - \theta_f - \theta_u} A ((1 - \theta_f - \theta_u) X_{Sm})^{1-\delta} ((1 - \theta_f - \theta_u) (\xi\phi X_{Fm} + X_{Um}))^\delta \\
&= A X_{Sm}^{1-\delta} (\xi\phi X_{Fm} + X_{Um})^\delta,
\end{aligned}$$

which is the aggregate production function stated in the proposition.

If instead Condition (6) is violated, the demand for the  $Y_f$  sub-sector becomes so high that it is not possible to equate the returns to unskilled labor across sectors, due to an insufficient supply of female workers. In this case, all modern-sector women will work in the  $Y_f$  sector, and they will earn a higher wage per efficiency unit than unskilled men in the  $Y_u$  and  $Y_b$  sectors. The reverse situation applies when Condition (7) is violated, with unskilled men working only in the  $Y_u$  sector, where they earn a wage premium. Given that we do not observe such full specialization in the data, we regard the case where Conditions (6) and (7) hold as the empirically relevant case that forms the basis for the further analysis.  $\square$

**Proof of Proposition 2:** We first note that the vote only applies within the period, and there are no dynamic state variables affected by the vote. Hence, support for protective legislation solely depends on outcomes in the same period. Second, the vote takes place after location and labor supply decisions have been made. Hence, support for the law depends entirely on its impact on an individual's or couple's consumption  $C$ . Consumption, in turn, is affected by changes in income  $I$  and the relative price of modern-sector goods  $p_m$ .

Given the aggregate modern-sector production function:

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

from Proposition 1, imposing  $\xi < 1$  through protective labor laws lowers modern-sector output  $Y_m$ , which, given consumption demand (3.3) with finite elasticity of substitution, implies that the relative price of modern-sector goods  $p_m$  will rise. The channels through which voters are affected through the law are therefore:

1. A rise in the relative price of modern-sector goods (affects all voters).
2. A direct loss in labor income through the law (affects working women in the modern sector).

3. A change in wages (affects all modern-sector workers).

All singles and couples in the agricultural sector are only affected through the higher price  $p_m$  of modern-sector good, which unambiguously lowers utility. Hence, voters in the agricultural sector oppose the law.

For modern-sector workers, all three channels are present. For these workers the first channel increases utility, as their marginal product is in terms of modern-sector goods and relative price of agricultural goods declines. We focus on the case of  $\epsilon$  being sufficiently large to ensure that the other two channels dominate, which directly impact the income of these workers in the modern sector. This can always be done as the price effect becomes arbitrarily small as  $\epsilon$  approaches infinity (notice that the preferences of voters in the agricultural sector do not change as long as  $\epsilon$  remains finite). We are therefore left with characterizing the impact of the law on the earnings of modern-sector workers in terms of modern-sector output. This can be broken down into the following cases:

- **Male single unskilled modern-sector workers:** The wage for this group is given by the marginal product:

$$w_{Um} = p_m A \delta \left( \frac{X_{Sm}}{\xi \phi X_{Fm} + X_{Um}} \right)^{1-\delta}.$$

A decline in  $\xi$  unambiguously increases the wage; hence, male unskilled modern-sector workers support the law.

- **Couples composed of single modern-sector husbands and non-working wives:** The impact on these couples income is identical to that of the previous group, and hence they support the law.
- **Female single modern-sector workers:** These workers are affected both through the change in the wage and through the direct reduction in earnings imposed by the law. The labor income for this group is:

$$I = p_m \xi \phi w_{Um} = p_m A \delta \xi \phi \left( \frac{X_{Sm}}{\xi \phi X_{Fm} + X_{Um}} \right)^{1-\delta}.$$

The derivative of this expression with respect to the policy variable  $\xi$  is:

$$\frac{\partial I}{\partial \xi} = p_m A \delta \phi X_{Sm}^{1-\delta} \left[ (\xi \phi X_{Fm} + X_{Um})^{-(1-\delta)} - \xi \phi X_{Fm} (1-\delta) (\xi \phi X_{Fm} + X_{Um})^{-(1-\delta)-1} \right]$$

$$\begin{aligned}
&> p_m A \delta \phi X_{Sm}^{1-\delta} \left[ (\xi \phi X_{Fm} + X_{Um})^{-(1-\delta)} - (\xi \phi X_{Fm} + X_{Um})(1-\delta) (\xi \phi X_{Fm} + X_{Um})^{-(1-\delta)-1} \right] \\
&= p_m A \delta \phi X_{Sm}^{1-\delta} \left[ (\xi \phi X_{Fm} + X_{Um})^{-(1-\delta)} - (1-\delta) (\xi \phi X_{Fm} + X_{Um})^{-(1-\delta)} \right] \\
&= p_m A \delta \phi X_{Sm}^{1-\delta} \delta (\xi \phi X_{Fm} + X_{Um})^{-(1-\delta)} \\
&> 0.
\end{aligned}$$

Hence, these voters unambiguously lose income when the law is imposed, and therefore oppose the law. Intuitively, given Cobb-Douglas production, the elasticity of the wage with respect to relative labor inputs is less than one, so the rise in the wage does not make up for the decline in effective labor supply.

- **Male single skilled modern-sector workers:** The wage for this group is given by the marginal product:

$$w_{Sm} = p_m A (1-\delta) \left( \frac{\xi \phi X_{Fm} + X_{Um}}{X_{Sm}} \right)^\delta.$$

A decline in  $\xi$  unambiguously lowers the wage; hence, skilled modern-sector workers oppose the law.

- **Couples composed of skilled modern-sector husbands and non-working wives:** The impact on these couples income is identical to that of the previous group, and hence they oppose the law.
- **Couples composed of skilled modern-sector husbands and working wives:** The impact on these couples is the combination of two negative effects as explained above, and hence these couples oppose the law.
- **Couples composed of unskilled modern-sector husbands and working wives:** This is the most interesting group, as imposing the law raises the husbands' wages but lowers the wives' earnings. The income for such couples is given by:

$$I = p_m (\xi \phi + 1) w_{Um} = p_m A \delta (\xi \phi + 1) \left( \frac{X_{Sm}}{\xi \phi X_{Fm} + X_{Um}} \right)^{1-\delta}.$$

The derivative of this expression with respect to the policy variable  $\xi$  is:

$$\begin{aligned}
\frac{\partial I}{\partial \xi} &= p_m A \delta \phi X_{Sm}^{1-\delta} \left[ (\xi \phi X_{Fm} + X_{Um})^{-(1-\delta)} - (\xi \phi + 1) X_{Fm} (1-\delta) (\xi \phi X_{Fm} + X_{Um})^{-(1-\delta)-1} \right] \\
&= p_m A \delta \phi X_{Sm}^{1-\delta} \left[ (\xi \phi X_{Fm} + X_{Um})^{-(1-\delta)} - (\xi \phi X_{Fm} + X_{Fm})(1-\delta) (\xi \phi X_{Fm} + X_{Um})^{-(1-\delta)-1} \right]
\end{aligned}$$

$$\begin{aligned}
&> p_m A \delta \phi X_{Sm}^{1-\delta} \left[ (\xi \phi X_{Fm} + X_{Um})^{-(1-\delta)} - (\xi \phi X_{Fm} + X_{Um})(1-\delta) (\xi \phi X_{Fm} + X_{Um})^{-(1-\delta)-1} \right] \\
&= p_m A \delta \phi X_{Sm}^{1-\delta} \left[ (\xi \phi X_{Fm} + X_{Um})^{-(1-\delta)} - (1-\delta) (\xi \phi X_{Fm} + X_{Um})^{-(1-\delta)} \right] \\
&= p_m A \delta \phi X_{Sm}^{1-\delta} \delta (\xi \phi X_{Fm} + X_{Um})^{-(1-\delta)} \\
&> 0.
\end{aligned}$$

Hence, for these couples we also find that the wife's loss in earnings is larger than the total benefit from higher wages, and therefore these couples oppose the law. Notice that here we make use of the condition  $X_{Fm} < X_{Um}$  as stated in the proposition. In addition to the elasticity of the wage, the relative labor supply of women and men also matters because this determines how strongly the ratio of labor inputs moves. For example, if  $X_{Fm}$  were much larger than  $X_{Um}$  (e.g., most unskilled labor supply comes from single women), but also  $\phi$  were small (so that for couples where both spouses work, the husband owns most of the income), the wage would move strongly with  $\xi$ , and such couples would benefit more from the rising wages compared to the loss in the wife's income. For the period considered, however,  $X_{Fm} < X_{Um}$  is the relevant case.

□

**Proof of Proposition 3:** If the wage rigidity is binding, the demand for unskilled modern labor is demand-determined. Let  $X(\xi) = \xi \phi X_{Fm} + X_{Um}$  denote labor supply in this market as a function of the policy variable  $\xi$ , and  $X_D$  is labor demand (for women and men combined). If  $X_D < X(\xi)$ , there is rationing in the labor market and the probability of employment is:

$$p_E = \frac{X_D}{X(\xi)}.$$

Given that the rigid wage applies only to unskilled labor, all other labor markets will continue to clear. The total demand  $X_D$  for efficiency units of unskilled modern labor is determined by the representative firm's profit maximization and hence is such that the wage is equal to the marginal product of labor.  $X_D$  then satisfies:

$$w_{Um} = p_m A \delta \left( \frac{X_{Sm}}{X_D} \right)^{1-\delta}$$

and hence we have:

$$X_D = \left( \frac{p_m A \delta}{w_{Um}} \right)^{\frac{1}{1-\delta}} X_{Sm}.$$

Plugging in the sticky wage, if the wage rigidity is binding, labor demand is given by:

$$X_D = \left( \frac{p_m A \delta}{\nu \bar{w} + (1 - \nu) p_m A \delta \left( \frac{X_{Sm}}{X(\xi)} \right)^{1-\delta}} \right)^{\frac{1}{1-\delta}} X_{Sm}.$$

The derivative of labor demand with respect to the policy variable  $\xi$  is negative but approaches zero as  $\nu$  approaches one, and hence the supply of unskilled labor moves less in response to the policy compared to the flexible-wage case. The impact of the policy change on skilled workers and all workers in the agricultural sector is monotonic in  $X_D$ ; hence, the impact on these workers has the same sign as in Proposition 2 but is quantitatively smaller, and approaches zero as  $\nu$  approaches one (i.e., a perfectly sticky wage).

Next, consider male single unskilled modern sector workers. In the unconstrained case covered in Proposition 2, the elasticity of the wage (and hence earnings) with respect to labor supply  $X(\xi)$  is given by:

$$\frac{\partial \log(w_{Um})}{\partial \log(X(\xi))} = -(1 - \delta).$$

In the case of a sticky wage in the limit as  $\nu$  approaches one, the earnings of unskilled workers are instead directly proportional to the probability of being employed. The elasticity of earnings with respect to labor supply is then negative one:

$$\frac{\log(\bar{w} p_E)}{\partial \log(X(\xi))} = -1.$$

Thus, these workers now have a substantially larger gain from restricting women's labor supply, as they gain in direct proportion to women's reduction in effective labor supply rather than getting a smaller, indirect benefit through rising wages.

