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### Single Motherhood and the Abolition of Coverture in the United States

#### **Abstract**

Under the common-law system of *coverture* in the United States, a married woman relinquished control of property and wages to her husband. Many U.S. states passed acts between 1850 and 1920 that expanded a married woman's right to keep her market earnings and to own separate property. The former were called married women's earnings acts (MWEAs) and the latter married women's property acts (MWPAs). Scholarly interest in the acts' effects is growing. Researchers have examined how the acts affected outcomes such as women's wealth-holding and educational attainment. The acts' impact on women's non-marital birth decisions remains unexamined, however. We postulate that the acts caused women to anticipate greater benefits from having children within rather than outside of marriage. We thus expect passage of MWPAs and MWEAs to reduce the likelihood that single women become mothers of young children. We use probit regression to analyze individual data from the U.S. Census for the years 1860 to 1920. We find that the property acts in fact reduced the likelihood that single women have young children. We also find that the "de-coverture" acts' effects were stronger for literate women, U.S.-born women, in states with higher female labor-force participation, and in more rural states, consistent with predictions.

JEL-Codes: D100.

Keywords: property, earnings, family, law, fertility, marriage.

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#### I. Introduction

In the United States today, unmarried women who had been married and divorced once owned about 50% less wealth than their male counterparts before retirement (Zissimopoulos et al. 2015). The gender-wealth gap appears to be particularly pronounced at the top of the wealth distribution (Deere and Doss 2006). It is likely that this gender gap would have been even more dramatic had the Married Women's Property Acts (MWPAs) and the Married Women's Earnings Acts (MWEAs) not been passed many decades ago (Shammas et al. 1987). Prior to passage of reform legislation in the 19<sup>th</sup> century, most U.S. states followed the common law doctrine of coverture to govern a woman's property rights within the family. Coverture's name stems from the fact that a married woman lived almost entirely under her husband's legal "cover." A married woman – a *feme covert* – could not make contracts, buy or sell property, sue or be sued, own her market earnings, or draft wills. If the husband died, his wife could not be the guardian of their under-age children (Women, Enterprise and Society 2010). In the unusual case of divorce, the husband held child custody rights.

Economists have examined the fundamental forces driving U.S. states' abolition of coverture, which started around the middle of the 1800s (e.g., Geddes and Lueck 2002, Doepke and Tertilt 2009, Fernandez 2010). Legal scholars have placed these developments in an international context by examining the significant changes in married women's rights and economic status occurring in many countries in the late 19<sup>th</sup> and early 20<sup>th</sup> centuries (e.g., Chused 1983, Hamilton 1999, Siegel 1994a, 1994b). Others have examined women's property legislation

<sup>&</sup>lt;sup>1</sup> Zissimopoulos et al. (2015, p. 12) report that the mean wealth of unmarried men ages 51 to 56 with 1 divorce was 196,382 \$ in \$2004, based on the 1992, 1998 and 2004 waves of the Health and Retirement Survey. The corresponding amount for women in the same age group and marital status was 131,175 \$. These men's wealth was almost exactly 50% more than that of their female counterparts.

in detail, often focusing on legal changes in a particular state (e.g., Basch 1982, Lazarou 1980, Salmon 1982).

Scholars in law and economics have studied the consequences of these major changes in women's economic rights in the United States and elsewhere. They have considered women's property holdings (e.g. Cohen 1988, Shammas 1994, Combs 2004, 2005), labor force participation (Roberts 2009) and school attendance (Roberts 2009, Geddes et al. 2012). The acts' impact on women's non-marital births has remained unexamined, however. We address that gap by focusing on the effect of coverture on women's non-marital fertility. Almost 7 out of every 1,000 single women had a child under age 5 in the years 1880 to 1920, despite the strong social norms restricting out-of-marriage births during this time. Studying this demographic dimension is also interesting because children motivate asset accumulation of both married and unmarried parents, known as the positive bequest motive (e.g. Horioka 2014). Moreover, there is a significant impact of single parental status on *inter vivos* transfers to children. For instance, according to Kværner (2016) single parents are more likely to transfer their wealth to their children while still alive relative to married parents.

We first present a theoretical framework based on rational choice that generates predictions regarding coverture's effect on the probability of women having children outside of marriage. Our central prediction is that the institution of coverture bolsters women's incentives to have children outside of marriage. Conversely, we expect the abolition of this institution to be associated with fewer children born out of marriage.

The extinction of coverture occurred largely at the state level. Between 1850 and 1920, all but five states passed laws that were critical in easing the strictures of coverture, and thus in strengthening married women's economic rights: the Married Women's Property Acts (MWPAs)

and the Earnings Acts (MWEAs) that expanded the rights of married women to, respectively, own their separate property and their market earnings. We predict that decreases in the frequency of non-marital births will be associated with the acts' passage. We also expect that the impact of "de-coverture" acts on non-marital motherhood will be stronger for literate women than for illiterates, for U.S.-born women than for foreign-born, in states with higher female labor force participation, and in more rural states.

