

Women's rights and women's labor: Married women's property laws and labor force participation, 1860-1900

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Introduction

In the five decades after the Civil War, wives' rights to own property, retain their own earnings, and do business on their own account separate from their husbands, were extended throughout most of the American states. While there has been substantial research into the motivations for these acts, and their legal consequences, there is no published research on how the laws affected married women's overall participation in the labor market, or more specifically their operation of their own businesses. In this paper I use data from the IPUMS samples of the American census to estimate the effects of changes in married women's property laws on the extent of married women's involvement in gainful employment. Individual-level census data from the IPUMS allows me to control for individual and family factors that affect wives' decisions to work, while differences in the timing of legal change across the states permits identification of the effects of legal change.

The absolute effects of changes in property rights were quite small. Between 1860 and 1900—when the majority of laws were passed—the overall level of married women's labor force participation fluctuated from 4.2% to 4.6% in 1880, and back down to 4.1% in 1900. Within individual states, the largest increase in married women's labor force participation was in the District of Columbia, where labor force participation for married women advanced from 15.5% in 1860 to 28.6% in 1900. Among non-southern states, the largest increase over forty years was in the Dakota Territory where just one in sixty married women in the new territory had a gainful occupation in 1870, but by 1900 one in twelve did; an increase of just under eight percentage points in thirty years. This was still a small increase compared to the change in labor force participation between 1930 and 1940, and the rapid post-World War II increases in married women's labor force participation.

The organization of the paper is as follows; I first summarize the history of married women's property law reform in the United States, and the recent literature by historians and economists that examines the consequences of property law reform. After introducing the data that I use in the remainder of the paper, I summarize the changes in women's labor force participation conditioned only on the passage of property law reform in the preceding decade. I then estimate the effects of the married women's property laws on labor force participation using a “difference-in-differences” estimate; that compares the change over time in married women's

labor force participation between states that did, or did not, enact new married women's property legislation in the previous decade. I distinguish between the effects of three different kinds of married women's property law reform;

1. Title to assets and estates, referred to as "property laws"
2. Title to earnings from labor and capital, referred to as earnings laws
3. Ability to own and operate businesses without the legal requirement of a husband's permission or oversight, referred to as "sole trader laws"

After holding individual and state-specific factors constant, the effects of change in married women's property and earnings legislation on married women's labor force participation was trivially small and negative for white women. Apparently large effects of the introduction of earnings laws on black women's labor force participation are somewhat spurious and due to the low number of black women in some states shortly before passage of earnings law reform. Reform of property laws was not sufficient for increasing married women's labor supply in the late nineteenth century. While it is still possible reform of property laws was necessary for later increases in married women's labor force participation, the variety of other social and economic changes between the passage of property acts and more rapid increases in married women's labor force participation, make it difficult to detect any long-run effects.

Background

Laws determining title to property within marriage are the responsibility of state legislatures and courts in the United States. With the exception of states in the south and west—most of which inherited their civil law traditions from French or Spanish colonial control—the laws of property within marriage in the United States were largely derived from the English common law tradition of coverture. The civil law states—Arizona, California, Idaho, Louisiana, Nevada, New Mexico, Texas and Washington—had a community property system.¹ In practice, however, the operation and reform of the married women's property laws was not substantially different in community property and common law states, according to authors who have studied the acts across the different states.² The doctrine of coverture provided that in marriage a

¹ Donna Clare Schuele, "a Robbery to the Wife': Culture, Gender and Marital Property in California Law and Politics, 1850-1890" (PhD, University of California Berkeley, 1999), 447.

² Kathleen Elizabeth Lazarou, "Concealed under Petticoats: Married Women's Property and the Law of Texas, 1840-1913" (PhD, Rice University, 1980), 9.

woman's property became the property of her husband. Blackstone's influential *Commentaries on the Laws of England* explained that during coverture

those chattels, which belonged formerly to the wife, are by act of law vested in the husband, with the same degree of property and with the same powers, as the wife, when sole, had over them. This depends entirely on the notion of an unity of person between the husband and wife; it being held that they are one person in law ... the very being and existence of the woman is suspended during the coverture, or entirely merged and incorporated in that of the husband. And hence it follows, that whatever personal property belonged to the wife, before marriage, is by marriage absolutely vested in the husband.³

Coverture was modified in practice by the parallel tradition of dower that guaranteed wives a one-third share of their husband's property upon his death. Women's property could also be held in trust to shelter it from passing to the husband under coverture upon marriage. The purpose of dower and trusts was not to provide women with opportunities for equal control of property, but to insure them against financial catastrophe if their husband died or could not fulfil financial obligations to creditors.⁴ Trusts were generally operated to permit married women continuing ownership of property that had bequeathed to them before marriage. Thus, as well as protecting a married woman's limited rights in her property, trusts were also a way of protecting the property of a woman's patrilineal family from the mismanagement of her husband. The crucial distinction here is between ownership and control. Trusts protected a married woman's ownership of her property, but generally permitted her husband to control that—property. Moreover, both common and statute law gave the husband rights to the earnings—rents, interest, and dividends, for example—that accrued from a wife's property. The common law contained further disincentives for women to undertake paid labor outside the home. Until the late 1850s no states gave women explicit title to their earnings. Furthermore, the common law was typically interpreted to give a husband sole claim to his wife's household labor.⁵ In the courts, this interpretation of the law meant that if women were injured by a third party, the woman could

³ William Blackstone, *Commentaries on the Laws of England*, (London, 1765-1779), Book II, Chapter 29, "Of Title by Succession, Marriage, and Judgment." Available: <http://www.yale.edu/lawweb/avalon/blackstone/bk2ch29.htm>. [Accessed: 2 May 2006].

⁴ Kermit Hall, *The Magic Mirror: Law in American History* (New York: Oxford University Press, 1989), 157-59.

⁵ Reva B. Siegel, "Home as Work: The First Woman's Rights Claims Concerning Wives' Household Labor, 1850-1880," *Yale Law Journal* 103, no. 5 (1994).

only claim for pain and suffering, while their husbands could claim for the lost value of household labor.⁶

Outline of reforms

Married women's property law reform in the United States passed sequentially through at least three stages.⁷ The initial wave of reforms granted married women control over their separate estates and property, with the first of these laws being passed in Mississippi in 1839.⁸ Some of the initial acts were stimulated by the financial panic of 1837.⁹ In the remainder of this paper, I refer to these acts as the "property acts," as they dealt with the control and ownership of assets. The next wave of reform—beginning in Maine in 1857—allowed married women to exercise some control over their earnings in the labor market. Finally, states introduced laws that allowed married women to operate as sole traders, independent of their husbands (Table 1). While Khan identifies three classes of property law reforms that may have had an impact on women's economic activity, Joan Hoff has identified six distinct types of property law that affected nineteenth-century married women:

- Debt-free estates
- Separate estates
- Wills
- Personal estate access
- *Feme sole* status (sole traders)
- Earnings acts.¹⁰

The laws which I refer to here as the "property" acts are the same acts Hoff distinguishes as dealing with debt-free estates and separate estates. Respectively, these pieces of legislation enabled women to inherit property unencumbered by any debts their husbands might have had, and to hold separate title to property. While these property acts gave women *title* to their estates

⁶ Barbara Y. Welke, *Recasting American Liberty: Gender, Race, Law, and the Railroad Revolution, 1865-1920* (New York: Cambridge University Press, 2001), 133.

⁷ B. Zorina Khan, "Married Women's Property Laws and Female Commercial Activity: Evidence from United States Patent Records, 1790-1895," *Journal of Economic History* 56, no. 2 (1996): 362.

⁸ Sandra Moncrief, "The Mississippi Married Women's Property Act of 1839," *Journal of Mississippi History* 47, no. 2 (1985): 110-25.

⁹ Richard Chused, "Late Nineteenth Century Married Women's Property Law: Reception of the Early Married Women's Property Acts by Courts and Legislatures," *American Journal of Legal History* 29, no. 1 (1985): 4.