Now consider the impact on women working in the modern sector. In the limit with a fully sticky wage, earnings for modern-sector women are given by:

$$\xi \phi \bar{w} p_E = \frac{\xi \phi \bar{w} X_D}{\xi \phi X_{Fm} + X_{Um}}.$$

Hence, working women's expected earnings are increasing in  $\xi$ , implying that working women lose from a policy that lowers  $\xi$ . Lastly, consider couples in the modern sector



composed of an unskilled husband and a working woman. In the limit with a fully sticky wage, total expected earnings for such a couple are given by:

$$\begin{aligned} (\xi\phi + 1)\bar{w}p_E &= \frac{(\xi\phi + 1)\bar{w}X_D}{\xi\phi X_{Fm} + X_{Um}} \\ &= \frac{\xi\phi X_{Fm} + X_{Fm}}{\xi\phi X_{Fm} + X_{Um}} \frac{\bar{w}X_D}{X_{Fm}}, \end{aligned}$$

which is increasing in  $\xi$  because  $X_{Um} > X_{Fm}$ . Hence, these couples lose from a policy that lowers  $\xi$ , as in the baseline case. The condition  $X_{Um} > X_{Fm}$  is relevant here because it implies that male unskilled labor is a larger fraction of the aggregate unskilled labor supply compared to its share in the labor supply of such a couple. Hence, the husband does not gain enough in terms of a higher probability of employment to make up for the loss in expected income of the wife.  $\square$

## C Model Solution and Calibration

### C.1 Solving for Equilibrium

Under the conditions stated in Proposition 1, the modern sectors aggregate and economy behaves as if there is a single modern sector production function given by:

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

Taking wages and prices as given, the representative firm in each sector chooses  $\{X_{Uj}, X_{Sj}, X_{Fj}\}$  to maximize

$$\pi_j = p_j Y_j - w_{Uj} X_{Uj} - w_{Sj} X_{Sj} - w_{Fj} X_{Fj},$$

where  $j \in \{a, m\}$  and  $p_a = 1$ .

It follows that wages are equal to marginal products in each sector and by free labor mobility, wages are equalized across sectors in equilibrium,  $w_{ia} = w_{im} = w_i$  for  $i \in \{U, S, F\}$ , which yields

$$w_U = \beta X_{Ua}^{\beta-1} X_{Sa}^\gamma X_{Fa}^\alpha = p_m A \delta X_{Sm}^{1-\delta} (\xi\phi X_{Fm} + X_{Um})^{\delta-1} \quad (8)$$

$$w_S = \gamma X_{Ua}^\beta X_{Sa}^{\gamma-1} X_{Fa}^\alpha = p_m A (1-\delta) X_{Sm}^{-\delta} (\xi\phi X_{Fm} + X_{Um})^\delta \quad (9)$$

$$w_F = \alpha X_{Ua}^\beta X_{Sa}^\gamma X_{Fa}^{\alpha-1} = p_m A \delta \xi \phi X_{Sm}^{1-\delta} (\xi \phi X_{Fm} + X_{Um})^{\delta-1} \quad (10)$$

(8) and (10) imply

$$w_F = \xi \phi w_U \quad (11)$$

$$\frac{\alpha}{\beta \xi \phi} = \frac{X_{Fa}}{X_{Ua}}. \quad (12)$$

Rearranging (8) and inserting (12) yields

$$\begin{aligned} \frac{X_{Sm}}{\xi \phi X_{Fm} + X_{Um}} &= \left( \frac{\beta}{p_m A \delta} \frac{X_{Sa}^\gamma X_{Fa}^\alpha}{X_{Ua}^{1-\beta}} \right)^{\frac{1}{1-\delta}} \\ &= \left( \frac{\beta}{p_m A \delta} \left( \frac{\alpha}{\beta \xi \phi} \right)^\alpha \frac{X_{Sa}^\gamma}{X_{Ua}^{1-\beta-\alpha}} \right)^{\frac{1}{1-\delta}}. \end{aligned} \quad (13)$$

Further, dividing (8) by (9) yields

$$\frac{\beta}{\gamma} \frac{X_{Sa}}{X_{Ua}} = \frac{\delta}{1-\delta} \frac{X_{Sm}}{\xi \phi X_{Fm} + X_{Um}} \quad (14)$$

Together, (8) and (14) yield:

$$X_{Sa} = \left[ \frac{p_m A \delta}{\beta} \left( \frac{\beta \xi \phi}{\alpha} \right)^\alpha \left( \frac{1-\delta}{\delta} \frac{\beta}{\gamma} \right)^{1-\delta} X_{Ua}^{\delta-\alpha-\beta} \right]^{\frac{1}{\gamma+\delta-1}} \quad (15)$$

Inserting (15) into (13) yields

$$\begin{aligned} &\frac{X_{Sm}}{\xi \phi X_{Fm} + X_{Um}} \\ &= \left[ \frac{\beta}{p_m A \delta} \left( \frac{\alpha}{\beta \xi \phi} \right)^\alpha X_{Ua}^{\alpha+\beta-1} \left[ \frac{p_m A \delta}{\beta} \left( \frac{\beta \xi \phi}{\alpha} \right)^\alpha \left( \frac{1-\delta}{\delta} \frac{\beta}{\gamma} \right)^{1-\delta} \right]^{\frac{\gamma}{\gamma+\delta-1}} X_{Ua}^{\frac{\gamma(\delta-\alpha-\beta)}{\gamma+\delta-1}} \right]^{\frac{1}{1-\delta}} \\ &= \left[ \frac{\beta}{p_m A \delta} \left( \frac{p_m A \delta}{\beta} \right)^{\frac{\gamma}{\gamma+\delta-1}} \left( \frac{\alpha}{\beta \xi \phi} \right)^{\alpha-\frac{\alpha\gamma}{\gamma+\delta-1}} \left[ \frac{1-\delta}{\delta} \frac{\beta}{\gamma} \right]^{\frac{(1-\delta)\gamma}{\gamma+\delta-1}} X_{Ua}^{\frac{(\delta-1)(\alpha+\beta+\gamma-1)}{\gamma+\delta-1}} \right]^{\frac{1}{1-\delta}} \\ &= \left[ \left( \frac{p_m A \delta}{\beta} \right) \left[ \frac{1-\delta}{\delta} \frac{\beta}{\gamma} \right]^\gamma \left( \frac{\beta \xi \phi}{\alpha} \right)^\alpha \right]^{\frac{1}{\gamma+\delta-1}} X_{Ua}^{\frac{1-\alpha-\beta-\gamma}{\gamma+\delta-1}} \end{aligned}$$

Inserting the labor market clearing conditions

$$X_{Sm} = N_S - X_{Sa} \quad (16)$$

$$X_{Fm} = N_F - X_{Fa} \quad (17)$$

$$X_{Um} = N_U - X_{Ua} \quad (18)$$

together with (12), and rearranging yields

$$N_S - X_{Sa} = \left[ \left( \frac{p_m A \delta}{\beta} \right) \left[ \frac{1 - \delta}{\delta} \frac{\beta}{\gamma} \right]^\gamma \left( \frac{\beta \xi \phi}{\alpha} \right)^\alpha \right]^{\frac{1}{\gamma + \delta - 1}} \left( (N_U + \xi \phi N_F) X_{Ua}^{-\frac{\alpha + \beta + \gamma - 1}{\gamma + \delta - 1}} - \left( 1 + \frac{\alpha}{\beta} \right) X_{Ua}^{\frac{\delta - \alpha - \beta}{\gamma + \delta - 1}} \right) \quad (19)$$

By inserting (15), it follows that

$$N_S = \left[ \left( \frac{p_m A \delta}{\beta} \right) \left[ \frac{1 - \delta}{\delta} \frac{\beta}{\gamma} \right]^\gamma \left( \frac{\beta \xi \phi}{\alpha} \right)^\alpha \right]^{\frac{1}{\gamma + \delta - 1}} \left( (N_U + \xi \phi N_F) X_{Ua}^{-\frac{\alpha + \beta + \gamma - 1}{\gamma + \delta - 1}} - \left( 1 + \frac{\alpha}{\beta} \right) X_{Ua}^{\frac{\delta - \alpha - \beta}{\gamma + \delta - 1}} \right) + \left[ \frac{p_m A \delta}{\beta} \left( \frac{\beta \xi \phi}{\alpha} \right)^\alpha \left( \frac{1 - \delta}{\delta} \frac{\beta}{\gamma} \right)^{1 - \delta} \right]^{\frac{1}{\gamma + \delta - 1}} X_{Ua}^{\frac{\delta - \alpha - \beta}{\gamma + \delta - 1}}. \quad (20)$$

Given a relative price  $p_m$ , (20) determines  $X_{Ua}$  in terms of exogenous variables. To characterize  $p_m$ , note for a household with income  $I_h$ , the demand for the agricultural and modern sector good is given by

$$c_a^*(I_h) = \frac{p_m^\epsilon I_h}{p_m + p_m^\epsilon},$$

$$c_m^*(I_h) = \frac{I_h}{p_m + p_m^\epsilon}.$$

Inserting  $c_j^h = c_j^*(I_h)$  into the goods market clearing conditions yields

$$Y_a = \frac{p_m^\epsilon}{p_m + p_m^\epsilon} \sum_h N_h I_h \quad (21)$$

$$Y_m = \frac{1}{p_m + p_m^\epsilon} \sum_h N_h I_h \quad (22)$$

Together, (21) and (22) imply

$$p_m = \left( \frac{Y_a}{Y_m} \right)^{\frac{1}{\epsilon}}. \quad (23)$$

To numerically solve for an equilibrium, we iterate the following steps:

1. We fix a value for the relative price  $p_m$ , and solve (20) for  $X_{Ua}$ .
2. Given  $X_{Ua}$ , we use (15) and (12) to solve for  $X_{Sa}$  and  $X_{Fa}$ .
3. Inserting  $(X_{Ua}, X_{Sa}, X_{Fa})$  into the labor market clearing conditions (16)–(18) yields  $(X_{Um}, X_{Sm}, X_{Fm})$ .
4. We obtain  $Y_a$  and  $Y_m$  by inserting  $(X_{Ua}, X_{Sa}, X_{Fa})$  and  $(X_{Um}, X_{Sm}, X_{Fm})$  into the production functions:

$$\begin{aligned} Y_a &= X_{Fa}^\alpha X_{Ua}^\beta X_{Sa}^\gamma, \\ Y_m &= AX_{Sm}^{1-\delta} (\xi \phi X_{Fm} + X_{Um})^\delta. \end{aligned}$$

5. Inserting  $Y_a$  and  $Y_m$  into (23) yields a goods market equilibrium price  $p_m$ .

We iterate steps 1.–5. until convergence of  $p_m$ .

## C.2 Calibration

The model is calibrated to closely match historical data for the US in terms of the distribution of households types, the distribution of workers across sectors, and the structure of wages. We match the gender productivity gap in the modern sector,  $\phi_t$ , to historical data on the gender wage ratio documented by Goldin (1990). We fix the values home productivity,  $\psi$ , may take at  $\underline{\psi} = 0$  and  $\bar{\psi} = 10^9$ , respectively, to ensure that in equilibrium all  $\underline{\psi}$ -type women work, while all  $\bar{\psi}$ -type women choose not to work.

To calibrate  $\alpha, \beta, \gamma$  and  $\delta$  we leverage the following relationships that are implied by households' optimal sector choices:

$$\frac{w_{S,t} X_{Sa,t}}{w_{U,t} X_{Ua,t}} = \frac{\gamma}{\beta}, \quad (24)$$

$$\frac{w_{F,t} X_{Fa,t}}{w_{U,t} X_{Ua,t}} = \frac{\alpha}{\beta}, \quad (25)$$

$$\frac{w_{S,t}}{w_{U,t}} \frac{X_{Sm,t}}{\frac{w_{F,t}}{w_{U,t}} X_{Fm,t} + X_{Um,t}} = \frac{1 - \delta}{\delta}. \quad (26)$$

Specifically, we use these equations to map wages and sector employment shares on the left hand side of (24)-(26) into the model parameters on the right hand side. For this we use data from 1910, the earliest decade for which data on the relevant left hand side variables of (24)-(26) are available. We set the wage ratio of females to unskilled males to  $\frac{w_{F,1910}}{w_{U,1910}} = 0.51$  based on historical data on the gender earnings ratio in [Goldin \(1990\)](#). Further, the wage ratio of skilled to unskilled workers is set to  $\frac{w_{S,1910}}{w_{U,1910}} = 1.72$  based on historical data on skill premia provided by [Goldin and Katz \(1999\)](#).<sup>46</sup> For the agricultural sector, we additionally impose that the factor share of land is 0.3 (i.e.,  $\alpha, \beta$  and  $\gamma$  sum to 0.7) following [Hansen and Prescott \(2002\)](#). If protective labor laws are implemented,  $\bar{\xi}$  is set modestly below 1, at  $\bar{\xi} = 0.9$ . Quantifying protective legislation as a modest reduction in women's product of labor is consistent with empirical studies that have documented a modest impact of protective laws on women's labor market outcomes (e.g., [Goldin 1988b](#)). The timing of the introduction and end of protective laws is robust to choosing larger or smaller values for  $\bar{\xi}$ .