We use difference-in-difference analysis, Census data and probit regression to examine whether the passage of each act type was accompanied by a reduction in the likelihood of women having children outside marriage. We also test our predictions regarding factors that may be associated with a stronger negative impact of MWPAs and MWEAs on the likelihood that single women became mothers.

The next section describes the legal framework created by coverture, changes embodied in the acts, and some sources of pressure to pass the acts. Section III offers a theoretical framework for analyzing the impact of the acts on women's non-marital fertility. Section IV describes our data set and estimation methods, while Sections V and VI report estimation results and robustness checks, respectively. Section VII summarizes and concludes.

#### II. Legal Background

Under the English common-law system of coverture, which applied in the majority of U.S. states prior to the acts, the property that a wife owned prior to marriage (a so-called *feme sole*) came under the control of the husband during marriage.<sup>2</sup> Therefore, upon marriage a woman relinquished control over her personal property – which included movable property such as livestock, furniture, stocks and money – to her husband. The husband was permitted to dispose

<sup>&</sup>lt;sup>2</sup> As stated by Blackstone (1775-1779, Book II, Chapter 29): "... the very being and existence of the woman is suspended during 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."

of it at any time. He could will it away at death (Shammas, Salmon, and Dahlin 1987, p. 3). A series of state statutes weakened this legal doctrine in the United States. The earliest statutes, known as debt statutes, merely granted a married woman a separate estate insulated from her husband's debts. They did not grant her the right to manage and control that estate.<sup>3</sup> Debt statutes thus do not meet our definition of property acts.

We study the impact of two later act types: the married women's property acts (MWPAs), which granted married women the right to own and control real and personal property, and the married women's earnings acts (MWEAs), which granted married women the right to own their earnings from work outside the home. States passed those acts at different times, as summarized in Table 1. We define married women's property acts as those granting the wife power to manage and control her separate estate. Management and control rights are more consistent with the creation of a true property right from an economic perspective, which emphasizes how the law allocates control over well-defined resources (e.g. Barzel 1997). The first statute granting married women control over their separate property is the New York Married Women's Property Act of 1848. All other states followed, most enacting MWPAs between 1850 and 1920, which is close to our study period.

Earnings acts, which granted married women a property right to their market earnings, are easier to identify than property acts and typically went through less modification. For example, an 1860 act added earnings to the rights New York women held under the 1848 Act cited above. Key clauses in this statute state that property acquired by a married woman "by her

<sup>&</sup>lt;sup>3</sup> See Geddes and Tennyson (2013). An example is from the <u>Acts of Alabama</u>, 1846, No. 20 (p. 25), which states: Sec. 6. *And be it further enacted*, That the property of the wife at the time of the marriage, or which she may receive by descent, bequest, or gift, shall not be subject to the debts or liabilities of the husband, contracted or incurred before the marriage; nor shall the husband be liable to pay the antenuptial contracts or liabilities of the wife, further than the property received by the wife; but such property received by the wife, shall be liable to her debts notwithstanding the termination

trade, business, labor or services" shall "be and remain her sole and separate property . . . and shall not be subject to the interference or control of her husband" (New York Session Laws, 1860, Ch. 90, p. 157). Maryland and Massachusetts were the first two states to pass MWEAs.

Of course, legislative acts expanding married women's economic rights were not passed in a political vacuum. Women's groups pressed for adoption in many states, and assorted arguments were marshaled both for and against passage. In some cases, male legislators supporting rights expansions were influenced by progressive attitudes and by rights activists. The sponsor of the 1848 New York Act mentioned above, Judge Thomas Hertell, was persuaded by various women's rights advocates. He wanted a wife to be "respected as the equal of a good husband." Women lobbied for a year in New York to secure the passage of the 1860 earnings act discussed above. Intense pressure from women's groups led to the passage of a married women's property act in Ohio in 1861. In the West, married women's property acts were often passed with the intention of attracting women to the region, and retaining them. Scholars have also noted that reform was slower in the South, where legislatures focused on granting women separate estates mainly to insulate them from profligate husbands (VanBurkleo 2001, p. 128, Chused 1983, p. 1361).

A commentator in 1871 stressed the acts' importance in weakening coverture, as well as the nature of arguments against them, stating that, "The law of the status of women is the last vestige of slavery. Upon their subjection it has been thought rests the basis of society; disturb

<sup>&</sup>lt;sup>4</sup> Hertell quoted in Rabkin (1980, p. 87).