¹⁰ Joan Hoff, *Law, Gender and Injustice: A Legal History of U.S. Women* (New York: New York University Press, 1991), 128.

within marriage, some legislation did not give *women* control over the property.¹¹ Thus, while a woman may have continued to own land (for example), her husband could decide what uses the land would be put to, and who they might lease it to. Legislation reforming married women's ability to will generally made the change from a regime where women could not will property without their husband's consent to a regime where married women could will their separate property without their husband's involvement. *Feme sole* status permitted women to set up businesses, and trade, independently. This was the legal basis for the limited extent of female entrepreneurship in late nineteenth-century America. Finally, the earnings acts meant to give women title to any earnings from labor, business or rents from property. While the early historiography of the property acts largely focused on the property and estate acts, recent scholarship has emphasised that the most potentially significant legislation were the earnings acts. This is borne out by the mid-nineteenth-century census enumeration of wealth. In 1850, just one third of one percent of white married women reported any real estate wealth. While this figure advanced to 0.77 percent in 1860, and 1.45 percent in 1870, the proportion of white married women reporting wealth was small. In 1860 and 1870, a broader measure of wealth—personal property—was also enumerated. White married women's wealth holding on this measure advanced from 0.92 percent in 1860 to 1.58 percent in 1870. By contrast, even in 1860 and 1870 at least 4 percent of married women were working outside the home—more than twice the proportion of women who said they held even a little property. It is likely that this comparison *understates* the difference between wealth holding by women and labor force participation. On the one side, it is nearly universally agreed that the nineteenth century American census under-counted women's work.¹² Conversely, census estimates of wealth were quite accurate, or somewhat overstated.¹³

The motivation of male legislators for introducing the married women's property acts was decidedly *not* to strike a blow for female equality. While reform of property law was an object of nineteenth-century feminists, in general their lobbying efforts were not the primary reason for the

¹¹ Sara L. Zeigler, "Wifely Duties: Marriage, Labor and the Common Law in Nineteenth-Century America," *Social Science History* 20, no. 1 (1996): 64, 72-3.

¹² Susan B. Carter and Richard Sutch, "Fixing the Facts: Editing of the 1880 U.S. Census of Occupations with Implications for Long-Term Labor-Force Trends and the Sociology of Official Statistics," *Historical Methods* 29, no. 1 (1996), Nancy Folbre and M. Abel, "Women's Work and Women's Households: Gender Bias in the U.S. Census," *Social Research* 56 (1989).

¹³ Joshua L. Rosenbloom and Gregory W. Stutes. "Reexamining the distribution of wealth in 1870" University of Kansas. Working papers series in theoretical and applied economics. Number 200501. January 25, 2005.

passage of laws. The initial wave of reforms, the property laws that gave married women title to their separate property and estates, were motivated in part by the periodic financial crises of the nineteenth-century American economy. By securing married women's continuing title to assets they brought with them into a marriage, married women had some possibility of financial fallback if their husband was to die, desert or divorce them. The public interest in protecting married women's property from the claims of their husband's creditor was to minimize calls by widows and deserted women on public assistance. In short, married women's property reform was a form of welfare policy.¹⁴

Whereas the British Married Women's Property acts of 1870 and 1882 occasioned a great deal of interested comment in the press, pamphlets and broadsides of the time, a striking aspect of the American reforms was the near-complete lack of interest by the press and contemporary commentators. One index of the greater public awareness of the British Acts may be Oscar Wilde's reference to the Acts in *An Ideal Husband*, where Mrs Allonby argues that "All men are married women's property. That is the only true definition of what married women's property really is. But we don't belong to any one."¹⁵ When legislation appears in the theater it is almost certainly well known. By contrast, the American press barely covered the numerous reforms to married women's property acts in the various states. The *New York Times*, for example, barely covered the passage of New York earnings act in 1860, reprinting the text of the act but providing no report of the debate, commentary, or letters.¹⁶ While historians view the New York earnings act of 1860 as a model for later acts in other states, it was not regarded as an important piece of legislation by contemporaries. Indeed, writing in 1891 the American feminists Annie Meyer and Julia Howe commented about the reform of property law that "the emancipation of married women has been gradually, *silently*, successfully accomplished [emphasis added]."¹⁷

Historiography of consequences

Despite the silence of contemporaries, historians since the 1970s have taken with enthusiasm to studying the 19th century married women's property acts in both the United States

¹⁴ Lazarou, "Concealed under Petticoats: Married Women's Property and the Law of Texas, 1840-1913", 13.

¹⁵ Oscar Wilde, *An Ideal Husband: A Woman of No Importance*, (Boni & Liveright, New York, 1919): 153.

¹⁶ "Rights of Married Women: An Act Concerning the Rights and Liabilities of Husband and Wife," *New York Times*. March 21 1860, p.5.

¹⁷ Annie Nathan Meyer and Julia Ward Howe, eds., *Woman's Work in America* (New York: Henry Holt, 1891), 447.

and Great Britain. The literature has grown sufficiently to encompass both synthesis¹⁸ and recent revision.¹⁹ Among historians the general consensus is that the married women's property acts had a negligible effect on women's economic status and behavior. For example, Norma Basch writes that "the married women's property acts failed to make ... a significant alteration [in the patriarchal family] One reason for the failure of the statutes was the common law doctrine of marital unity."²⁰ Basch is not alone in emphasizing that while the text of the acts could have been construed liberally, they were largely interpreted in the most conservative manner possible. Sandra vanBurkleo argues that it took sixty years—until 1908—for the New York Court to acknowledge that the legislature may actually have intended to give married women control over property and earnings. In the interim, they ruled that married women " may elect to labor on her own account and thereby entitle herself to her earnings, but in the absence of such an election The husband's common law rights to her earnings remains unaffected." In other words, if a woman did not explicitly state that she would retain control of her earnings, it was presumed that her husband did. In 1895, the New York court hardened this view into the notion that by getting married women assented to their husband's claim on their labor, and gave up their title to earnings.²¹ What was true for New York was also true in other jurisdictions. Zeigler has argued that the jurisprudence of the married women's property acts was remarkably uniform across the United States.²²

By contrast, economic historian Zorina Khan argues that the property acts had a substantial act on women's inventive activity. More broadly, whereas legal and women's historians have credited the acts with little to no consequences, Khan argues that women *did* respond to the changes in incentives provided by the acts. Economic behavior was responsive to legislation. Specifically, she finds that states that reformed married women's property acts saw more rapid increases in women's filing of patents, and had a higher absolute level of patenting by women even after controlling for state characteristics such as the level of industrialization and

¹⁸ Carole Shammas, "Re-Assessing the Married Women's Property Acts," *Journal of Women's History* 6, no. 1 (1994).

¹⁹ Rick Geddes and Dean Lueck, "The Gains from Self-Ownership and the Expansion of Women's Rights," *American Economic Review* 92, no. 4 (2002), Amy Lydia Gignesi, "Relinquishing Control: The Married Women's Property Acts in Mid-Nineteenth Century America" (Dissertation/Thesis, Am. U., 2005).

²⁰ Norma Basch, "Invisible Women: The Legal Fiction of Marital Unity in Nineteenth-Century America," *Feminist Studies* 5 (1979): 346-47.

²¹ Sandra F. Vanburkleo. *Belonging to the World*. (New York: Oxford University Press, 2001): 134-135.

²² Sara L. Zeigler, "Uniformity and Conformity: Regionalism and the Adjudication of the Married Women's Property Acts," *Polity* 28, no. 4 (1996): 467-95.

urbanization. While Khan's paper is the only scholarly work on the economic consequences of the nineteenth-century American property acts, a body of recent work on the British Married Women's Property Act also finds that women's behavior was responsive to changes in legislation. Combs finds that "women shifted the majority of their wealth-holding into forms of property that they could legally control during marriage."²³ Shammass' 1994 summary of the research to that date also suggested that wealth allocation shifted towards women with the passage of the property acts.²⁴ Thus, on some quite specific measures of economic activity there is evidence that people's behavior changed in response to the acts, despite the lack of media attention to the American property law reforms.