Finally, we calibrate modern sector total factor productivity (TFP),  $A_t$ , by minimizing for each time period the relative distance between model and empirical population shares of various household types working in the modern sector. Specifically, we match the share of unskilled single men, skilled single men, single women, unskilled men married to a working wife, and skilled men married to a working wife in the modern sector.

While the equilibria defined in Definition 1 determine the allocation of individuals across sectors,  $\{X_{Fa}, X_{Fm}, X_{Ua}, X_{Um}, X_{Sa}, X_{Sm}\}$ , such allocations may be consistent with several distributions of household types across sectors. For example,  $X_{Ua}$  may consist entirely of unskilled single men, or may in part consist of unskilled men married to  $\underline{\psi}$ -type women. Throughout, when solving the model numerically, we select an equilibrium that satisfies all constraints implied by our model, and resembles the empirical distribution of household types across sectors as closely as possible, given the model-implied constraints. For a detailed description of the algorithm we use to implement equilibrium selection, see Appendix C.3 below.

Table C.1 summarizes the calibrated parameter values.

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<sup>46</sup>Specifically, [Goldin and Katz \(1999\)](#) estimate returns to a year in high school at 0.112 and returns to a year of college at 0.097 for 1914. Assuming skilled men's education exceeds unskilled men's education by 3 years of high school and 4 years, we approximate the 1914 skill premium at  $3 \times 0.112 + 4 \times 0.097 = 0.72$ .

Table C.1: Parameter Values

Parameter	Description	Value	Source
A. Agricultural Sector Production			
$\alpha$	Female Labor Share	0.20	Equation (25) and the corresponding wage and labor supply ratios in 1910. See Appendix Table C.4.
$\gamma$	Skilled Male Labor Share	0.11	Equation (24) and the corresponding wage and labor supply ratios in 1910. See Appendix Table C.4.
$1 - \alpha - \beta - \gamma$	Land Input Share	0.30	Hansen and Prescott (2002)
B. Modern Sector Production			
$\delta$	Unskilled Labor Share	0.73	Equation (26) and the corresponding wage and labor supply ratios in 1910. See Appendix Table C.4.
$\phi_t$	Gender Productivity Gap	–	Goldin (1990) and Shrider et al. (2021). See Appendix Table C.3.
$A_t$	Productivity	–	Estimated to match all $N_{ht}$ in the modern sector. See Appendix Table C.2.
$\bar{\xi}$	Female Productivity with Protective Legislation	0.90	See text for details.
C. Households			
$\bar{\psi}$	High-Type Home Productivity	$10^9$	We set $\bar{\psi} \rightarrow +\infty$ to ensure all $\bar{\psi}$ -type women do not work in the market.
$\underline{\psi}$	Low-Type Home Productivity	0.00	We set $\underline{\psi} = 0$ to ensure all $\underline{\psi}$ -type women work in the market.
$\epsilon$	Elasticity of Substitution	6.00	See text for details.
$N_{ht}$	Population Shares	–	Population share of household type $h$ in decade $t$ from the US Census. See Appendix Table C.2.
$\rho$	Mortality Rate	0.10	Maximum change in household type $h$ observed across all decades.
$\kappa_{ht}$	Type-Specific Birth Rates	–	Given $\rho$ , we choose $\kappa_{ht}$ such that (i) Equation (5) holds; (ii) $N_{ht}$ matches the empirical population share of type $h$ in decade $t$ from the US Census.

### C.3 Equilibrium Selection

Given an allocation of individuals across sectors,  $(X_{Fa}, X_{Fm}, X_{Ua}, X_{Um}, X_{Sa}, X_{Sm})$ , we choose the allocation of household types across sectors by the following steps. Formally,

we need to find weights  $(\omega_1, \dots, \omega_9)$ , such that:

$$\begin{aligned} X_{Ua} &= \omega_1 N_{U\psi} + \omega_2 N_{U\bar{\psi}} + \omega_3 N_U, \\ X_{Fa} &= \omega_4 N_{U\psi} + \omega_5 N_{S\psi} + \omega_6 N_{\psi}, \\ X_{Sa} &= \omega_7 N_{S\psi} + \omega_8 N_{S\bar{\psi}} + \omega_9 N_S, \end{aligned}$$

while abiding to the restrictions implied by our model. Specifically, these restrictions are:

1. Couples need to choose the same sector:  $\omega_1 = \omega_4$  and  $\omega_5 = \omega_7$ .
2. Couples in which the wife is of type  $\bar{\psi}$  choose the moder sector:  $\omega_2 = \omega_8 = 0$ .

Inserting these restrictions yields:

$$X_{Ua} = \omega_1 N_{U\psi} + \omega_3 N_U, \tag{27}$$

$$X_{Fa} = \omega_1 N_{U\psi} + \omega_5 N_{S\psi} + \omega_6 N_{\psi}, \tag{28}$$

$$X_{Sa} = \omega_5 N_{S\psi} + \omega_9 N_S. \tag{29}$$

We choose a data driven equilibrium selection procedure to find weights  $(\omega_1, \omega_3, \omega_5, \omega_6, \omega_9)$  that are closely in line with our data, while satisfying (27)–(29) and  $0 \leq \omega_k \leq 1$  for  $k \in \{1, 3, 5, 6, 9\}$ . Specifically, for each time period, we proceed by the following algorithm:

1. Equate  $\frac{\omega_1}{\omega_3}$  with the empirical ratio of unskilled married men to unskilled single men in the agricultural sector, and  $\frac{\omega_5}{\omega_9}$  with the same ratio for skilled men.
2. Use (28) to obtain a solution  $\omega_6^*$  for  $\omega_6$ .
3. If  $\omega_6^* < 0$ : decrease  $\omega_1$  and  $\omega_5$  proportionately until solving (28) for  $\omega_6$  yields a solution that satisfies  $\omega_6^* \geq 0$ .
4. If  $\omega_6^* > 1$ : increase  $\omega_1$  and  $\omega_5$  proportionately until solving (28) for  $\omega_6$  yields a solution that satisfies  $\omega_6^* \leq 1$ .

## C.4 Data Targets and Sources

Table C.2: Household type shares ( $N_{ht}$ ) from US Census data

Year	Unskilled single men	Skilled single men	Single working women	Unskilled husband, non-working wife	Unskilled husband, working wife	Skilled husband, non-working wife	Skilled husband, working wife
	$N_U$	$N_S$	$N_{\underline{\psi}}$	$N_{U\bar{\psi}}$	$N_{U\psi}$	$N_{S\bar{\psi}}$	$N_{S\psi}$
1870	0.11	0.02	0.04	0.30	0.29	0.07	0.17
1880	0.12	0.02	0.05	0.27	0.31	0.07	0.16
1900	0.16	0.03	0.08	0.31	0.23	0.08	0.12
1910	0.17	0.03	0.09	0.32	0.19	0.09	0.10
1920	0.16	0.02	0.09	0.36	0.18	0.09	0.09
1930	0.14	0.02	0.10	0.38	0.17	0.11	0.08
1940	0.13	0.02	0.10	0.40	0.17	0.11	0.07
1950	0.09	0.02	0.09	0.42	0.19	0.12	0.07
1960	0.05	0.01	0.06	0.40	0.24	0.15	0.09
1970	0.05	0.01	0.07	0.32	0.28	0.15	0.12
1980	0.07	0.03	0.10	0.22	0.30	0.11	0.17
1990	0.08	0.03	0.12	0.14	0.33	0.09	0.22
2000	0.08	0.04	0.13	0.12	0.30	0.09	0.23

*Notes:* Own calculations based on US Census data. The sample restrictions described in Appendix D.1 apply. To compute the population shares of skilled and unskilled men, we assume that the share of skilled men in agricultural and in the modern sector are identical (note that the skill type of men in agriculture is not observed in the Census data). We use the full-count Census until 1950 and the 1% samples afterwards. Since the IPUMS 1900 full-count Census does not contain information on labor force participation, we impute the 1900 Census. Note that the 1890 Census was previously destroyed and no data are available.



Table C.3: Gender Earnings Ratio Over Time

Years	Gender earnings ratio
1870	0.4165
1880	0.4398
1900	0.4863
1910	0.5095
1920	0.5328
1930	0.5560
1940	0.6005
1950	0.6449
1960	0.6070
1970	0.5940
1980	0.6020
1990	0.7160
2000	0.7370

*Notes:* For each year between 1890 and 2000 we approximate the female-to-male ratio of median earnings based on data for 1890 and 1930 and 1955 from [Goldin \(1990\)](#), and data from 1960 to 2000 from [Shrider et al. \(2021\)](#), Table A-7. We use data from 1955 from [Goldin \(1990\)](#) as an approximation of the 1950 gender earnings ratio, and use linear interpolation and extrapolation to approximate the gender earnings ratio in 1940, and 1870-1920.

Table C.4: Wage and Labor Supply Ratios in 1910

Ratio	Value
$\frac{X_{Fa,1910}}{X_{Ua,1910}}$	1.04
$\frac{X_{Sa,1910}}{X_{Ua,1910}}$	0.16
$\frac{X_{Sm,1910}}{\frac{w_{F,1910}}{w_{U,1910}} X_{Fm,1910} + X_{Um,1910}}$	0.22

*Notes:* Own calculations based on US Census data. The sample restrictions described in the main text apply. To compute the population shares of skilled and unskilled men, we assume that the share of skilled men in agricultural and in the modern sector are identical (note that the skill type of men in agriculture is not observed in the Census data). We use the full-count Census until 1950 and the 1% samples afterwards. Since the IPUMS 1900 full-count Census does not contain information on labor force participation, we impute the 1900 Census. Note that the 1890 Census was previously destroyed and no data are available.