<sup>&</sup>lt;sup>5</sup> VanBurkleo (2001, p. 131) states that, "In Ohio, incessant campaigning to persuade delegates to the constitutional convention to grant women 'all the political and legal rights . . . guaranteed to men' led to passage of a married women's property law in 1861."

<sup>&</sup>lt;sup>6</sup> Regarding the California married women's property reform, August (1990, p. 54-6) notes that one delegate explained that he had chosen the 'best provision to get us wives.' Also see Chused (1983).

that, and society crumbles into ruins. By the married women's property acts the first blow has been struck . . . The huge idol will sooner or later be broken into pieces."<sup>7</sup>

We next describe a theoretical framework that generates predictions about the likely impact of changes in women's economic rights on their decision to bear children out of marriage. Our approach predicts that the common law institution of coverture will reduce married women's incentives to have children within marriage, for several reasons. It thus implies that de-coverture acts will enhance women's incentives to have children within marriage.

#### II. Theoretical framework

We consider a particular margin of woman's choice that may be affected by the MWPAs and MWEAs: having children within versus outside of marriage. We assume the woman is rational and has control over her childbearing, which is consistent with rational choice models of childbearing proposed by economists, including Becker (1960, 1965) and Mincer (1963). They however assume that married-couple households decide to have a child based on weighing costs and benefits. In contrast, in our rational choice model it is women who make a decision as to whether to have a child alone or while married. Prior economic models in which individuals – not couples – make fertility decisions include Grossbard-Shechtman (1986) and Ekert-Jaffe and Grossbard (2008). Although focused on the individual, these models recognize that when individuals make childbearing decisions they take account of options offered by marriage markets, labor markets and other institutions. In marriage markets, members of the other gender have the opportunity to express their preferences.

The assumption that women, including single women, had control over their fertility is compatible with a number of facts we know about the United States in the late 19<sup>th</sup> and early 20<sup>th</sup>

<sup>&</sup>lt;sup>7</sup> American Law Review 6 (1871): 73 (no author given).

Century. Most of the population at that time were either European immigrants or their descendants and in both the US and the European countries of origin it was common to abstain from sexual relations prior to marriage. (Weeks 2012). Use of contraceptives increased throughout the nineteenth century, contributing to a 50 percent drop in the fertility rate in the United States between 1800 and 1900, particularly in urban regions (Engelman 2011). That drop in fertility has been partially attributed to a rising spirit of self-determination and autonomy associated with the popularity of more tolerant Protestant denominations (Leasure 1989).

Our model is similar to that of Ekert-Jaffe and Grossbard (2008): we assume that women make a decision on whether to first form a couple and then have a child or to have a child out-of-couple. Ekert-Jaffe and Grossbard use contemporary Western data for countries with high rates of unmarried couple formation. They thus focus on women's decision to have a child alone or as part of a couple (married or not). We study the United States in the 19<sup>th</sup> and early 20<sup>th</sup> centuries, when non-marital cohabitation was very rare. We thus limit our model to a choice between marital and non-marital fertility.

*The decision-making model* 

Define Y as the present value of net benefits a woman expects to obtain if she becomes a mother while married and A as the present value of net expected benefits from becoming an unmarried mother. The difference

$$R^* = A - Y$$

is a latent variable representing the net benefit of being a non-marital mother versus that of being a married mother. It is unobserved; we instead observe R, the decision to be an unmarried mother. A woman becomes an unmarried mother (R = 1) if the net benefits of having a non-

marital birth and keeping the child exceed those of having a marital birth. The lower *Y* is relative to *A*, the higher the likelihood of an unmarried birth.

Between 1850 and 1920, most births were marital. Assuming rationality, this implies that in most cases *Y* exceeded *A*. During that period during which government programs helping single mothers were unavailable and the prospect of poverty often forced a mother to give up her child for adoption or care at an orphanage. The unmarried single mothers in our sample were living with their children. The assumption of rationality implies that to them *A* exceeded *Y*.

Values A and Y include material and non-material net benefits, where net benefits equal benefits minus costs. An example of a material cost is the opportunity cost of forgone income from paid work due to either marriage or childbearing. An example of material benefits that may be included in both Y and A is access to income of other household members such as monetary transfers from the child's father, whether he is alive or dead, to the mother. If she is married then the father is likely to take better financial care of his child's mother than if she is unmarried and Y is expected to exceed A. Y is also likely to include expected benefits that the mother may receive in case of separation or divorce. Ekert-Jaffe and Grossbard (2008) showed that women are more likely to opt for out-of-couple motherhood if laws regulating the division of property in case of divorce are less protective of the interests of low-income divorced mothers. The expected Y is therefore lower.

Coverture entailed significant costs for women who first married and then had children. Once married, women lost control of their market earnings and of property they owned prior to marriage, or could have owned while married. Coverture thus reduced Y – the net benefits of having a child in marriage – by lowering married women's access to material resources they could have owned due to inheritance, business activity, or labor-force participation.