Data

To estimate the effect of state legal changes on married women's propensity to be in the labor market I use data from the 1860, 1870, 1880 and 1900 United States censuses, available in the IPUMS.²⁵ Women's occupations were not enumerated by the American census until 1860, making it impossible to estimate the effect of changes in laws during the 1850s. For consistency with previous research in economic history, I use Khan's list of legal changes, and the dating of the legislation by Joan Hoff that has is more widely cited by scholars in gender and legal history (Table 1). Although Hoff and Khan disagree on the dates of passage of legislation in many states, the substantive results I obtain are not sensitive to the assignment of particular states to particular decades. This serves as some form of check on the robustness of the underlying results. The extent of Hoff and Khan's disagreement on when states passed *effective* legislation can be seen in Table 1. In summary, they agree on the dates of passage of sole trader acts in just 20 states; on the passage of earnings acts in 29 states, and on the passage of property acts in 25 states.²⁶ Further disagreement on the dating of the property acts can be seen in Geddes and Lueck's 2002 *AER* article on the state-level determinants of the dates of passage of married women's property

²³ Mary Beth Combs, "A Measure of Legal Independence": The 1870 Married Women's Property Act and the Portfolio Allocations of British Wives / Combs, Mary Beth," *Journal of Economic History* 65, no. 4 (2005). Mary Beth Combs, "Wives and Household Wealth: The Impact of the 1870 British Married Women's Property Act on Wealth-Holding and Share of Household Resources," *Continuity and Change* 19, no. 1 (2004).

²⁴ Shammass, "Re-Assessing the Married Women's Property Acts," 20-21.

²⁵ Steven Ruggles et al., *Integrated Public Use Microdata Series: Version 3.0* ([Machine-readable database] Minneapolis, MN: Minnesota Population Center [producer and distributor], 2004).

²⁶ Khan, "Married Women's Property Laws and Female Commercial Activity: Evidence from United States Patent Records, 1790-1895," 363.

law reform.²⁷ The disagreement among scholars about the effective dates of passage is in some ways illustrative of the process of property law reform. It also perhaps confirms the recent legal-historical scholarship of Zeigler who argues *inter alia* that the acts were not widely known by the public, and that state legislatures had to revise legislation to make their intentions clear to judges who interpreted the reforms more conservatively than legislatures intended.

Legal change and labor force participation

Reform of the married women's property laws was a national trend, yet certain regional patterns are evident (Table 1). States in the Northeast, Midwest, and West were more likely to have passed legislation at a given date than states in the south. Midwestern and Western states that came into the union during the nineteenth century sometimes incorporated protection for married women's property rights in their state constitutions.²⁸ While states in the South were less likely to have passed married women reforms, overall married women labor force participation rates in the South were somewhat higher. This is entirely attributable to the greater proportion of black women in the Southern population and labor force. To disentangle the effects of race and legal reform, I estimate the changes in labor force participation conditional on legal reform separately for black and white women.

The dates of passage of married women's property laws give a somewhat optimistic picture of the number of married women affected by the legislation. Many of the Midwestern and Western states that were in the vanguard of legal reform had small populations, and the Eastern and Southern states that lagged somewhat behind in passing legal reforms had more married women living there (Table 2). The critical decade for the earnings acts, in particular, was the 1870s when the proportion of women covered by earnings acts more than doubled. Many of these acts were passed in conjunction with, or influenced by, the efforts of radical Republicans during Reconstruction.²⁹

²⁷ Geddes and Lueck, "The Gains from Self-Ownership and the Expansion of Women's Rights."

²⁸ See, for example: Report of the debates and proceedings of the Convention for the revision of the constitution of the state of Indiana. 1850. (Indianapolis, (IN). A. H. Brown, printer to the Convention, 1850-51). Available at *Making of America*. <http://www.hti.umich.edu/m/moagrp/>. [Accessed 23 April 2006]

²⁹ Amy Dru Stanley, "Conjugal Bonds and Wage Labor: Rights of Contract in the Age of Emancipation," *Journal of American History* 75, no. 2 (1988), Amy Dru Stanley, *From Bondage to Contract: Wage Labor Marriage and the Market in the Age of Slave Emancipation, Marriage* (1998).

Looking then at how labor force participation varied by the laws in effect at a particular census, the influence of differences in the racial composition of the labor force become clear. Labor force participation was actually higher in states that did not have earnings or property laws (Table 3). When we examine white married women alone, the differences between legal regimes narrow significantly; reflecting the overall low level of white women's labor force participation. No consistent conclusion on the influence of legislation can be taken from this table. Turning to simple comparisons of changes in labor force participation and changes in earnings legislation, there is again no clear impact of the legislation for whites. The overall level of labor force participation is low, and the differences between states are small. Black labor force participation was somewhat higher in the south, where there was less likely to be married women's property law reform, giving the impression that legislation actually had a negative effect on black women's participation in paid work.

1. *Difference-in-differences estimates*

To make sense of these conflicting influences on married women's labor force participation I estimate a probit model of women's labor force participation that controls for individual and household factors affecting a woman's decision to work, state legal reform measures, and the extent of urbanization and manufacturing within a state to reflect both the possibilities for women's work outside the home, and the influence of the urbanization and industry on legal reform itself.³⁰

Setting other variables equal to their mean, I then estimate the probability for different years (1870, 1880, 1900) and different legal regimes (no earnings law, earnings law in effect in both time periods, and earnings law introduced). Using these predicted probabilities I then compute the difference over time in married women's labor force participation between states that had no earnings laws, and states that introduced earnings laws. This is the "difference in differences." For white women I find small positive to negative effects on labor force participation of the introduction of earnings laws. None of the results are statistically significant, leaving the conclusion that the impact of the property laws on white married women's labor force

³⁰ Geddes and Lueck, "The Gains from Self-Ownership and the Expansion of Women's Rights."

participation was trivial if there was any effect at all. The results are substantially similar for property and estate laws.

For black women, the magnitude of the effect of legislation is substantially greater. During the 1870s the introduction of earnings laws is accompanied by a substantial decrease in labor force participation, on the order of eleven percentage points. However in the next two decades this effect is more than reversed with a twenty four percentage point increase in labor force participation conditional on the introduction of earnings legislation. However, this result is entirely due to the passage of legislation in four states with tiny black populations—Nebraska, Oregon, Utah, and Washington. While there was an increase in black married women's labor force participation in those states consistent with the estimated effect, it is not clear that this result can be generalized to other states. It is quite unlikely that the assumption that nothing else was affecting labor force participation holds in this case. If we compare states that had laws before 1880 with states that continued to have no laws, the estimated effect for black women is similar to that for white women: essentially zero.

Despite the disagreement about the dates of passage of the earnings laws, the difference in difference estimates are substantially similar when using the dates given by Hoff or the dates given by Khan. Using both sets of dates, there is an apparently large impact of introducing earnings laws for non-farm black women in the last two decades of the nineteenth century. However, in both cases the estimate for 1880 is based on a tiny number of non-farm black women living in western and mountain states. By 1900, while there are somewhat more non-farm black women in these states, and the estimates of labor force participation are not subject to huge standard errors, the comparison is still affected by the near total absence of black women from these states in the first period. Comparing the change in labor force participation between states that had laws prior to 1880, with the change in labor force participation in states that had no laws until after 1900—these states having much larger black populations—the effect of having an earnings law is insignificantly different from zero.

2. Difference in differences estimates of sole-trader laws

The impact of introducing earnings laws on married women's labor force participation was small. Given the limitations of the data—lacking information on family earnings, for example—and the robustness of the results to different estimates of when legislation was passed

in particular states, it appears that the most concise preliminary conclusion is that the earnings acts had no effect on married women's labor force participation in nineteenth century America. At first glance, this appears to contradict the conclusions reached by other authors that women and families were sensitive to legal change; shifting their allocations of assets in response to legislation, and increasing their involvement in patenting in response to the passage of property laws. However, given the otherwise strong cultural and social restrictions on women's entry into the labor market, it is less surprising that the mere passage of these laws was not enough to bring married women into the labor market. What the research by Khan, Combs, and earlier authors does show is that women and families were responsive to quite specific legal changes. Earnings laws, while plausibly the most likely to affect overall labor force participation by women, were quite general. It is more plausible that given existing a woman's existing participation in the labor market that she would adjust her activities at the intensive margin, working more hours (which we cannot detect with much nineteenth century data), or perhaps adjusting occupational choices, or entrepreneurial choices. It is to this question, of whether married women in states that introduced sole trader legislation were more likely to become sole traders that I now turn.