## C.5 Model Fit

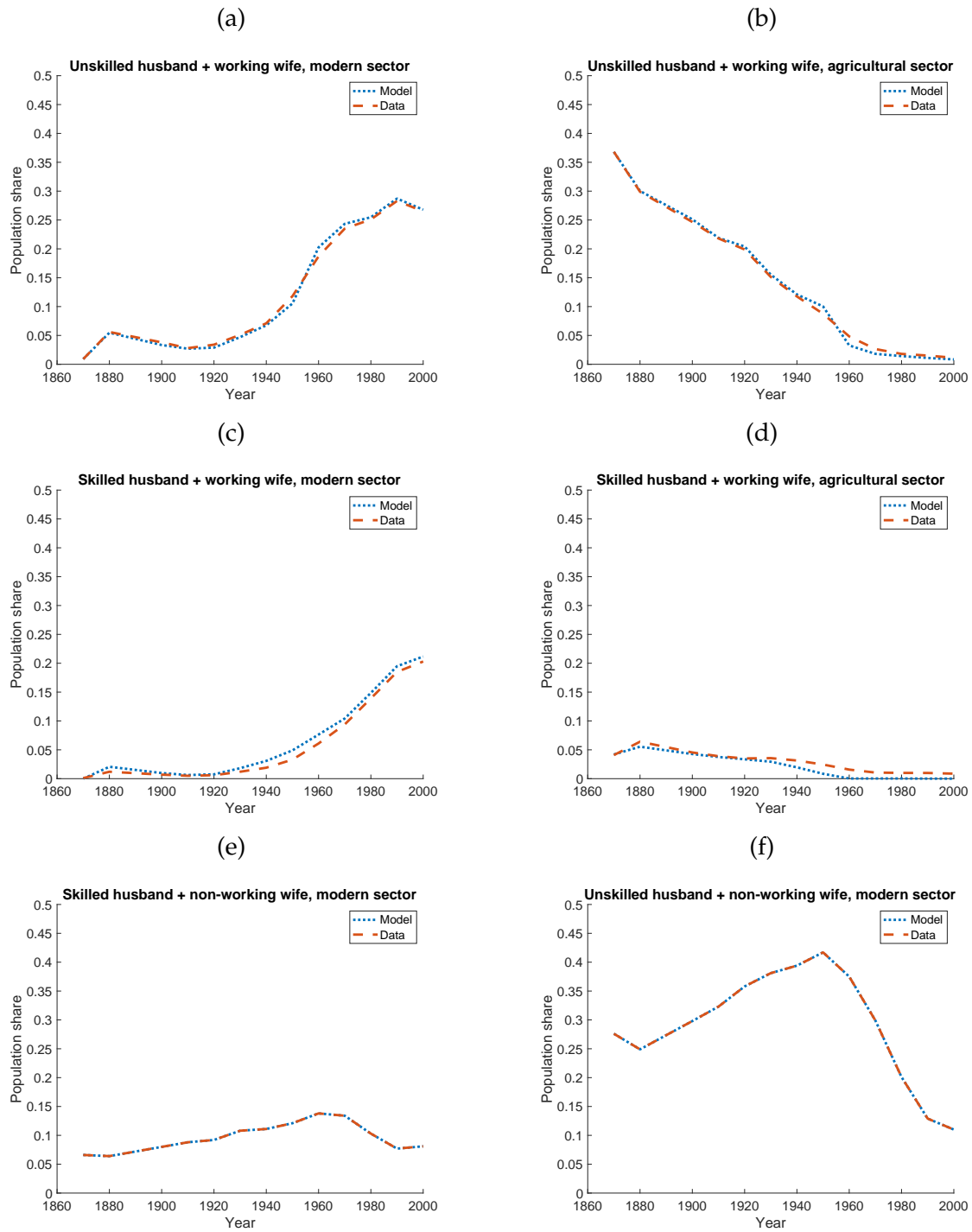


Figure C.1: Model Fit: Model Moments vs. Empirical Counterparts I

*Notes:* Data moments are computed from US Census data. Model moments are based on our baseline calibration described in Section 6.

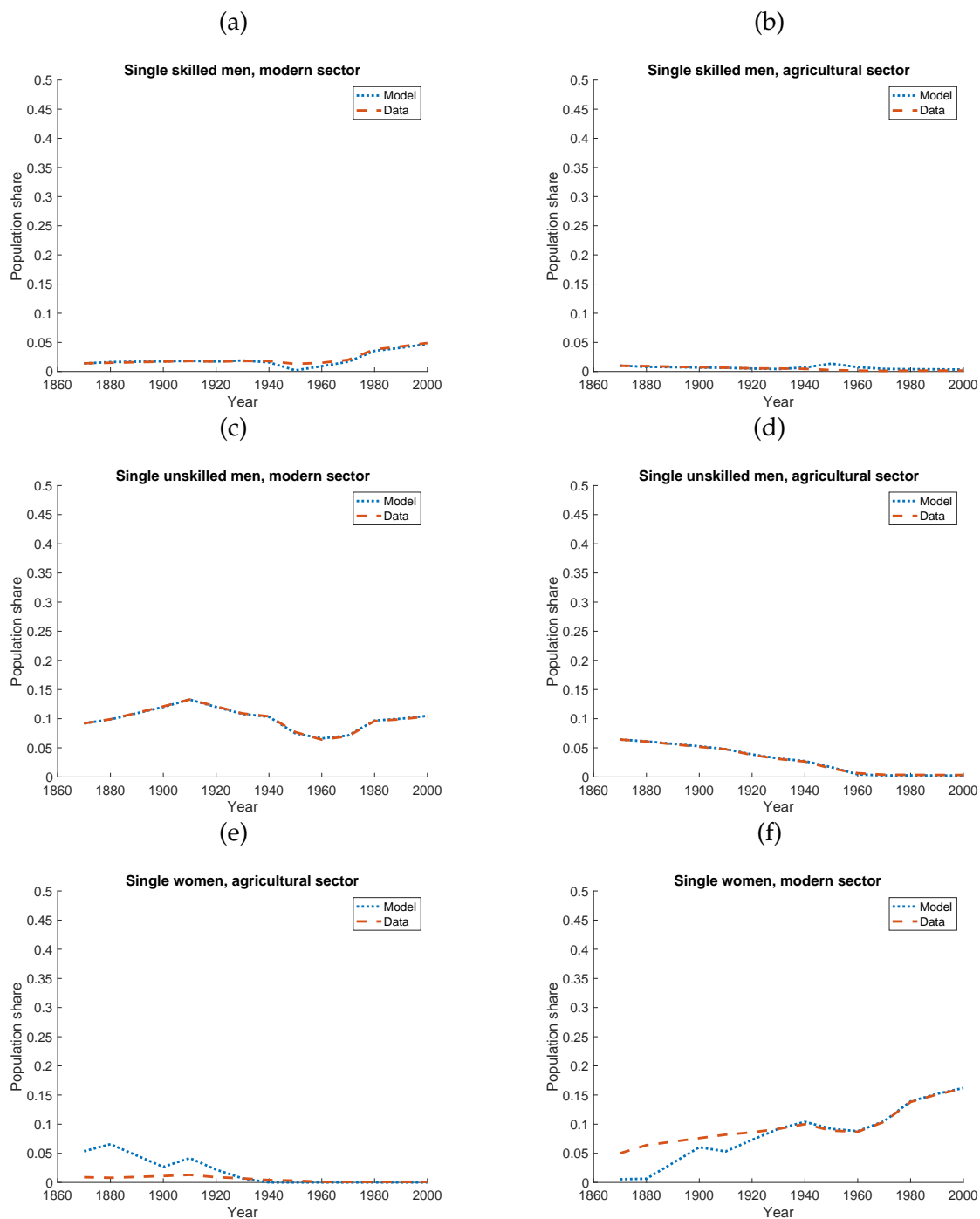


Figure C.2: Model Fit: Model Moments vs. Empirical Counterparts II

*Notes:* Data moments are computed from US Census data. Model moments are based on our baseline calibration described in Section 6.

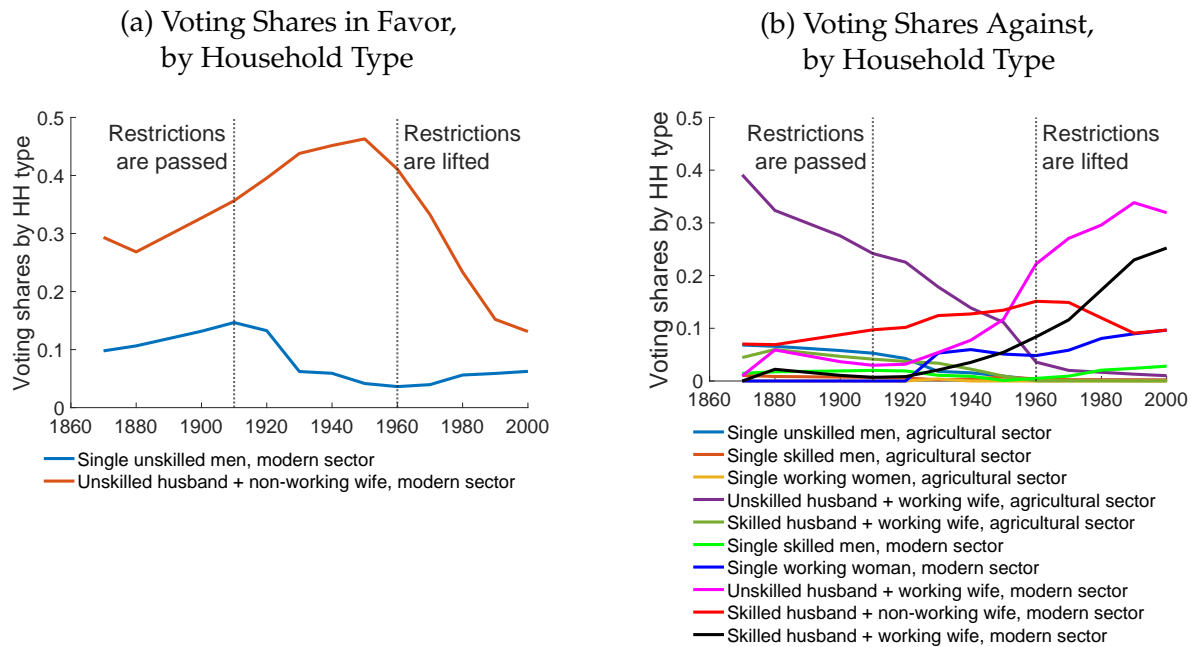


Figure C.3: Voting Shares For/Against Protective Legislation in the Calibrated Model

Notes: Displayed are the voting shares in the baseline calibration. Protective legislation is enacted if a majority of more than 50% of total votes supports restrictions. Conversely, restrictions are lifted if a majority of more than 50% of votes opposes them. Up to 1920, we count only men's votes. Post 1920 we count both men's and women's votes.

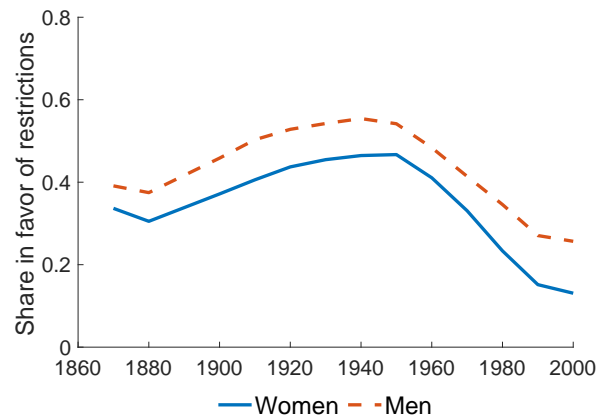


Figure C.4: Women's/ Men's Voting Shares in the Calibrated Model

Notes: Displayed are voting shares in favor of protective legislation for men and women, relative to the total votes by each group. The gender difference in voting shares stems from differing preferences for protective legislation between single men and single women in the modern sector.

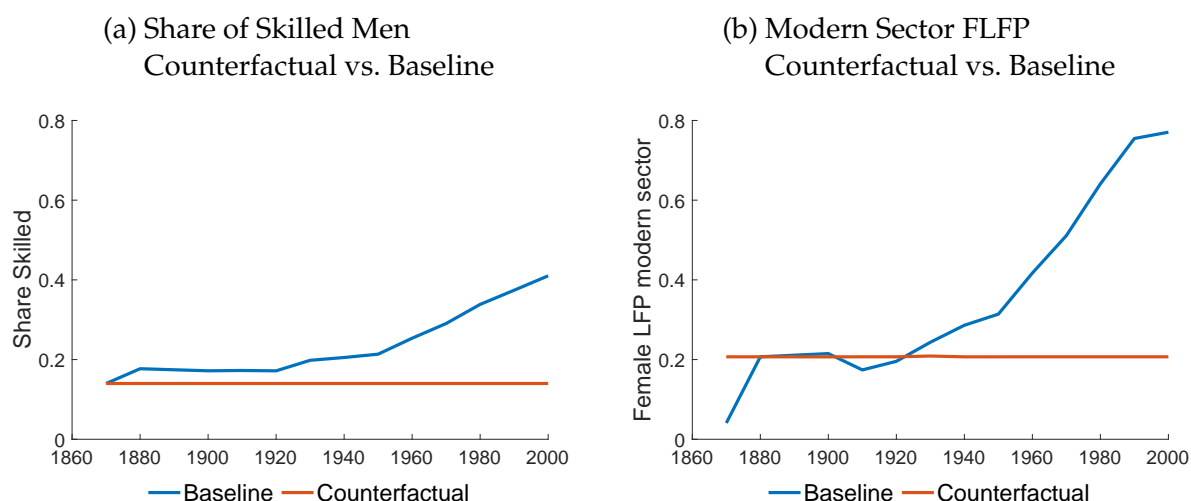


Figure C.5: Counterfactual Population Shares:  
No Skill Growth/ No Modern Sector FLFP Growth

*Notes:* Panel (a) displays the share of skilled men as predicted by our calibrated model in the baseline and under the counterfactual scenario that the share of skilled men remained constant since 1870. Panel (b) displays female labor force participation in the modern sector as predicted by our calibrated model in the baseline and under the counterfactual scenario that female labor force participation remained constant since 1880.