Coverture also reduced women's net benefits from having a child in marriage by reducing married women's bargaining power. Decision rights inside an organization such as a household or a firm are a direct function of the agents' opportunities outside the organization, and thus of their property rights. In the case of firms, agents who are employees tend to have less control over the fruits of their labor than independent contractors (Grossman and Hart 1986, Nobel Committee 2016). This possible link between decision rights and property rights is one of the ways by which marriages resemble firms. Under coverture, men could use their property rights to control women's ability to make a variety of decisions affecting their personal wellbeing inside the household, including decisions regarding the number of children, as well as their education and health. If the husband died, the wife was not even considered the legal guardian of her own fatherless children, possibly a byproduct of coverture.

Reduced levels of *Y* under coverture consequently created incentives for women to have non-marital births. Conversely, we expect the removal of coverture to reduce the likelihood of a non-marital birth since it raises *Y* relative to *A*. Our main prediction is:

Prediction 1. Passage of the MWPAs and MWEAs is associated with lower rates of non-marital childbearing.

We also expect our model to be more applicable when we anticipate women's decisions to be more firmly based on rational choice. The propensity to act rationally may be a positive function of literacy. We therefore posit:

Prediction 2. Passage of the MWPAs and MWEAs is more likely to be associated with lower rates of non-marital childbearing among literate women than among illiterate ones.

<sup>&</sup>lt;sup>8</sup> Other similarities between firms and marriages as organizations engaged in productive work in the context of post-coverture societies are discussed in Grossbard (2015).

Literacy also matters because it is related to job opportunities and potential earnings.

Therefore literate women living in states with higher labor-force participation rates will be more likely to respond to incentives discouraging marital births, suggesting:

Prediction 2'. Passage of the MWPAs and MWEAs is more likely to be associated with lower rates of non-marital childbearing among literate women in states with higher labor-force participation.

Would the effect of abolition of coverture on the non-marital fertility of U.S.-born women differ from that for foreign-born women? Awareness of coverture laws and their imminent removal may be more widespread among U.S.-born women than among foreign-born women, generating:

Prediction 3. Passage of the MWPAs and MWEAs is more likely to be associated with lower rates of non-marital childbearing among U.S.-born women than among foreign-born women.

We also consider whether the acts ending coverture had a differential impact in rural versus urban areas. On farms women typically worked without getting paid in the form of market earnings, thus:

Prediction 4 the MWEA is less likely to have an impact on the non-marital childbearing of women living in rural states, but the MWPA is likely to have more impact in rural areas to the extent that property ownership among farmers is more likely to be an issue at marriage.

Eight states were community property states during the period we study. Those states offered better protection for a marriage's low earners – typically women – in case of marital dissolution due to death or divorce. From that perspective, we expect the impact of a MWPA or MWEA to be less in community property states than in the rest of the United States. However,

these states also adopted many of the rulings of coverture states, so that MWPA and MWEA passage is not expected to have a differential impact in community property states.

#### III. Data and Methods

We combine data on law passage with state-level data from the U.S. decennial census summary reports and from individual-level data from IPUMS, the Integrated Public Use Microdata Series (IPUMS-USA). Census data are available for every decade from 1850 to 1920 (except for 1890<sup>9</sup>). However, most of our analysis starts with the 1880 Census, which was the first to explicitly ask respondents for their marital status. The alternative answers to the marital status question are married, widowed or divorced. Most of our estimates use pooled data for the Census years 1880, 1900, 1910 and 1920, during which 14 states passed MWEAs and 10 states passed MWPAs and explicit data on marital status is available. We also consider the period 1860 to 1920, although we don't have explicit information on marital status for 1860 and 1870. We instead infer single status for those years, as explained below.

Because of changes in territory boundaries over this time period, our sample includes only those states and territories in each census year which achieved (roughly) their permanent boundaries by that year. Data on state laws granting married women expanded economic rights come from primary and secondary sources. Following Geddes et al. (2012) and Geddes and Tennyson (2013) we use the earliest year a state passed an act granting married women management and control over their separate market earnings or estates. That approach uses a

<sup>&</sup>lt;sup>9</sup> The 1890 Census records were lost to fire.

<sup>&</sup>lt;sup>10</sup> We assume that all births to women married at the time of the census occurred after they married. We have no way of knowing whether that is actually the case or not.

careful three-step process for act date determination. The approach reflects a characterization of property rights that emphasizes women's control.

Our goal is to analyze the likelihood that an unmarried woman has a young child, which we define as a child under age 5.<sup>11</sup> We focus on white women since they were the majority and some data were collected around the time slavery ended. The property acts are not expected to have had the same impact on slaves as on free women. We do not have a sufficient number of observations to analyze black women separately for most states. We only considered women 20 to 40 years old; this captures most of the years women are likely to have a child aged five or younger during the sample period. Table 2 presents summary statistics. During the period 1880-1920 (Panel I), only 6.9 women on average lived with their child aged 5 or younger for every 1,000 single women 20 to 40 years old.