Data and methodology

Sole traders cannot be definitively identified in the nineteenth-century American census. The first census to identify whether a worker was an employee, employed workers, or worked on their own account was the 1910 census, which introduced this classification of "class of worker" and was retained in the 1920 and 1930 censuses as well. The correlates of a married woman in the labor force being an employer or working on their own account were very stable in 1910 and 1920. Women reporting an occupation as farmers were more than 70 percentage points more likely to be employers or sole traders than the average married women in the labor force (Table 6) . Women who had an occupation classified as managerial³¹ were more than 40 percentage points more likely to be sole traders than the average married woman. Introduction of other covariates including husband's occupation and industry does not alter these results substantially.

Using the co-efficients from 1910 and 1920 I then generate predicted probabilities for being an employer or working on own account for married women in 1870, 1880 and 1900. I

³¹ Major group 2 in the IPUMS OCC1950 classification scheme.
<http://www.ipums.umn.edu/usa/pwork/occ1950a.html>

then use these predicted probabilities as the dependent variable in a Heckman model, conditional on women being in the labor force. In the second stage regression I am particularly interested in the co-efficients on the dummy variables for the passage of sole trade laws in the state between 1870 and 1880, or between 1880 and 1900. The selection equation for labor force participation does not contain dummies for reform of sole trade laws. Using this model, I then simulate the predicted probability a married woman in the labor force will be a soletrader in the different legal regimes—states with a sole trade law before the first period, states passing a law in the period, and states with no sole-trade law until later. As in the previous section I use the dates of passage given by both Khan and Hoff.

Results

While Hoff and Khan disagree on the dates of passage of effective sole-trader legislation for three-fifths of the states (Table 1), the variation in dates of passage has little substantive impact on the results. As with earnings laws, the passage of sole-trader laws had little conclusive effect on married women's predicted propensity to be sole-traders. In the Heckman models, the co-efficients on the dummies for passage of sole-trade laws are of opposite signs (Table 7.1), or differ by an order of magnitude (Table 7.2) depending on whether the dates of passage used are obtained from Hoff or Khan. The co-efficients translate into minor marginal effects of the laws, with the passage of sole-trader legislation altering predicted probabilities of participation (with all other variables set to their mean values) by less than four percentage points, relative to baseline expected probabilities of being a soletrader around 30 per cent.

Difference-in-differences estimates give more consistent conclusions, despite the divergent dates of passage for many states. As with the earnings laws, the estimated impacts of sole-trader legislation are clustered around zero, with estimates of opposite sign for different decades and different dates of passage. One result consistent across both sets of dates is a small *decline* in white married women's predicted propensity to be sole-traders between 1880 and 1900 after passage of sole-trade legislation. Hoff and Khan actually largely agree on which states passed sole trader legislation for married women in this period—agreeing on Nebraska, Idaho, Washington, West Virginia, Louisiana, and Utah. Hoff includes the Dakotas in this group, and Khan includes Vermont. It is likely that the explanation for declines in propensity to be sole-traders in this period, if in fact real, are unrelated to the passage of legislation. As more married

women entered the labor market, the marginal woman was probably less likely than the average woman already in the labor market, to become a sole-trader.

Conclusion

Historians have argued that the nineteenth century married women's property acts had little effect on married women's social status at the time. However, economic historians have found that in some specific areas of economic behavior married women, and their husbands, did alter their behavior in response to the passage of legislation. In this paper I find evidence consistent with the claims of historians that the immediate impact of the married women's property acts was slight. Women's participation in market work did not change substantially with the passage of the property acts, and may in fact have declined slightly in some states after the passage of legislation. Married women who were already in the labor market did not appear to have substantially altered their choice between sole-trade and employee occupations in response to passage of sole-trader legislation in different states. In short, the married women's property acts had little immediate impact on the overall levels of labor force participation by married women. The married women's property acts were perhaps a necessary, but not sufficient, precondition for married women's entry into paid work.

Table 1. Passage of married women's property laws

	State	Property		Earnings		Soletrade		
		<i>Hoff</i>	<i>Khan</i>	<i>Hoff</i>	<i>Khan</i>	<i>Hoff</i>	<i>Khan</i>	
<i>Northeast</i>	Connecticut	1849	1856	-	1877	-	1877	
	Maine	1844	1844	1860	1857	1828	1844	
	Massachusetts	1845	1845	1855	1874	1846	1860	
	New Hampshire	1850	1867	-	-	1840	1876	
	New Jersey	1852	1852	1878	1874	-	1874	
	New York	1848	1845	1860	1860	-	1860	
	Pennsylvania	1848	1848	1872	1872	-	-	
	Rhode Island	1848	1848	-	1874	1841	-	
	Vermont	1867	1881	1866	-	1846	1881	
<i>Midwest</i>	Illinois	1861	1861	1869	1861	1874	1874	
	Indiana	1879	1879	1879	1879	-	-	
	Iowa	-	1873	1870	1870	1840	1873	
	Kansas	1868	1868	1868	1868	-	1868	
	Michigan	1855	1855	-	-	-	-	
	Minnesota	1869	1869	-	-	1874	1874	
	Missouri	1849	1879	-	1879	-	-	
	Nebraska	1889	1881	-	1881	1882	1881	
	North Dakota	1899	1877	-	1877	1899	1877	
	Ohio	1861	1861	1871	1861	1811	-	
	South Dakota	1889	1877	1887	1877	1889	1877	
	Wisconsin	1850	1850	-	1872	-	-	
	<i>South</i>	Alabama	1848	1867	-	-	1846	-
		Arkansas	1848	1873	1873	1873	1868	1868
		Delaware	1865	1875	1873	1873	-	-
District of Columbia		-	1869	-	-	-	1869	
Florida		1855	-	-	-	-	-	
Georgia		1866	1873	1870	-	-	-	
Kentucky		-	-	1873	1873	1843	1873	
Louisiana		-	-	-	-	1894	1894	
Maryland		1853	1860	1860	1860	-	1860	
Mississippi		1873	1871	1871	1871	-	1871	
North Carolina		1850	1868	1868	1873	1828	-	
Oklahoma		-	-	-	-	-	-	
South Carolina		1870	1870	1870	-	1868	1870	
Tennessee		1870	1870	-	-	1850	-	
Texas		1845	-	-	-	1845	-	
Virginia	1877	1878	-	-	-	-		
West Virginia	1866	1868	1891	1893	1891	1893		
<i>West</i>	Arizona	-	1871	-	-	-	1871	
	California	-	1872	-	1872	1874	1872	
	Colorado	1876	1874	1876	1874	1876	1874	
	Idaho	1887	1887	-	-	1887	1887	
	Montana	1889	1872	1889	1874	1889	1874	
	Nevada	1873	1873	-	1873	1867	1873	
	New Mexico	-	-	-	-	-	-	
	Oregon	-	-	1880	1880	1859	1880	
	Utah	1895	1895	1895	1895	1895	1895	
	Washington	1888	1889	1889	1889	1889	1889	
Wyoming	1876	1876	-	1876	1882	1876		

Table 2: Proportion of women covered by property acts, 1850-1900

Year	All married women			White married women			Black married women*		
	Earnings	Property	Soletrade	Earnings	Property	Soletrade	Earnings	Property	Soletrade
Khan (1996) dates									
1850	0.000	0.371	0.030	0.000	0.300	0.010	0.000	0.347	0.007
1860	0.024	0.443	0.024	0.024	0.445	0.024	0.008	0.376	0.008
1870	0.308	0.634	0.225	0.340	0.680	0.243	0.066	0.284	0.086
1880	0.717	0.891	0.465	0.762	0.902	0.481	0.378	0.803	0.342
1900	0.737	0.892	0.530	0.779	0.906	0.541	0.382	0.790	0.435
Hoff (1991) dates									
1850	0.000	0.457	0.331	0.000	0.390	0.135	0.000	0.380	0.187
1860	0.050	0.579	0.334	0.050	0.579	0.336	0.023	0.612	0.236
1870	0.314	0.750	0.349	0.337	0.783	0.334	0.137	0.498	0.468
1880	0.662	0.879	0.445	0.677	0.881	0.439	0.556	0.870	0.483
1900	0.661	0.882	0.505	0.674	0.887	0.500	0.569	0.870	0.559