Figure C.6: Counterfactual Population Shares: No Structural Change

*Notes:* Displayed are population shares as predicted by our calibrated model in the baseline and under the counterfactual scenario that no structural change had occurred since 1870 of women working in the modern sector (Panel a), unskilled men working in the modern sector (Panel b), and skilled men working in the modern sector (Panel c).

## D Data and Additional Empirical Evidence

### D.1 Computation of Population Shares and Predicted Voting Shares in US Census

**Data** We use IPUMS-USA data to compute population and predicted voting shares. Spouses are matched based on an IPUMS imputation procedure (see the chapter on Family Interrelationships in the IPUMS User’s Guide for details). This is particularly relevant for 1870, as marital status was not recorded in the 1870 Census. Black women and men were included in the Census throughout our sample period (1870–2000), and were granted the right to vote in 1870, prior to the start of our sample.

**Industry Classification** We use the 1950 Census Bureau industrial classification to group singles and couples into sectors, as it allows for consistent comparison of industry data across all Census years. Married couples in the agricultural sector are classified based on the husband’s industry or occupation code. If an individual reports an occupation as farmer, farm manager, or farm laborer ( $\text{occ1950} \in \{100, 123, 810, 820, 830, 840\}$ ), we classify the individual—as well as his wife, in the case of a married man—as part of the agricultural sector. We also include Forestry and Fishery in the agricultural sector, corresponding to the industry codes 105, 116, and 126. The modern sector includes all remaining industries, including Mining, Construction, Manufacturing, Transportation Communication and Other Utilities, Wholesale and Retail Trade, Finance Insurance and Real Estate, all Services, and Public Administration.

**Occupation Classification** We use the occupation classification by [Autor and Dorn \(2013\)](#) to identify men’s skill type. Their classification categorizes occupations into high-, medium-, and low-skill. We collapse the latter two groups into one low-skill occupation category. High-skill occupations include management and professional roles (including teachers), technical and public security occupations, and roles in financial sales. Low-skill occupations encompass administrative support, retail sales, low-skill services, production and craft work, machine operators, assemblers and inspectors, as well as occupations in transportation, construction, mechanics, and mining. According to [Autor and Dorn \(2013\)](#), all agricultural occupations fall under the low-skill category. Hence, we cannot empirically distinguish between high- and low-skill men in agriculture. When reporting population shares and predicted voting shares, we therefore do not differentiate men in the agricultural sector by skill.





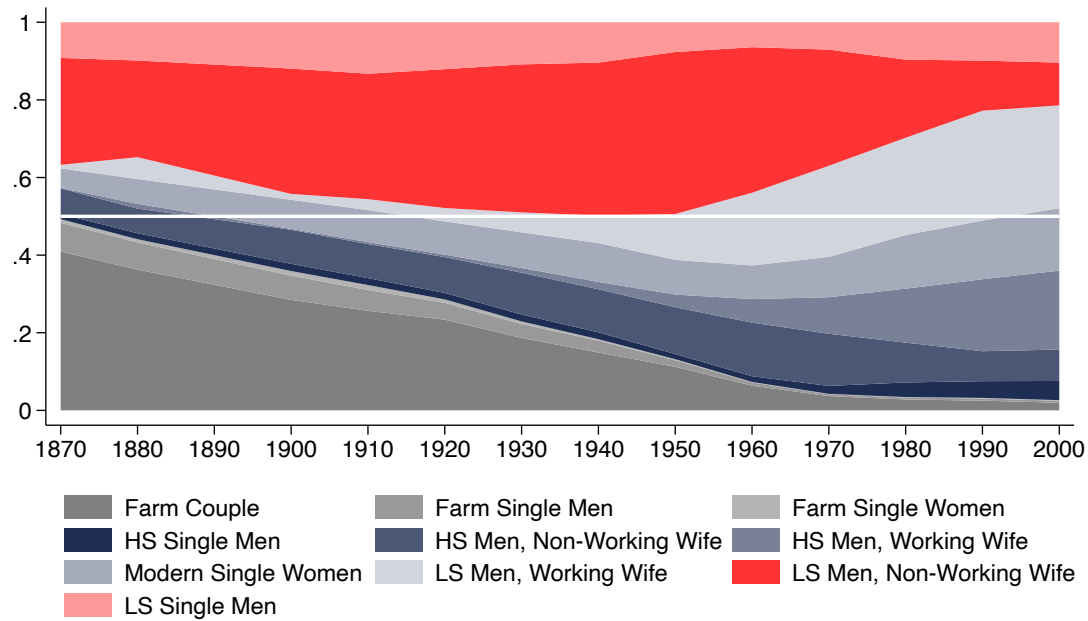


Figure D.2: Population Shares in the US, 1870–2000

*Notes:* Displayed is the composition of the population, computed based on the decennial US Census 1870–2000. From 1870 to 1950 (except 1900), we use the full count Census. In 1900, we use the 5% sample and from 1960 onward the 1% sample. Groups that, according to our model, vote in favor of protective labor legislation are displayed in shades of red. Groups that, according to our model, vote against protective labor legislation are displayed in shades of gray and blue. The share of a group is computed as the number of households of that type, weighted by the household type’s number of votes, divided by the overall population.

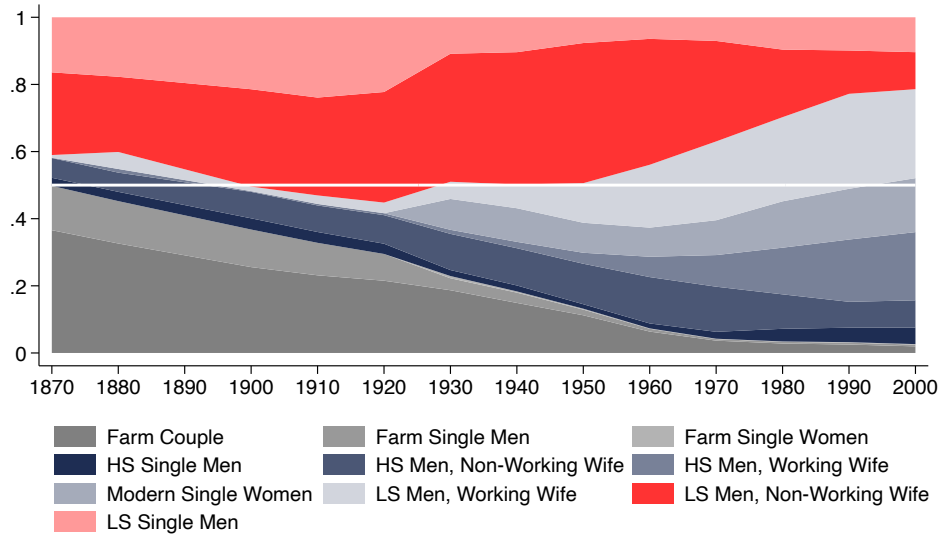
## D.2 Robustness Checks

**Including Ages 21–99** We classify individuals in the same way as in the baseline sample, but extend the age range from 21–65 to 21–99. We reassign retired individuals, for whom we do not observe sector and occupation. Conditional on their marital status, we proportionally assign these individuals to existing household types, effectively assuming they are distributed across sectors and occupations in the same way as individuals aged 21–65. Appendix Figure D.3 shows that there is close to no difference between our baseline and the extended sample, suggesting our age restriction is not crucial for our results that are based on population shares and predicted voting shares in the US Census.

**Including Individuals Not in the Labor Force (NILF)** We reclassify single women and men, and married men who report being out of the labor force. Conditional on their marital status, we proportionally assign these individuals to existing household types, effectively assuming they are distributed across sectors, and occupations in the same way as those in the labor force. The resulting predicted voting shares are plotted in Appendix Figure D.4. Compared to our baseline sample, the predicted voting shares remain nearly unchanged.

**Female Labor Force Participation** Female labor participation (FLFP) in the modern sector plays a critical role when assessing the introduction and end of protective legislation. To assess whether our constructed sample of population shares replicates changes in FLFP in the modern sector, we plot the resulting time series between 1870 and 2000 in Appendix Figure D.5. The changes in FLFP have been highly uneven across decades. Before 1920, FLFP grew very slowly; it then increased more rapidly between 1920 and 1950, followed by exponential growth from 1950 to 2000. A similar pattern is observed in Fernández (2013), who plots FLFP for all married white women (independent of sectors) using US Census data. Doepke et al. (2023), Figure 5b, illustrate comparable changes in FLFP over time, using data published by the US Department of Commerce for the period before 1960 and extending the time series from 1962 onward with data from the Current Population Survey. Their sample, however, includes all women aged 16 and above. While the levels of FLFP vary, the broad changes in FLFP over time are remarkably consistent across these studies.

(a) Baseline Sample



(b) 21–99 Sample

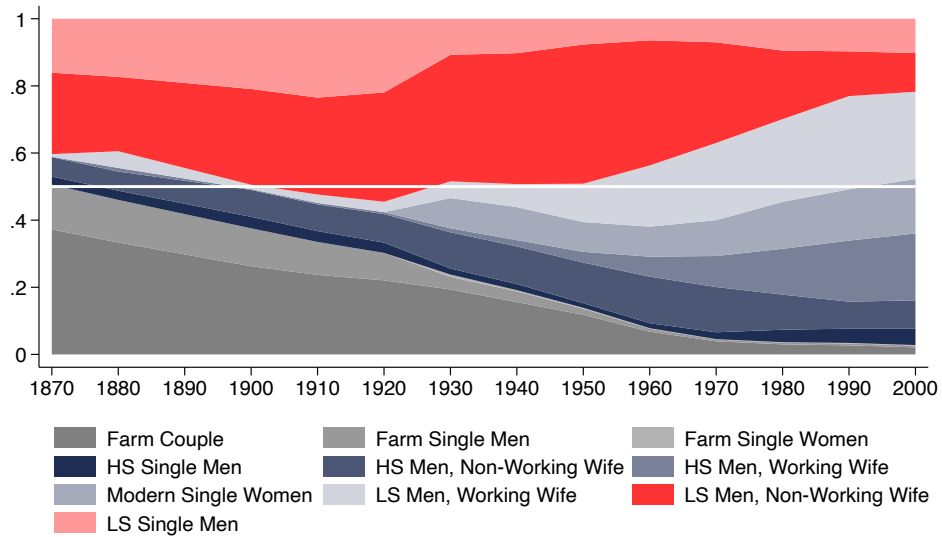
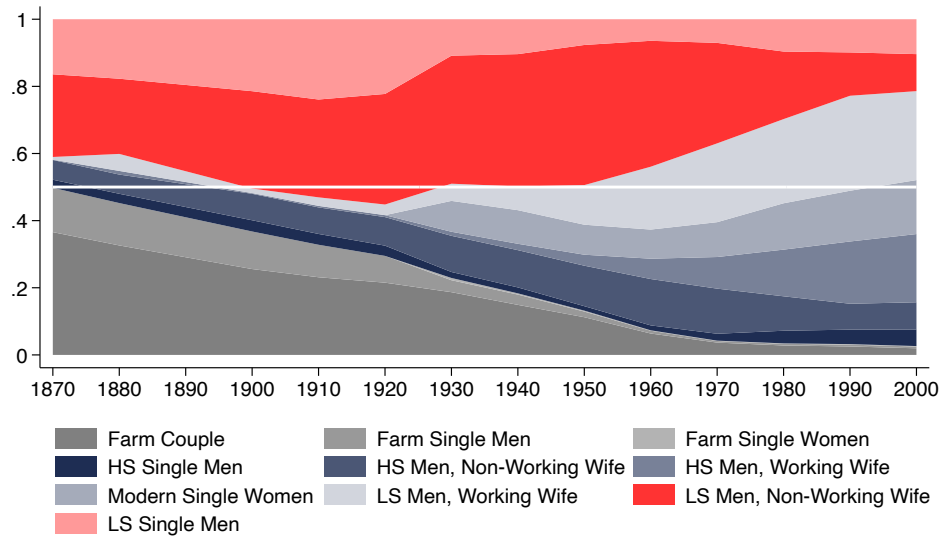


Figure D.3: Predicted Support: Baseline Sample vs. 21–99 Sample

*Notes:* We compare the predicted support calculated in our baseline sample, ages 21–65, from the decennial US Census 1870–2000 and compare it to predicted support derived from a sample that includes ages 21–99, but uses the same classification to assign individuals to different household types.