We estimate the probability that a single white woman has a child under 5 as a function of the passage of each act in her state of residence. We use a one-year lag, include state-and-year fixed effects, and control for the state-level and individual-variables described below. Using a linear specification, we estimate:

(1) 
$$Y_{ist} = a + b'X_{ist} + c'Law_{st} + d'Z_{st} + \zeta_t + \eta_s + \varepsilon_{ist}$$

where  $X_{ist}$  are individual characteristics,  $Law_{st}$  is a dummy for the presence of a MWPA or MWEA,  $Z_{st}$  are other state-level explanatory variables,  $\zeta_t$  is a state-invariant year effect, and  $\eta_s$  is a year-invariant state effect. Individual characteristics include age, age squared (to capture the non-linear relationship between a woman's age and the likelihood that she would have a child), and literacy. As shown in Table 2, the vast majority of our sample (95 percent) is literate.

<sup>&</sup>lt;sup>11</sup> We were unable to obtain data on mothers of children younger than 5 due to constraints on how individual Census data on children's ages are coded.

A single woman's decision to have a child is jointly determined with her labor force participation and possible migration. We do not use those variables at the individual level. We instead use state-level information on women's labor-force participation and urbanization, since those are exogenous from an individual woman's perspective. Since we include state-and-year fixed effects, we created dummies for state's above-average urbanization and above-average participation of women in the labor force. We calculate an "urbanized" dummy from the individual Census data. It equals 1 if a state has an above-average percentage of urban population in a particular census year. In turn, percent urban for each state and year was obtained from the U.S. decennial census summary reports. We also calculate a "high LFP" dummy that equals 1 if a state has an above-average rate of labor-force participation for white women aged 20 to 40. Moreover, we use the state-level ratio of males to females and per capita wealth (defined as dollars of real and personal property per capita). We use probit regressions given the low likelihood that single women have a young child.

To test Prediction 2, we estimate Equation 1 using our whole sample as well as for the separate sample of literate and illiterate women. To test Prediction 3, we ran separate regressions for U.S.-born and foreign-born women. We also estimated models that include interaction terms between (1) law and 'high LFP' to test whether women reacted differently to the abolition of coverture where and when they had more opportunities to work in the labor force; and (2) law and 'urbanized' to test whether women's reaction to the abolition of coverture depended on how urbanized their state was at the time of the survey.

Estimates for 1860 to 1920. As reported in Table 1, several states passed MWPAs and MWEAs between 1859 and 1870. However, the Censuses of 1860 and 1870 do not include

information on marital status.<sup>12</sup> We inferred single status based on women's answers to questions about their relationship to the household head for those earlier years. A question about that relationship was asked during all census years. We used individual data on both marital status and type of relationship for the years 1880 to 1920 to infer marital status (see the Appendix for details). We estimate Regression 1 using inferred marital status instead of actual marital status for the period 1880 to 1920. This allows us to examine whether we obtain similar results with our inferred variable to those obtained using actual marital status, and for the longer period 1860 to 1920.

#### IV. Estimates

We use probit regression to estimate the likelihood that single women have a child under age 5 for the years 1880-1920, when the Census explicitly asked respondents for their marital status. Table 3 reports our basic estimates. Tables 4 and 5 examine whether the likelihood of being a single mother varies with the state's urbanization or labor-force participation. Tables 6 and 7 consider whether the likelihood of being a single mother is different for U.S.-born versus foreign-born single women.

The effects of MWPAs and MWEAs. Table 3 presents estimates of probit regressions where the dependent variable is the probit of (explicitly) single women having a child under age 5. We focus on the "law" coefficient since that indicates whether a property act (MWPA) or an earnings act (MWEA) was in place at the time of the survey. Column 1 indicates that the property act has a negative association with white women being single moms. This confirms our principal prediction: property acts made it more appealing for women to be married, so they were

<sup>&</sup>lt;sup>12</sup> They do include a question about labor force participation, however, which is not the case for the Census of 1850. Therefore we don't use the 1850 Census at all, even though some states also passed de-coverture acts by 1850.

less likely to have a child outside marriage after the act's passage. We do not observe a similar effect of the earnings acts (column 2), however.

Why did the property acts have more impact on non-marital childbearing than the earnings acts? It could be that more married women were likely to own or possibly inherit property in the future than they were to earn an income in the labor force given the low rates of labor-force participation of married women during the period we studied.