* Free black women in 1850 and 1860

Figure 1. Married women's labor force participation, 1860-2000

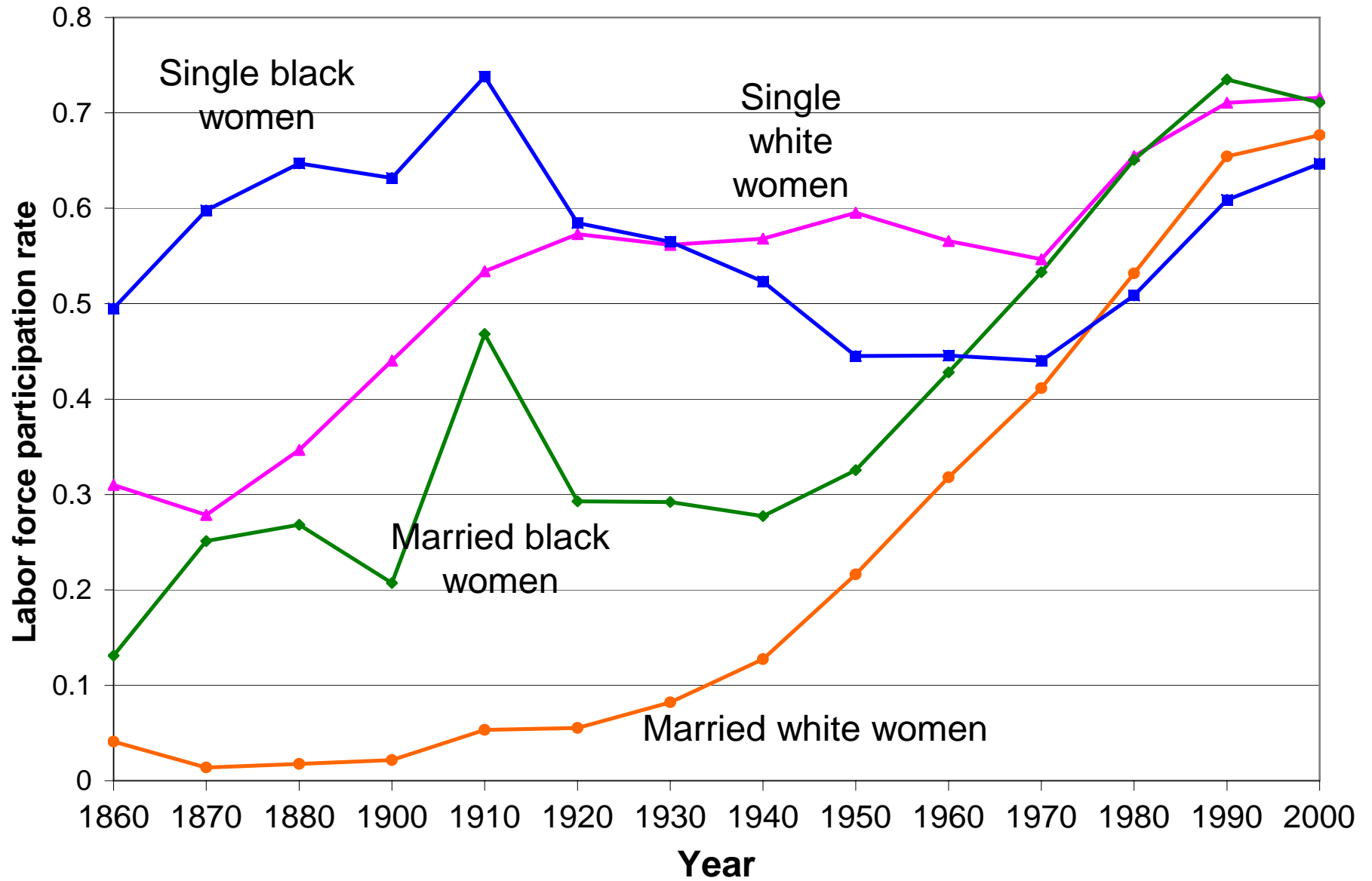


Table 3.1 Married women's labor force participation and legislation in effect
Dates of passage according to Khan (1996)

Status of legislation Year	Earnings law	No earnings law	Property law	No property law	Soletrade law	No soletrade law
<i>All married women</i>						
1860	0.038	0.043	0.031	0.051	0.038	0.043
1870	0.015	0.052	0.025	0.068	0.025	0.045
1880	0.030	0.089	0.045	0.064	0.046	0.047
1900	0.030	0.072	0.039	0.055	0.043	0.039
<i>White married women</i>						
1860	0.039	0.041	0.030	0.05	0.039	0.041
1870	0.013	0.014	0.015	0.01	0.019	0.012
1880	0.018	0.017	0.018	0.015	0.021	0.014
1900	0.021	0.021	0.021	0.017	0.024	0.017
<i>Black married women</i>						
1860	--	--	--	--	--	--
1870	0.074	0.263	0.203	0.269	0.177	0.257
1880	0.219	0.296	0.272	0.244	0.313	0.243
1900	0.184	0.228	0.217	0.191	0.244	0.186

Table 3.2 Married women's labor force participation and legislation in effect
Dates of passage according to Hoff (1991)

Status of legislation Year	Earnings law	No earnings law	Property law	No property law	Soletrade law	No soletrade law
<i>All married women</i>						
1860	0.022	0.044	0.042	0.043	0.052	0.038
1870	0.020	0.050	0.031	0.070	0.052	0.035
1880	0.045	0.050	0.046	0.050	0.049	0.045
1900	0.039	0.044	0.040	0.047	0.043	0.039
<i>White married women</i>						
1860	0.021	0.042	0.040	0.043	0.051	0.036
1870	0.016	0.013	0.015	0.010	0.014	0.013
1880	0.018	0.016	0.018	0.014	0.017	0.018
1900	0.022	0.019	0.022	0.016	0.022	0.020
<i>Black married women</i>						
1860	0.077	0.133	0.151	0.103	0.143	0.129
1870	0.101	0.274	0.230	0.270	0.259	0.242
1880	0.291	0.236	0.263	0.292	0.268	0.265
1900	0.220	0.200	0.206	0.247	0.212	0.211

Table 4.1 Changes in earnings laws and changes in labor force participation, 1860-1900
Dates of passage according to Khan (1996)

	All married women		White married women		Black married women		Non-farm white married women		Non-farm black married women	
	Labor force participation		Labor force participation		Labor force participation		Labor force participation		Labor force participation	
	1860	1870	1860	1870	1860	1870	1860	1870	1860	1870
No law	0.046	0.052	0.044	0.014	0.154	0.261	0.037	0.021	0.158	0.294
Law introduced, 1860-1870	0.030	0.009	0.029	0.008	0.048	0.048	0.024	0.011	0.040	0.055
Law pre-1860	0.041	0.020	0.039	0.018	0.112	0.087	0.034	0.020	0.118	0.080
	1870	1880	1870	1880	1870	1880	1870	1880	1870	1880
No law	0.086	0.089	0.012	0.017	0.279	0.295	0.020	0.029	0.313	0.337
Law introduced, 1870-1880	0.034	0.037	0.015	0.017	0.227	0.234	0.021	0.025	0.251	0.277
Law pre-1870	0.014	0.021	0.013	0.018	0.073	0.148	0.016	0.025	0.072	0.160
	1880	1900	1880	1900	1880	1900	1880	1900	1880	1900
No law	0.097	0.072	0.017	0.021	0.297	0.228	0.030	0.029	0.340	0.262
Law introduced, 1880-1900	0.013	0.015	0.011	0.013	0.059	0.121	0.020	0.013	--	0.125
Law pre-1880	0.030	0.030	0.017	0.021	0.219	0.184	0.025	0.027	0.249	0.193