(a) Baseline Sample



(b) NILF Sample

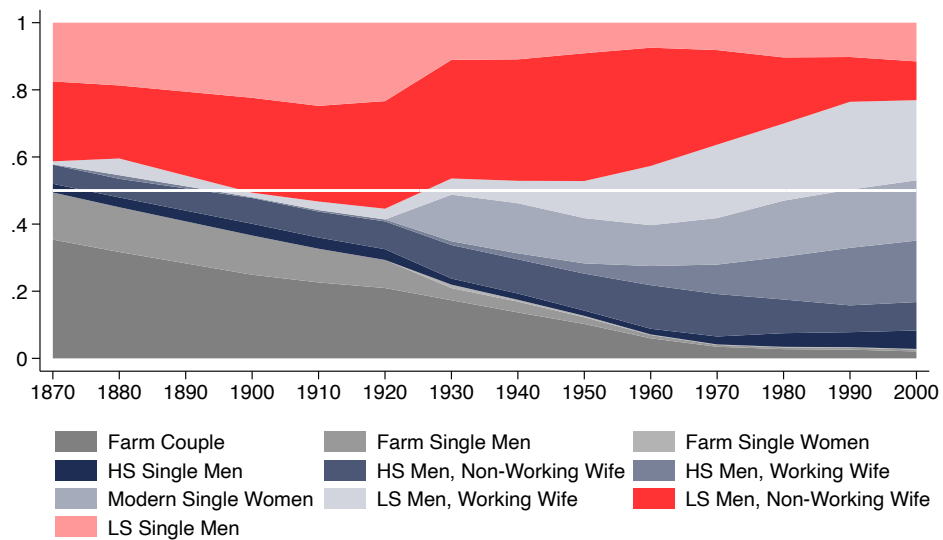


Figure D.4: Predicted Support: Baseline Sample vs. NILF Sample

*Notes:* We compare predicted support calculated in our baseline sample from the decennial US Census 1870–2000 and compare it to predicted support implied when married men, single men and single women not in the labor force (NILF) are re-assigned to existing household types.

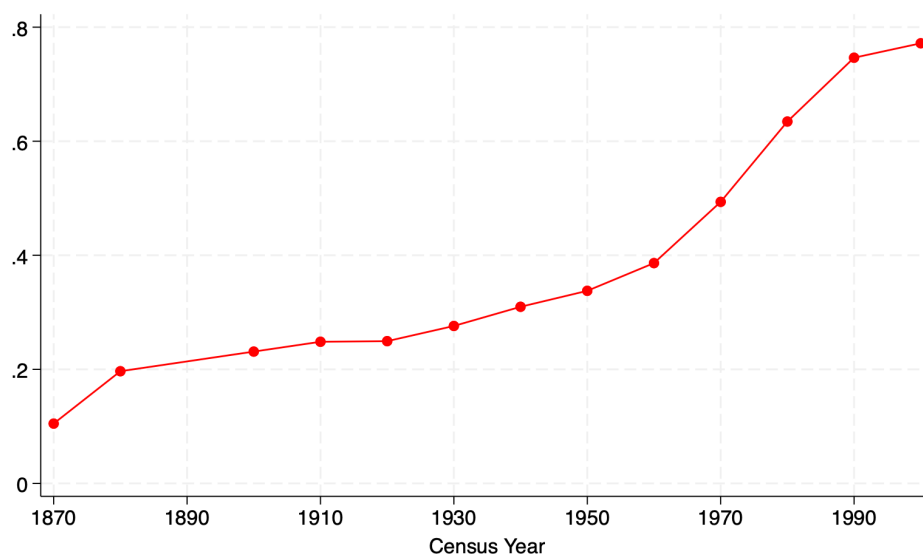


Figure D.5: Female Labor Force Participation in the Modern Sector

*Notes:* We plot female labor force participation for both married and single women in the modern sector for the ages 21–65 between 1870 and 2000 in our constructed sample of population shares from the IPUMS US Census.

### D.3 Individual-level Data

To measure the attitudes of older men in the NLSM and of mature women in the NLSW, we leverage the following question that was asked in both surveys: How do you feel about a married woman with children between the ages of 6 and 12 taking a full-time job outside the home if it is absolutely necessary to make ends meet? Respondents could choose from five response options: (i) it is definitely all right; (ii) probably all right; (iii) no opinion or undecided; (iv) probably not all right; and (v) definitely not all right. We assign numerical values to these responses, with higher values corresponding to a more supportive attitude toward working women. Specifically, we assign a value of 2 to response (i), 1 to (ii), 0 to (iii), -1 to (iv), and -2 to (v). This index serves as our dependent variable.

We restrict the sample to married individuals and construct several household-level variables in both surveys. We first assess whether men are low- or high-skilled. Similar to the empirical analysis using U.S. Census data, we use occupation codes to classify men as high- or low-skilled. The NLS provides 1960 Census occupation codes, which we translate into the 1950 classification and apply the categorization suggested by [Autor and Dorn \(2013\)](#). In addition, we create an indicator for whether the wife is working. This indicator takes the value of one if she is “working” or “with job, not at work”, and zero otherwise. We also classify households as agricultural based on the individual’s U.S. Census industry code. Furthermore, we control for whether the household resides in an urban or rural area, defining rural areas as those classified as rural or as urban places with up to 25,000 people located outside of urbanized areas. To account for household composition, we additionally control for family size and the number of children living in the household. Table [D.1](#) displays the full regression results discussed in the main text in Section [5.4](#).

Table D.1: Attitudes Toward Working Women in the NLSM and NLSW

<b>A. NLSM: Support By Married Men (Ages 50-64) in 1971</b>						
	(1)	(2)	(3)	(4)	(5)	(6)
Low-skilled	-0.24*** (0.05)	-0.25*** (0.05)	-0.35*** (0.06)	-0.33*** (0.06)	-0.34*** (0.06)	-0.33*** (0.06)
Wife works		0.19*** (0.05)	0.00 (0.08)	0.00 (0.08)	0.00 (0.08)	0.01 (0.08)
Low-skilled × Wife works			0.26** (0.10)	0.25** (0.10)	0.25** (0.10)	0.25** (0.10)
Agriculture				-0.10 (0.08)		-0.10 (0.08)
Rural Area				0.01 (0.05)		0.01 (0.05)
Family Size					-0.04 (0.04)	-0.04 (0.04)
Children in HH					0.05 (0.04)	0.05 (0.04)
<i>N</i>	3,600	3,510	3,510	3,508	3,510	3,508
<b>B. NLSW: Support By Married Women (Ages 31-45) in 1967</b>						
	(1)	(2)	(3)	(4)	(5)	(6)
Low-skilled	-0.13*** (0.03)	-0.13*** (0.03)	-0.18*** (0.04)	-0.17*** (0.04)	-0.18*** (0.04)	-0.17*** (0.04)
Wife works		0.12*** (0.03)	0.04 (0.05)	0.04 (0.05)	0.04 (0.05)	0.04 (0.05)
Low-skilled × Wife works			0.12** (0.06)	0.11* (0.06)	0.12** (0.06)	0.11* (0.06)
Agriculture				-0.11 (0.09)		-0.12 (0.09)
Rural Area				0.00 (0.03)		0.00 (0.03)
Family Size					-0.02 (0.03)	-0.01 (0.03)
Children in HH					0.03 (0.03)	0.02 (0.04)
<i>N</i>	4,057	4,057	4,057	3,871	4,057	3,871

Notes: Standard errors in parentheses. \*  $p < .10$ , \*\*  $p < .05$ , \*\*\*  $p < .01$ .

## E Alternative Hypotheses: Data for Regressions

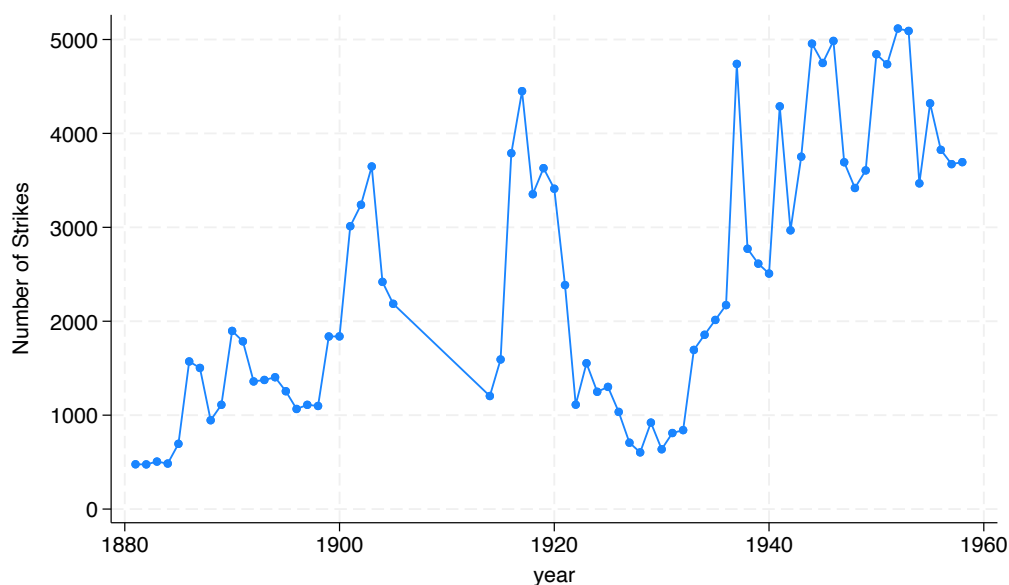


Figure E.1: Number of Strikes in the US, 1880–1958

*Notes:* We combine data from three different issues of the Monthly Labor Review, published by the US Department of Labor, to construct a time series of strikes. Between 1881 and 1915, we rely on the Monthly Labor Review from May 1941, Table 1, p. 1092. Between 1916 and 1944, we use the May 1945 issue of the Monthly Labor Review, Table 1, p. 958. Finally, data between 1945 and 1958 comes from the Monthly Labor Review in August 1959, Table E-1, p. 966.