De-coverture and literacy. We tested whether the law's effect was a function of women's level of literacy. Since the prediction is based on the assumption that women make a rational choice, we also tested Prediction 2, whether the effect of the property and earnings acts were larger for literate women than for illiterate ones. Columns 3 to 6 present the basic regressions 1 and 2, separately for literate and illiterate women. It can be seen that the coefficient of property law is negative for both types of women. However, it is only statistically significant for literate women. This confirms prediction 2 for property acts. The earnings acts did not have a significant effect on single women's likelihood of being the mother of a young child.

Other results reported in Table 3. As expected we find that as single women age they are more likely to be mothers, but the effect of age is not linear: the coefficient of age squared is negative, indicating that the likelihood of being a single mother peaks at a certain age. Literate women are less likely to have a child while single, which may reflect their better marriage prospects.

De-coverture and women's labor force participation. Table 4 displays estimates of the differential effects of the acts depending on whether or not a woman lived in a state with above-average labor-force participation. Prediction 2 posits that de-coverture acts are more likely to be associated with lower rates of non-marital childbearing among literate women in states with

higher labor-force participation. Columns 2, 4, and 6 in Table 4 indicate that the coefficient of interaction of law and above average female labor-force participation is negative. This means that, in states with high female labor force participation, the MWEAs (earnings acts) had a negative impact on the likelihood that single women had children. However, this effect was not restricted to literate women; it was also found for illiterate women. The coefficient of state's high female participation rate is positive in the MWEA case. Therefore, under coverture in states with better employment opportunities for women, women were encouraged to remain single and to possibly have children outside marriage. When such states passed laws allowing married women to keep their earnings (the MWEAs), women responded by reducing their likelihood of having a child while single.

De-coverture and urbanization. Table 5 reports estimates of whether the laws had a different impact in states that with an above-average percent of the population living in urban areas. We interacted the law dummies with "urbanized" defined as a dummy equal to 1 if the state had an above-average urban population. Results are reported in Table 5. It can be seen that for the sample as a whole, and for the subsample of literate U.S.-born white women aged 20 to 40, property law had a negative impact on the likelihood that a single woman has a child. This negative effect is restricted to rural states however. This is consistent with Prediction 4: property ownership is more likely to be an issue at marriage among farmers. It is also consistent with the proposition that in rural states the MWEA did not have an impact on the likelihood that single women have children. However, we also find that in urbanized states MWEA passage was associated with increases in the likelihood that single women had children, which is a result that we find hard to explain.

De-coverture and U.S.-born status. Tables 6 and 7 report basic regression estimates for U.S.-born and foreign-born women. We predicted that U.S.-born women would be more knowledgeable about the implications of the property and earnings acts and therefore would respond more negatively to their passage in terms of their likelihood of being single mothers. The regressions in columns 1 to 4 of Table 6, estimated for U.S.-born women, are similar to results obtained for the entire sample as reported in Table 3 (84 percent of our sample are U.S.-born). However, whereas for all illiterate women there was no effect of law indicators (Table3) U.S.-born illiterate women reacted positively to the MWEAs, in contrast to literate women, whose behaviour is consistent with our economic model.

Table 7 reports estimates for foreign-born women. Whether literate or not, foreign-born women's response to the de-coverture acts was inconsistent with rational choice and with our economic model. Those two tables thus support the prediction that, relative to foreign-born women, U.S.-born women are more alert to legal changes and will respond more in line with an economic model.

Results for longer period 1860 to 1920. Table 8 reports results using inferred single estimations. Columns 1 and 2 reproduce estimates from our basic model using explicitly single status, copied from Table 3. In columns 3 and 4 we re-estimate the basic regressions for the same years using the inferred single status method as described in Appendix A.

#### VI. Robustness checks

We obtained the above estimates assuming a one-year lag between law passage and survey year. We also estimated our models without a lag and with a two-year lag and found similar effects.

Eight states in our study had laws based on the French or Spanish system and followed the community property doctrine. That doctrine in theory gives married women greater control over household property in the case of marital dissolution (see, e.g., Fernandez, 2009). Community property law, however, did not actually give women equal rights since husbands usually held exclusive control rights over joint property and wealth. We nevertheless examined whether women in those states reacted differently to the passage of de-coverture acts. When community property states are excluded the results are similar to those presented above. Robustness checks are available upon request.

#### VII. Summary and conclusions

Under *coverture* a married woman in the United States relinquished property and wages to her husband. Many U.S. states passed acts between 1850 and 1920 that weakened or abolished coverture: the married women's earnings acts (MWEAs) allowed married women to keep their market earnings, while the married women's property acts (MWPAs) allowed them to keep their property. We present an economic model that leads us to predict that coverture created incentives for women to have children outside marriage, whereas the process of ''de-coverture'' via either MWPAs or MWEAs made it less beneficial for single women to have children. We analyzed U.S. Census data for the years 1880 to 1920 to test whether a state's passage of one of these acts is associated with a lower likelihood that single women were mothers of young children. Estimates based on Probit functions, and including a variety of controls, indicate that the property acts reduced the likelihood that single women aged 20 to 40 had children under age 5, consistent with predictions. If women stood to gain more (or to lose less) from marriage they were more likely to wait until marriage to have a child.