Table 4.2 Changes in earnings laws and changes in labor force participation, 1860-1900
Dates of passage according to Hoff (1991)

	All married women		White married women		Black married women		Non-farm white married women		Non-farm black married women	
	Labor force participation		Labor force participation		Labor force participation		Labor force participation		Labor force participation	
	1860	1870	1860	1870	1860	1870	1860	1870	1860	1870
No law	0.043	0.050	0.042	0.013	0.125	0.272	0.036	0.019	0.133	0.305
Law introduced, 1860-1870	0.049	0.017	0.047	0.008	0.272	0.106	0.040	0.011	0.230	0.122
Law pre-1860	0.037	0.022	0.036	0.020	0.108	0.091	0.032	0.022	0.115	0.086
	1870	1880	1870	1880	1870	1880	1870	1880	1870	1880
No law	0.048	0.050	0.014	0.016	0.217	0.236	0.023	0.028	0.243	0.269
Law introduced, 1870-1880	0.032	0.033	0.011	0.012	0.278	0.262	0.015	0.017	0.310	0.300
Law pre-1870	0.042	0.053	0.016	0.022	0.273	0.308	0.020	0.031	0.301	0.347
	1880	1900	1880	1900	1880	1900	1880	1900	1880	1900
No law	0.053	0.044	0.017	0.019	0.238	0.199	0.029	0.025	0.272	0.225
Law introduced, 1880-1900	0.011	0.018	0.007	0.016	0.060	0.111	0.011	0.017	0.000	0.113
Law pre-1880	0.045	0.040	0.018	0.022	0.291	0.220	0.025	0.027	0.330	0.241

Table 5.1 Differences in differences estimates of effects of changes in earnings laws: Dates of passage according to Khan (1996)

	(1)	(2)	(3)	(1)-(3)
All married women				
	States with new laws, 1870-1880	States with laws, pre-1870	States without laws	
1870	0.017	0.009	0.015	0.002
1880	0.019	0.012	0.022	-0.003
				-0.005
	States with new laws, 1880-1900	States with laws, pre-1880	States without laws	
1880	0.019	0.020	0.028	-0.010
1900	0.015	0.017	0.023	-0.008
				0.001
White married women				
	States with new laws, 1870-1880	States with laws, pre-1870	States without laws	
1870	0.0092	0.0069	0.0086	0.001
1880	0.0113	0.0105	0.0128	-0.002
				-0.002
	States with new laws, 1880-1900	States with laws, pre-1880	States without laws	
1880	0.014	0.013	0.014	0.000
1900	0.015	0.016	0.017	-0.002
				-0.002
Non-farm white married women				
	States with new laws, 1870-1880	States with laws, pre-1870	States without laws	
1870	0.016	0.011	0.016	0.000
1880	0.020	0.018	0.025	-0.005
				-0.005
	States with new laws, 1880-1900	States with laws, pre-1880	States without laws	
1880	0.023	0.020	0.024	-0.001
1900	0.014	0.019	0.024	-0.010
				-0.009
Black married women				
	States with new laws, 1870-1880	States with laws, pre-1870	States without laws	
1870	0.213	0.113	0.209	0.004
1880	0.149	0.142	0.250	-0.101
				-0.105
	States with new laws, 1880-1900	States with laws, pre-1880	States without laws	
1880	0.128	0.210	0.224	-0.096
1900	0.339	0.198	0.211	0.128
				0.224
Non-farm black married women				
	States with new laws, 1870-1880	States with laws, pre-1870	States without laws	
1870	0.221	0.116	0.226	-0.005
1880	0.134	0.130	0.247	-0.113
				-0.108
	States with new laws, 1880-1900	States with laws, pre-1880	States without laws	
1880	0.132	0.217	0.235	-0.103
1900	0.351	0.192	0.209	0.141
				0.245

Table 5.2 Differences in differences estimates of effects of changes in earnings laws: Dates of passage according to Hoff (1991)

	(1)	(2)	(3)	(1)-(3)
All married women				
	States with new laws, 1870-1880	States with laws, pre-1870	States without laws	
1870	0.019	0.009	0.013	0.006
1880	0.019	0.012	0.018	0.001
				-0.005
	States with new laws, 1880-1900	States with laws, pre-1880	States without laws	
1880	.014	.023	.021	-0.007
1900	.019	.021	.019	0.000
				0.007
White married women				
	States with new laws, 1870-1880	States with laws, pre-1870	States without laws	
1870	.009	.007	.009	0.000
1880	.009	.009	.012	-0.003
				-0.003
	States with new laws, 1880-1900	States with laws, pre-1880	States without laws	
1880	.010	.013	.013	-0.003
1900	.016	.015	.015	0.001
				-0.002
Non-farm white married women				
	States with new laws, 1870-1880	States with laws, pre-1870	States without laws	
1870	.015	.012	.018	-0.003
1880	.014	.015	.022	-0.008
				-0.005
	States with new laws, 1880-1900	States with laws, pre-1880	States without laws	
1880	.016	.020	.023	-0.007
1900	.015	.018	.021	-0.006
				-0.001
Black married women				
	States with new laws, 1870-1880	States with laws, pre-1870	States without laws	
1870	.260	.102	.186	0.074
1880	.189	.134	.232	-0.043
				-0.117
	States with new laws, 1880-1900	States with laws, pre-1880	States without laws	
1880	.135	.229	.205	-0.070
1900	.402	.227	.204	0.198
				0.268
Non-farm black married women				
	States with new laws, 1870-1880	States with laws, pre-1870	States without laws	
1870	.312	.120	.216	0.096
1880	.201	.149	.256	-0.055
				-0.151
	States with new laws, 1880-1900 ³²	States with laws, pre-1880	States without laws	
1880	.000	.281	.237	-0.237
1900	.398	.254	.213	0.185
				0.422

³² The states in this category are: Oregon, South Dakota, Washington, Montana, West Virginia and Utah which had negligible populations of non-farm black women in 1880, making this comparison dubious.

Table 6: Determinants of married women in labor force being sole traders, 1910-1920

	Change in probability	s.e	Change in probability	s.e	Change in probability	s.e	Change in probability	s.e
Farming occupation	0.718	0.017	0.727	0.017	0.724	0.018	0.724	0.018
Managerial occupation	0.454	0.022	0.453	0.024	0.438	0.024	0.438	0.024
Clerical occupation	-0.197	0.006	-0.193	0.006	-0.185	0.007	-0.185	0.007
Sales occupation	-0.093	0.013	-0.100	0.013	-0.097	0.013	-0.097	0.013
Craft occupation	-0.085	0.018	-0.055	0.022	-0.052	0.022	-0.052	0.022
Operative occupation	-0.050	0.012	-0.001	0.014	0.001	0.014	0.001	0.014
Service occupation	0.055	0.013	0.118	0.015	0.099	0.016	0.099	0.016
Agricultural labor occupation	-0.139	0.010	-0.137	0.013	-0.132	0.014	-0.132	0.014
Laborer occupation	-0.184	0.008	-0.166	0.010	-0.162	0.010	-0.162	0.010
Husband had farming occupation			-0.007	0.019	-0.027	0.019	-0.027	0.019
Husband has managerial occupation			0.051	0.021	0.048	0.021	0.048	0.021
Husband has clerical occupation			-0.042	0.020	-0.031	0.021	-0.031	0.021
Husband has sales occupation			0.007	0.023	0.013	0.023	0.013	0.023
Husband has craft occupation			-0.053	0.016	-0.044	0.016	-0.044	0.016
Husband has operative occupation			-0.106	0.013	-0.088	0.014	-0.088	0.014
Husband has service occupation			-0.096	0.014	-0.088	0.015	-0.088	0.015
Husband has agricultural labor occupation			-0.108	0.014	-0.109	0.014	-0.109	0.014
Husband has laborer occupation			-0.088	0.014	-0.077	0.015	-0.077	0.015
Spouse has no occupation			-0.028	0.021	-0.048	0.019	-0.048	0.019
Age					0.007	0.001	0.007	0.001
Age squared					0.000	0.000	0.000	0.000
Urban residence					-0.021	0.008	-0.021	0.008
Native born					0.039	0.008	0.039	0.008
Number of boys aged 13-19 in family					0.011	0.007	0.011	0.007
Number of girls aged 13-19 in family					0.024	0.006	0.024	0.006
Number of working boys					0.004	0.006	0.004	0.006
Number of working girls					-0.021	0.007	-0.021	0.007
Number of non-relatives in household					0.002	0.001	0.002	0.001
Black					0.015	0.008	0.035	0.054
Spouse is black							-0.020	0.052
N: 21, 752 for all models								
LR statistic	3185.880		3468.000		3802.080		3802.230	
Significance	0.000		0.000		0.000		0.000	
Pseudo R ²	0.136		0.148		0.162		0.162	