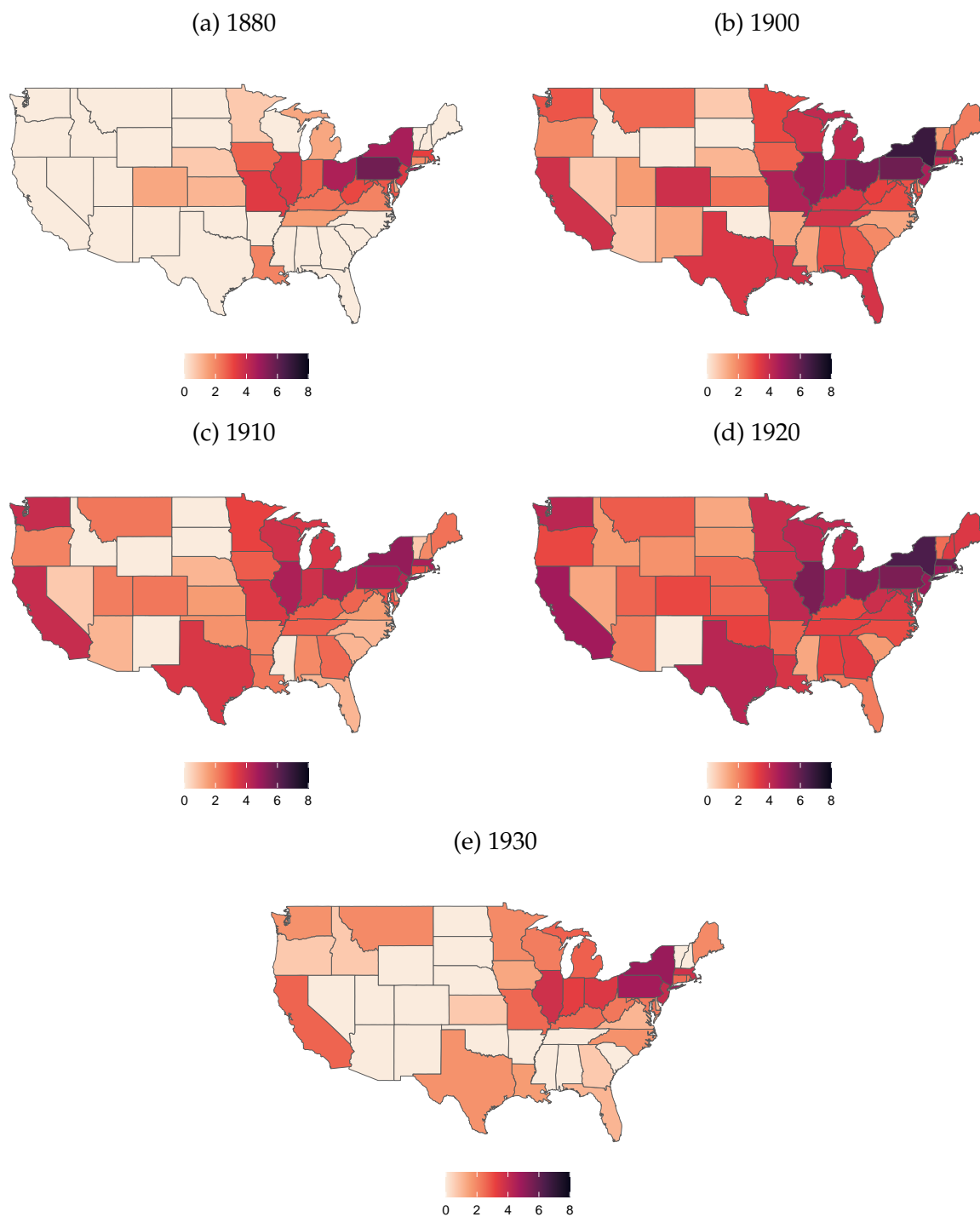


Figure E.2: Number of strikes in the USA, 1880–1930

*Notes:* Displayed is the log of the number of strikes. *Data Sources:* **1880:** Report of the 10th Census, published by the Bureau of the Census. **1900:** "Twenty-first Annual Report of the Commissioner of Labor, 1906: Strikes and Lockouts." **1910-1930:** "Strikes in the United States, 1880-1936." (**1940:** Monthly Labor Review May 141, Vol. 52. No. 5.)

# DELEGATES TO THE THIRTIETH ANNUAL CONVENTION

ORGANIZATIONS.	No. of Delegates	No. of Votes for Each Delegate	NAME AND ADDRESS OF DELEGATES.
Actors' International Union	1	11	Harry De Veaux, 8 Union Square, New York, N. Y.
Asbestos Workers' International Association, Heat, Frost, General Insulators and Bakery and Confectionery Workers, International Union	1	5	A. J. Kennedy, 3522 Paulina St., Chicago, Ill.
	2	64	Chris. Kerker, 2070 Prospect Ave., New York, N. Y.
		63	Henry Koch, 41 North York St., Paterson, N. J.
		67	Frank X. Noschang, Box 397, Albany, N. Y.
		66	Jacob Fischer, 222 East Michigan St., Indianapolis, Ind.
Barbers' International Union, Journeymen	4	66	W. E. Klapetaky, P. O. Box 43, Los Angeles, Cal.
		66	Ed. Anderson, 176 N. Union Ave., Pueblo, Col.
Bill Posters and Billers, International Alliance of	1	14	Walter Gassolo, 3210 Lawton Ave., St. Louis, Mo.
Blacksmiths, International Brotherhood of	3	34	Jas. W. Kline, 517 Monon Building, Chicago, Ill.
		33	C. N. Glover, 517 Monon Building, Chicago, Ill.
		33	Wm. J. Dougherty, 309 Breckenridge St., Buffalo, N. Y.
Boilermakers and Iron Ship Builders, Brotherhood of	3	54	Joseph A. Franklin, 7-12 Law Building, Kansas City, Kan.
		54	Joseph Flynn, 120 N. Chester St., Little Rock, Ark.
		53	Thomas H. Flynn, 20 Maple Terrace, Pittsburg, Pa.
Bookbinders, International Brotherhood of	1	78	Robert Glockling, 132 Nassau St., New York, N. Y.
		65	John F. Tobin, 246 Summer St., Boston, Mass.
		65	Michael J. Hallinan, 46 Calmar St., Brockton, Mass.
Boot and Shoe Workers' Union	5	65	Arthur B. Higgins, Rockland, Mass.
		65	Jos. J. Chatterton, 425 Walnut St., W. Lynn, Mass.
		65	Miss Margaret Kelly, 7 White St., Haverhill, Mass.
		80	Louis Kemper, Vine and Calhoun Sts., Cincinnati, Ohio.
Brewery Workmen, International Union of United	5	80	Joseph Proebstle, Vine and Calhoun Sts., Cincinnati, Ohio.
		80	John Sullivan, 23 Third Ave., New York, N. Y.
		80	Ed. F. Ward, 1117 Columbus Ave., Boston, Mass.
		80	A. J. Kugler, 71 Warner Ave., Jersey City, N. J.
Brick, Tile and Terra Cotta Workers' Alliance, International	1	38	Frank Butterworth, 56 Fifth Ave., Chicago, Ill.
Bridge and Structural Iron Workers, International Association of	3	34	Frank M. Ryan, 422 American Central Life Building, Indianapolis, Ind.
		33	John T. Butler, 116 East North St., Buffalo, N. Y.
		33	J. P. Kelly, 6 Wilkinsburg Ave., E. E. Pittsburg, Pa.
Broom and Whisk Makers' Union, International	1	6	C. T. Dolan, 3959 Lincoln Ave., Chicago, Ill.
		272	Wm. D. Huber, Carpenters' Building, Indianapolis, Ind.
		272	Frank Duffy, Carpenters' Building, Indianapolis, Ind.
Carpenters and Joiners, United Brotherhood of	7	272	W. B. Macfarlane, 337 Potomac Ave., Buffalo, N. Y.
		272	Carl Young, 135 Center Ave., Aurora, Ill.
		272	Thos. Flynn, 1225 S. Harding Ave., Chicago, Ill.
		272	Wm. J. Kelly, Union Labor Temple, Pittsburg, Pa.
		272	A. M. Swartz, 1410 Sandusky St., Allegheny, Pa.

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Figure E.3: Example of an AFL Proceeding Report in 1910

Source: Extract of the Report of the Proceedings of the Annual Meeting of the American Federation of Labor in 1910. Each report starts with a list of unions, the number of delegates, the number of votes of each delegate, as well as their names and addresses. Using the address information, the number of delegates and votes by state can be constructed for each annual meeting in a given Census year. For each union, 1 delegate per 4000 union members is assigned. The corresponding number of votes is based on the average union membership throughout the previous year as reported by September 30.

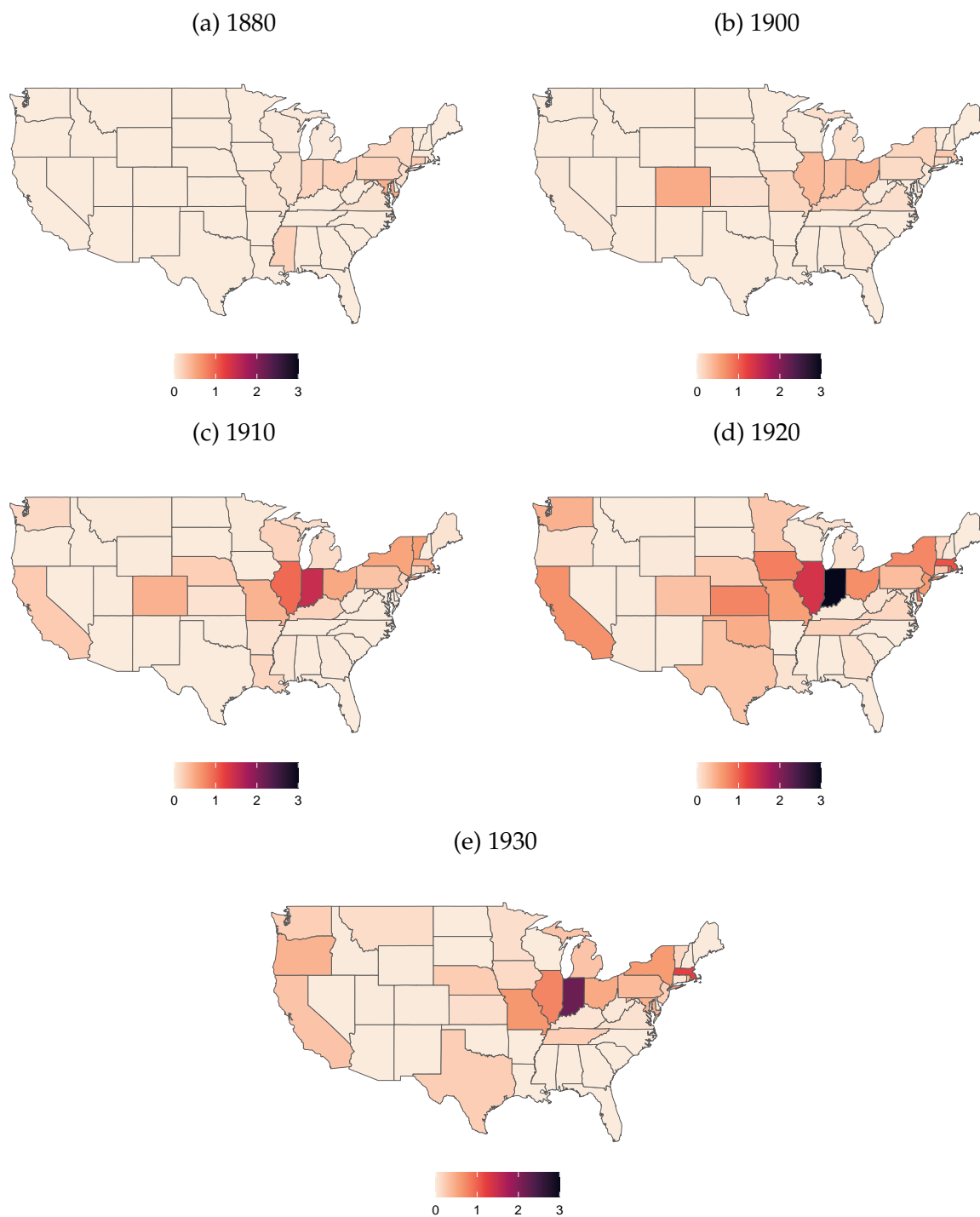


Figure E.4: Number of AFL votes (in 100s) divided by state population (in 100,000s)

*Data Sources:* The data is constructed using the number of votes for delegates by state from the Proceedings of the Annual Meetings of the AFL in 1880-1930. We normalize the number of AFL votes (in 100s) by the population (in 100,000s) in each state. The District of Columbia is dropped from the graph, but included in the empirical analysis.