Relative to illiterate women, literate women are more likely to respond to de-coverture acts via a lower likelihood of having a child as a single woman. This is also consistent with predictions. Likewise, relative to women born abroad, U.S.-born women are more likely to respond to de-coverture given their higher awareness of local legal settings. Furthermore, we find that single women's non-marital fertility was more responsive to de-coverture in states with more opportunities for women to work in the labor force. This is reflected in higher labor-force participation rates for women ages 20 to 40. An additional finding consistent with our model is that the property acts had a greater impact on the likelihood that rural single women had a child under age five. Property ownership among farmers also influenced the marriage decision. However, we also find that passage of the MWEAs in more urbanized states is associated with a greater likelihood that single women had children. We find this latter result hard to explain.

Research on the effects of marital property and earnings acts on non-marital fertility in the 19<sup>th</sup> and early 20<sup>th</sup> century in the United States has interesting ramifications for contemporary readers. First, it has implications for the study of wealth, gender wealth gaps, and the perpetuation of gender gaps in wealth from one generation to the next. Recent Norwegian research has shown that, relative to their married counterparts, single parents save less towards bequests and give more to their children in the form of *intra-vivos* transfers (Kvaerner 2016). To the extent that passage of the property and earnings acts discouraged non-marital fertility, it may have contributed to higher savings rates, more wealth accumulation and more rapid economic growth.

Second, our research stresses the importance of individual men and women's bargaining power inside their marriage. Coverture and its demise via the MWPAs and MWEAs led to dramatic improvements in women's relative bargaining power within marriage. This realignment

inside the household may have influenced not only the relative likelihood that women had their children outside marriage as well as important aspects of their personal. Finally, this research implies that, when studying fertility decisions, social scientists and legal scholars should focus on individuals rather than composite households as decision-making agents.

#### Appendix A

This appendix discusses how we inferred 'unmarried' from the IPUMS data for the Census years 1880, 1900, 1910 and 1920, for which we had an explicit marital status variable. As shown in the table below we cross tabulated respondents' type of relationship to the household head (vertical) with explicit marital status (horizontal). If 70 percent or more of respondents in a particular relationship to the household head explicitly reported being never married or single, we assumed that these respondents are 'inferred single'. These categories are highlighted in the table below.

More specifically, *Inferred Single* was set equal to one if respondents had the following relationships to the household head: "Child," "Sibling," "Sibling-in-Law," "Grandchild," "Other relatives," "Partner, friend, visitor," or "Other non-relatives," and was set equal to zero otherwise. A very small number of respondents reported that their relationship to the household head was "parent" or "parent-in-law," and those were dropped from the sample. We also drop respondents who reported that their household head was an institutional inmate.

We then inferred that all women aged 20 to 40 reporting these types of relationship in the earlier years (1850 to 1870) were never married or single.

Appendix Table 1: Marital status of respondents according to their relationship to the household head, 1880 to 1920, women ages 20 to 40

#### Marital status

| Relationship to household head | Total     | Married,<br>spouse<br>present | Married,<br>spouse<br>absent | Divorced | Widowed | Never<br>married/Single |
|--------------------------------|-----------|-------------------------------|------------------------------|----------|---------|-------------------------|
| Head/Householder               | 51,336    | 1.49%                         | 16.04%                       | 4.57%    | 56.94%  | 20.96%                  |
| Spouse                         | 983,164   | 99.98%                        | 0.02%                        | 0%       | 0%      | 0%                      |
| Child                          | 316,523   | 5.54%                         | 4.02%                        | 0.90%    | 3.37%   | 86.17%                  |
| Child-in-law                   | 19,685    | 88.96%                        | 4.82%                        | 0.13%    | 3.97%   | 2.12%                   |
| Sibling                        | 30,821    | 2.96%                         | 3.77%                        | 0.98%    | 6.80%   | 85.49%                  |
| Sibling-in-law                 | 17,941    | 12.26%                        | 6.89%                        | 1.05%    | 8.04%   | 71.76%                  |
| Grandchild                     | 3,268     | 9.70%                         | 5.11%                        | 0.80%    | 2.88%   | 81.52%                  |
| Other relatives                | 14,924    | 5.51%                         | 3.98%                        | 1.04%    | 5.19%   | 84.29%                  |
| Partner, friend, Visitor       | 1,000     | 11.80%                        | 9.80%                        | 2.10%    | 8.40%   | 67.90%                  |
| Other non-relatives            | 136,986   | 10.11%                        | 6.05%                        | 1.27%    | 6.51%   | 76.05%                  |
| Total                          | 1,575,648 | 65.82%                        | 2.13%                        | 0.48%    | 3.43%   | 28.13%                  |