Table 7.1 Determinants of a married woman's probability of being a sole trader, 1870-1880

	All married women			
	Khan		Hoff	
	Co-efficient	s.e.	Co-efficient	s.e.
Sole trade law in effect	-0.013	0.009	0.010	0.006
Sole trade law passed, 1870-1880	0.009	0.007	-0.043	0.021
Year is 1880	-0.016	0.005	-0.002	0.005
Sole trade law in effect x Year is 1880	0.010	0.011	-0.026	0.008
Sole trade law passed, 1870-1880 x Year is 1880	0.011	0.010	0.035	0.025
constant	-0.009	0.008	-0.009	0.008
Labor force participation				
Living on farm	-0.360	0.016	-0.360	0.016
Urban residence	0.014	0.017	0.014	0.017
Lives in group quarters	0.719	0.057	0.721	0.057
Age	0.027	0.004	0.027	0.004
Age squared	0.000	0.000	0.000	0.000
Spouse's age	-0.023	0.004	-0.023	0.004
Spouse's age squared	0.000	0.000	0.000	0.000
Spouse is black	0.685	0.104	0.680	0.104
Spouse is other race	0.592	0.357	0.583	0.357
Spouse is U.S. born	-0.140	0.019	-0.141	0.019
Spouse is in labor force	-0.051	0.038	-0.053	0.038
Number of children	-0.098	0.004	-0.099	0.004
Number of teenage boys	-0.070	0.018	-0.070	0.018
Number of teenage girls	-0.118	0.017	-0.118	0.017
Number of working boys	0.135	0.014	0.136	0.014
Number of working girls	0.363	0.015	0.364	0.015
Community property state	0.141	0.025	0.146	0.025
Equity court state	0.308	0.018	0.299	0.018
Percent of state labor force in manufacturing	-0.834	0.092	-0.833	0.092
Percent of state population in cities over 25,000	-0.283	0.069	-0.246	0.068
Sex ratio	-0.459	0.079	-0.512	0.081
Black	0.641	0.105	0.648	0.105
Other race	0.640	0.350	0.664	0.350
Constant	-0.918	0.109	-0.867	0.111
/athrho	0.913		0.903	
/lnsigma	-1.605		-1.608	
Wald chi2(5)	25.800		29.960	
P > chi2	0.000		0.000	
Log likelihood	-16615.440		-16613.340	
N	149149		149149	

Table 7.2 Determinants of a white married woman's probability of being a sole trader, 1870-1880

	White married women			
	Khan		Hoff	
	Co-efficient	s.e.	Co-efficient	s.e.
Sole trade law in effect	0.040	0.012	0.004	0.010
Sole trade law passed, 1870-1880	0.029	0.012	-0.023	0.019
Year is 1880	-0.016	0.009	-0.014	0.008
Sole trade law in effect x Year is 1880	0.008	0.013	-0.014	0.012
Sole trade law passed, 1870-1880 x Year is 1880	-0.065	0.015	0.014	0.023
constant	-0.619	0.024	-0.587	0.024
Labor force participation				
Living on farm	-0.225	0.017	-0.236	0.017
Urban residence	0.048	0.015	0.047	0.015
Lives in group quarters	0.158	0.053	0.168	0.054
Age	0.013	0.004	0.013	0.004
Age squared	0.000	0.000	0.000	0.000
Spouse's age	-0.013	0.004	-0.014	0.004
Spouse's age squared	0.000	0.000	0.000	0.000
Spouse is black	0.525	0.119	0.545	0.120
Spouse is other race				
Spouse is U.S. born	-0.042	0.014	-0.039	0.014
Spouse is in labor force	-0.121	0.031	-0.124	0.031
Number of children	-0.061	0.005	-0.063	0.006
Number of teenage boys	0.010	0.016	0.012	0.016
Number of teenage girls	-0.010	0.015	-0.009	0.015
Number of working boys	0.033	0.013	0.034	0.014
Number of working girls	0.183	0.020	0.191	0.020
Community property state	0.071	0.031	0.076	0.031
Equity court state	0.141	0.018	0.106	0.017
Percent of state labor force in manufacturing	-0.228	0.071	-0.181	0.073
Percent of state population in cities over 25,000	-0.055	0.060	-0.138	0.061
Sex ratio	-0.161	0.053	-0.219	0.055
Black				
Other race				
Constant	-1.515	0.085	-1.427	0.087
/athrho	2.231		2.193	
/lnsigma	-0.964		-0.974	
Wald chi2(5)	45.130		14.730	
P > chi2	0.000		0.012	
Log likelihood	-9134.030		-9149.093	
N	131793		131793	

Table 7.3 Determinants of a married woman's probability of being a sole trader, 1880-1900

	All married women			
	Khan		Hoff	
	Co-efficient	s.e.	Co-efficient	s.e.
Sole trade law in effect	0.016	0.006	-0.032	0.006
Sole trade law passed, 1870-1880	-0.017	0.011	-0.045	0.011
Year is 1880	0.030	0.006	0.000	0.006
Sole trade law in effect x Year is 1880	-0.031	0.008	0.027	0.008
Sole trade law passed, 1870-1880 x Year is 1880	0.010	0.015	0.036	0.015
constant	0.056	0.008	0.084	0.009
Labor force participation				
Living on farm	-0.292	0.014	-0.291	0.014
Urban residence	0.037	0.014	0.038	0.014
Lives in group quarters	0.660	0.043	0.661	0.043
Age	0.038	0.004	0.038	0.004
Age squared	-0.001	0.000	-0.001	0.000
Spouse's age	-0.021	0.003	-0.020	0.003
Spouse's age squared	0.000	0.000	0.000	0.000
Spouse is black	0.670	0.123	0.671	0.123
Spouse is other race	0.459	0.200	0.458	0.200
Spouse is U.S. born	-0.079	0.015	-0.079	0.015
Spouse is in labor force	-0.120	0.028	-0.122	0.028
Number of children	-0.097	0.004	-0.097	0.004
Number of teenage boys	-0.016	0.014	-0.016	0.014
Number of teenage girls	-0.047	0.013	-0.046	0.013
Number of working boys	0.096	0.011	0.096	0.011
Number of working girls	0.306	0.012	0.306	0.012
Community property state	0.056	0.020	0.053	0.020
Equity court state	0.308	0.015	0.306	0.015
Percent of state labor force in manufacturing	-0.902	0.079	-0.913	0.079
Percent of state population in cities over 25,000	-0.130	0.046	-0.118	0.046
Sex ratio	-0.223	0.060	-0.228	0.060
Black	0.615	0.123	0.615	0.123
Other race	0.732	0.199	0.734	0.199
Constant	-1.423	0.088	-1.420	0.088
/athrho	0.515	0.024	0.503	0.024
/lnsigma	-1.589	0.009	-1.594	0.009
Wald chi2(5)	36.440		48.680	
P > chi2	0.000		0.000	
Log likelihood	-27537.930		-27531.810	
N	217527		217527	

Table 7.4 Determinants of a white married woman's probability of being a sole trader, 1880-1900