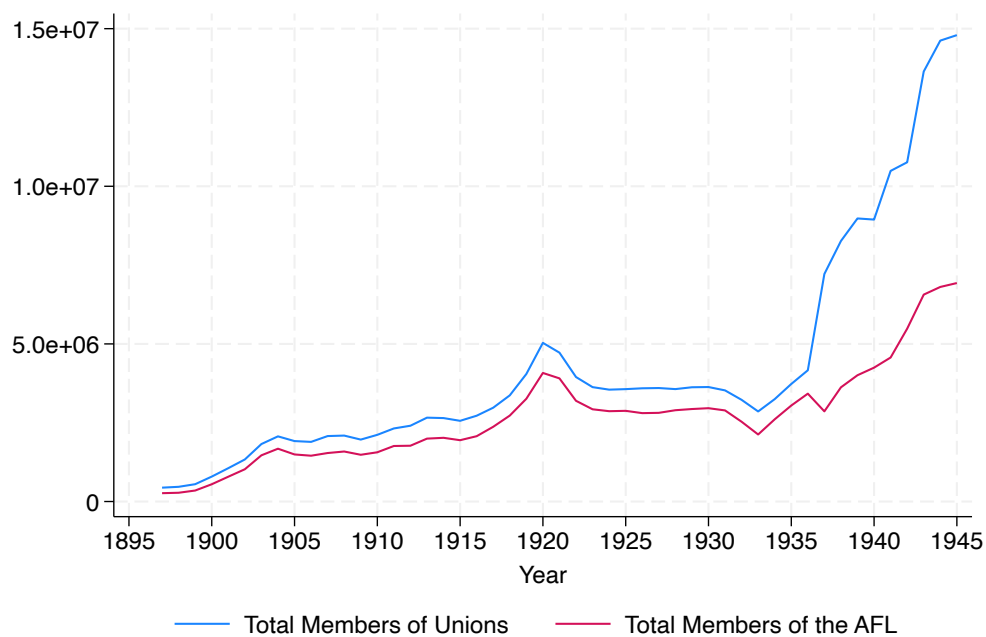


Figure E.5: Union Membership, 1897-1945

*Source:* Historical Statistics of the United States, 1789 - 1945. Chapter D. Labor Force, Wages, and Working Conditions. Series D 218-223: Union Membership: 1897 – 1945. US Census Bureau.

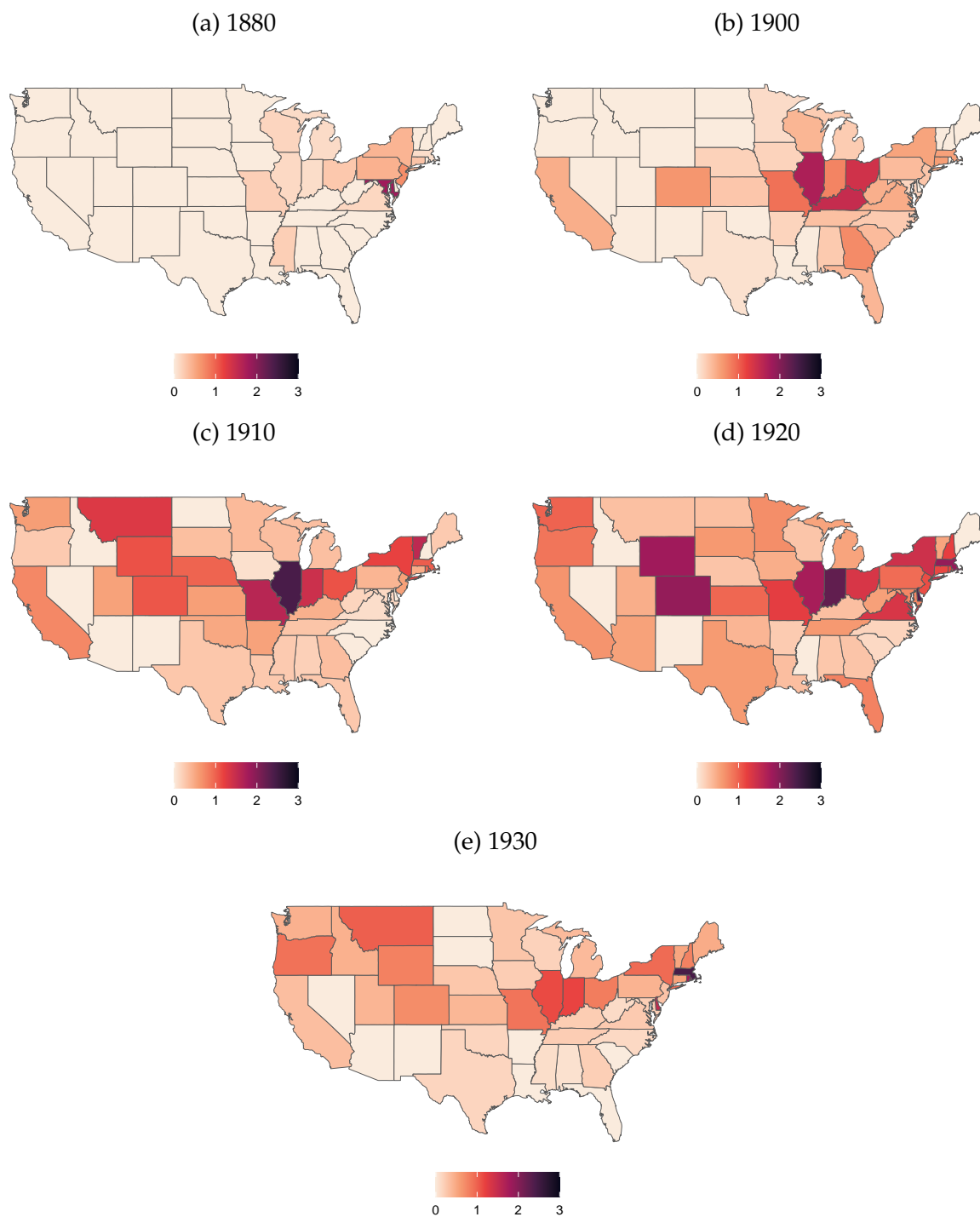


Figure E.6: Number of AFL delegates divided by state population (in 100,000s)

*Data Sources:* The data is constructed using the number of delegates at the Proceedings of the Annual Meetings of the AFL in 1880-1930. We normalize the number of AFL delegates by the population (in 100,000s) in each state. The District of Columbia is dropped from the graph, but included in the empirical analysis.

Table E.1: Resolutions for Protective Legislation in US Congress

Year	Bill No.	Congress	Chamber	Topic	Introduced by	Party	State	Short Description
1912	20575	62	House	Maximum Hours	Mr. Curley	Democratic	Massachusetts	To regulate hours of labor of women and minors
1913	8522	62	Senate	Maximum Hours	Mr. Kenyon	Republican	Iowa	To prevent the employment of females in mills, factories, or manufacturing establishments for a longer period than 8 hours
1914	298	63	Joint Resolution	Regulate Employment of Women	Mr. Rogers	Republican	Massachusetts	To amend the constitution giving congress the authority to regulate the employment of women and children under the age of 21 years
1913	223	63	Senate	Maximum Hours	Mr. Kenyon	Republican	Iowa	To prevent the employment of females in mills, factories, or manufacturing establishments for a longer period than 8 hours
1913	579	63	Senate	Minimum Wage	Mr. Chilton	Democratic	West Virginia	Providing for a minimum wage for female persons
1913	4875	63	House	Maximum Hours	Mr. Taylor	Democratic	Colorado	To prevent the employment of females in mills, factories, or manufacturing establishments for a longer period than 8 hours
1916	6872	64	House	Maximum Hours	Mr. Taylor	Democratic	Colorado	To prevent the employment of females in mills, factories, or manufacturing establishments for a longer period than 8 hours
1915	519	64	Senate	Maximum Hours	Mr. Kenyon	Republican	Iowa	To prevent the employment of females in factories for a longer period than 8 hours
1918	302	65	Joint Resolution	Regulate Employment of Women	Mr. Rogers	Republican	Massachusetts	To amend the constitution giving congress the authority to regulate the employment of women and children under the age of 21 years
1917	1706	65	House	Maximum Hours	Mr. Taylor	Democratic	Colorado	To prevent the employment of females in mills, factories, or manufacturing establishments for a longer period than 8 hours
1919	13	66	Joint Resolution	Regulate Employment of Women	Mr. Rogers	Republican	Massachusetts	To amend the constitution giving congress the authority to regulate the employment of women and children under the age of 21 years
1922	407	67	Senate Joint Resolution	Regulate Employment of Women	Mr. Foster	Republican	Ohio	To amend the constitution giving congress the authority to regulate or prohibit the employment of women and children
1922	256	67	Senate Joint Resolution	Regulate Employment of Women	Mr. Lodge	Republican	Massachusetts	To amend the constitution giving congress the authority to regulate or prohibit the employment of women and children
1921	28	67	House Joint Resolution	Regulate Employment of Women	Mr. Rogers	Republican	Massachusetts	To amend the constitution giving congress the authority to regulate the employment of women
1922	341	67	Joint Resolution	Regulate Employment of Women	Mr. Raker	Democratic	California	Proposing amendment to the Constitution respecting employment of women and children under 18 years of age
1923	32	68	Joint Resolution	Regulate Employment of Women	Mr. Rogers	Republican	Massachusetts	Proposing amendment to the Constitution relative to employment of women and children under 18 years of age
1923	90	68	House Joint Resolution	Regulate Employment of Women	Mr. Lozier	Democratic	Missouri	Proposing amendment to the Constitution relating to child labor and hours and conditions of labor for women and children
1923	83	68	House Joint Resolution	Maximum Hours	Mr. Greene	Republican	Massachusetts	Proposing amendment to the Constitution relative to working hours of women and children
1923	36	68	Senate Joint Resolution	Maximum Hours	Mr. Lodge	Republican	Massachusetts	Proposing amendment to the Constitution relative to working hours of women and children
1923	15	68	House Joint Resolution	Regulate Employment of Women	Mr. Raker	Democratic	California	Proposing amendment to the Constitution relative to employment of women and children under 18 years of age
1924	102	68	House Joint Resolution	Regulate Employment of Women	Mr. Taylor	Democratic	Colorado	Proposing amendment to the Constitution relative to labor of women and children
1924	155	68	House Joint Resolution	Regulate Employment of Women	Mr. Rogers	Democratic	New Hampshire	Proposing amendment to the Constitution relative to employment of women and children under 18 years of age
1925	14	69	Senate Joint Resolution	Minimum Wage	Mr. Johnson	Republican	California	Proposing amendment to the Constitution relative to minimum wages for women and minors; to the Committee on the Judiciary
1936	618	74	House Joint Resolution	Minimum Wage	Mr. Fish	Republican	New York	Joint resolution for amendment to the Constitution to empower each state to fix minimum rates of wages of women and minors employed in industry
1937	99	75	House Joint Resolution	Regulate Employment of Women	Mr. Treadway	Republican	Massachusetts	Proposing amendment to the Constitution relative to labor of women and children
1937	30	75	House Joint Resolution	Minimum Wage	Mr. Fish	Republican	New York	Joint resolution for amendment to the Constitution to empower each state to fix minimum rates of wages of women and minors employed in industry

Data Sources: US Congress Records as well as US Congress Index Records 1870-1940, National Archives of the United States.