	White married women			
	Khan		Hoff	
	Co-efficient	s.e.	Co-efficient	s.e.
Sole trade law in effect	0.028	0.008	-0.014	0.007
Sole trade law passed, 1870-1880	0.027	0.017	-0.005	0.018
Year is 1880	-0.029	0.007	-0.031	0.006
Sole trade law in effect x Year is 1880	0.007	0.009	0.013	0.009
Sole trade law passed, 1870-1880 x Year is 1880	-0.070	0.021	-0.024	0.022
constant	-0.782	0.020	-0.757	0.020
Labor force participation				
Living on farm	-0.134	0.012	-0.136	0.012
Urban residence	0.016	0.010	0.011	0.010
Lives in group quarters	0.132	0.036	0.124	0.036
Age	0.008	0.003	0.008	0.003
Age squared	0.000	0.000	0.000	0.000
Spouse's age	-0.004	0.003	-0.004	0.003
Spouse's age squared	0.000	0.000	0.000	0.000
Spouse is black	0.328	0.100	0.332	0.101
Spouse is other race	-0.060	0.252	-0.023	0.247
Spouse is U.S. born	-0.027	0.009	-0.025	0.009
Spouse is in labor force	-0.120	0.019	-0.122	0.018
Number of children	-0.033	0.003	-0.034	0.003
Number of teenage boys	0.010	0.010	0.012	0.010
Number of teenage girls	0.003	0.009	0.003	0.009
Number of working boys	0.042	0.008	0.042	0.008
Number of working girls	0.092	0.011	0.096	0.011
Community property state	0.046	0.018	0.047	0.018
Equity court state	0.120	0.012	0.084	0.011
Percent of state labor force in manufacturing	-0.280	0.050	-0.210	0.049
Percent of state population in cities over 25,000	-0.079	0.032	-0.112	0.033
Sex ratio	-0.203	0.042	-0.286	0.042
Black	-1.573	0.063	-1.479	0.062
Other race				
Constant				
/athrho	2.592	0.043	2.583	0.044
/lnsigma	-0.792	0.018	-0.793	0.018
Wald chi2(5)	86.530		48.390	
P > chi2	0.000		0.000	
Log likelihood	-16496.360		-16516.180	
N	193609		193609	

Table 8: Difference in differences estimate of effects of sole-trade laws**Dates of passage according to Khan (1996)****All married women**

	(1)	(2)	(3)	(1)-(3)
States with new laws, 1870-1880		States with laws, pre-1870	States without laws	
1870	0.355	0.333	0.346	0.009
1880	0.347	0.327	0.330	0.017
				0.008
States with new laws, 1880-1900		States with laws, pre-1880	States without laws	
1880	0.269	0.302	0.286	-0.017
1900	0.294	0.301	0.316	-0.022
				-0.004

White married women

States with new laws, 1870-1880		States with laws, pre-1870	States without laws	
1870	0.363	0.374	0.334	0.029
1880	0.330	0.366	0.318	0.011
				-0.017
States with new laws, 1880-1900		States with laws, pre-1880	States without laws	
1880	0.341	0.342	0.314	0.027
1900	0.278	0.321	0.285	-0.008
				-0.035

Dates of passage according to Hoff (1991)**All married women**

States with new laws, 1870-1880		States with laws, pre-1870	States without laws	
1870	0.300	0.353	0.343	-0.043
1880	0.318	0.325	0.342	-0.024
				0.019
States with new laws, 1880-1900		States with laws, pre-1880	States without laws	
1880	0.264	0.277	0.309	-0.045
1900	0.296	0.305	0.309	-0.013
				0.032

White married women

States with new laws, 1870-1880		States with laws, pre-1870	States without laws	
1870	0.332	0.359	0.355	-0.023
1880	0.322	0.331	0.341	-0.019
				0.004
States with new laws, 1880-1900		States with laws, pre-1880	States without laws	
1880	0.331	0.323	0.337	-0.005
1900	0.275	0.305	0.305	-0.030
				-0.025

References

- Basch, Norma. "Invisible Women: The Legal Fiction of Marital Unity in Nineteenth-Century America." *Feminist Studies* 5 (1979): 346-66.
- Carter, Susan B., and Richard Sutch. "Fixing the Facts: Editing of the 1880 U.S. Census of Occupations with Implications for Long-Term Labor-Force Trends and the Sociology of Official Statistics." *Historical Methods* 29, no. 1 (1996): 5-24.
- Chused, Richard. "Late Nineteenth Century Married Women's Property Law: Reception of the Early Married Women's Property Acts by Courts and Legislatures." *American Journal of Legal History* 29, no. 1 (1985): 3-35.
- Combs, Mary Beth. "A Measure of Legal Independence": The 1870 Married Women's Property Act and the Portfolio Allocations of British Wives / Combs, Mary Beth." *Journal of Economic History* 65, no. 4 (2005): 1028-57.
- . "Wives and Household Wealth: The Impact of the 1870 British Married Women's Property Act on Wealth-Holding and Share of Household Resources." *Continuity and Change* 19, no. 1 (2004): 141.
- Folbre, Nancy, and M. Abel. "Women's Work and Women's Households: Gender Bias in the U.S. Census." *Social Research* 56 (1989): 545-70.
- Geddes, Rick, and Dean Lueck. "The Gains from Self-Ownership and the Expansion of Women's Rights." *American Economic Review* 92, no. 4 (2002): 1079-92.
- Gignesi, Amy Lydia. "Relinquishing Control: The Married Women's Property Acts in Mid-Nineteenth Century America." Dissertation/Thesis, Am. U., 2005.
- Hall, Kermit. *The Magic Mirror: Law in American History*. New York: Oxford University Press, 1989.
- Hoff, Joan. *Law, Gender and Injustice: A Legal History of U.S. Women*. New York: New York University Press, 1991.
- Khan, B. Zorina. "Married Women's Property Laws and Female Commercial Activity: Evidence from United States Patent Records, 1790-1895." *Journal of Economic History* 56, no. 2 (1996): 356.
- Lazarou, Kathleen Elizabeth. "Concealed under Petticoats: Married Women's Property and the Law of Texas, 1840-1913." PhD, Rice University, 1980.
- Meyer, Annie Nathan, and Julia Ward Howe, eds. *Woman's Work in America*. New York: Henry Holt, 1891.
- Moncrief, Sandra. "The Mississippi Married Women's Property Act of 1839." *Journal of Mississippi History* 47, no. 2 (1985): 110.
- Ruggles, Steven, Matthew Sobek, Trent Alexander, Catherine A. Fitch, Ronald Goeken, Patricia Kelly Hall, Miriam King, and Chad Ronnander. *Integrated Public Use Microdata Series: Version 3.0*. [Machine-readable database] Minneapolis, MN: Minnesota Population Center [producer and distributor], 2004.
- Schuele, Donna Clare. "'a Robbery to the Wife': Culture, Gender and Marital Property in California Law and Politics, 1850-1890." PhD, University of California Berkeley, 1999.
- Shammas, Carole. "Re-Assessing the Married Women's Property Acts." *Journal of Women's History* 6, no. 1 (1994): 9-30.
- Siegel, Reva B. "Home as Work: The First Woman's Rights Claims Concerning Wives' Household Labor, 1850-1880." *Yale Law Journal* 103, no. 5 (1994): 1073-217.
- Stanley, Amy Dru. "Conjugal Bonds and Wage Labor: Rights of Contract in the Age of Emancipation." *Journal of American History* 75, no. 2 (1988): 471-500.
- . *From Bondage to Contract: Wage Labor Marriage and the Market in the Age of Slave Emancipation, Marriage*, 1998.
- Welke, Barbara Y. *Recasting American Liberty: Gender, Race, Law, and the Railroad Revolution, 1865-1920*. New York: Cambridge University Press, 2001.
- Zeigler, Sara L. "Uniformity and Conformity: Regionalism and the Adjudication of the Married Women's Property Acts." *Polity* 28, no. 4 (1996): 467-95.

———. "Wifely Duties: Marriage, Labor and the Common Law in Nineteenth-Century America." *Social Science History* 20, no. 1 (1996): 63-96.