#### **References:**

- Barzel, Y. (1997). *Economic Analysis of Property Rights 2nd Ed.* Cambridge University Press.
- Basch, N. (1982). In the Eyes of the Law: Women, Marriage, and Property in Nineteenth-Century New York. Ithaca: Cornell University Press.
- Becker, G. S. (1960). "An Economic Analysis of Fertility." In *Demographic and Economic Change in Developed Countries, a Conference of the Universities--*National Bureau Committee for Economic Research. Princeton, N.J.: Princeton University Press.
- \_\_\_\_\_. (1965), "A Theory of the Allocation of Time." *Economic Journal* 75: 493-515.
- Bishop, J. P. (1875). Commentaries on the Law of Married Women Under the Statutes of the Several States, and at Common Law and in Equity. Boston: Little, Brown and Company.
- Chused, R. C. (1983). "Married Women's Property Law: 1800-1850." *Georgetown Law Journal* 71: 1359-1425.
- Deere, C. D., & Doss C.R. (2006). "The Gender Asset Gap: What do we know and Why Does it matter?" *Feminist Economics* 12(1): 1-50.
- Doepke, M., & Tertilt M. (2009). "Women's Liberation: What's In It for Men?" *Quarterly Journal of Economics*. 124(4): 1541-1591.
- Ekert-Jaffe, O., & Grossbard S. (2008). "Does Community Property Discourage Unpartnered Births?" *European Journal of Political Economy* 24(1): 25-40.
- Engelman, P. C. (2011). *A History of the Birth Control Movement in America*. Santa Barbara, CA: ABC-CLIO, ISBN 978-0-313-36509-6
- Fernandez, R. (2009). "Women's Rights and Development." NBER Working Paper No. 15355 (Issued in September 2009).
- Geddes, R., & Lueck D. (2002). "The Gains from Self-Ownership and the Expansion of Women's Rights," *American Economic Review* 92:1079-92.
- Geddes, R., Lueck D., & Tennyson S. (2012). "Human Capital Accumulation and the Expansion of Women's Property Rights." *Journal of Law & Economics* 55(4): 839-67.
- Geddes, R. R., & Tennyson, S. (2013). Passage of the Married Women's Property Acts and Earnings Acts in the United States: 1850 to 1920. In *Research in Economic History*. Emerald Group Publishing Limited.
- Grossbard, S. (2015). The Marriage Motive. New York: Springer.

- Grossbard-Shechtman, A. (1986). "Economic Behavior, Marriage and Fertility: Two Lessons from Polygyny." *Journal of Economic Behavior and Organization*, 7: 415-424.
- Grossman, S., & Hart O. (1986). "The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration." *Journal of Political Economy* 94: 691-719.
- Hamilton, G. (1999). "Property Rights and Transaction Costs in Marriage: Evidence from Prenuptial Contracts." *Journal of Economic History* 59: 68-103.
- Hoff, J. (1991). Law, Gender, and Injustice. New York: NYU Press.
- Horioka, C.Y. (2014). "Are Americans and Indians More Altruistic than the Japanese and Chinese? Evidence from a New International Survey of Bequest." Review of Economics of the Household 12:411-437.
- Kelly, J. F. (1882). A Treatise on the Law of Contracts of Married Women. Jersey City, NJ: F.W. Linn & Company
- Khan, B. Z. (1996). "Married Women's Property Laws and Female Commercial Activity: Evidence from Unites State Patent Records, 1790-1895." *Journal of Economic History* 56: 356-388.
- Kværner, J.S. (2016), "How Important Are Bequest Motives? Evidence based on Shocks to Mortality." Working Paper, Norwegian School of Economics Department of Finance, September.
- Lazarou, K. E. (1986). Concealed under Petticoats: Married Women's Property and the Law of Texas 1840-1913. New York: Garland.
- Leasure, J. W. (1989). "A Hypothesis about the decline of fertility: evidence from the United States." *European Journal of Population* 5: 105-17.
- Mincer, J. (1963). "Market Prices, Opportunity Costs, and Income Effects." In *Measurement in Economics*. Stanford, CA: Stanford University Press.
- (The) Nobel Committee for the Prize in Economic Sciences (2016). "Oliver Hart and Bengt Holmström: Contract Theory." Stockholm, October.
- Roberts, E. (2009). "Her Real Sphere: Married Women's Labor Force Participation in the United States, 1860-1940." *Journal of Economic History*, 69(2): 554-558.
- Shammas, C. (1994). "Re-Assessing the Married Women's Property Acts." *Journal of Women's History* 6: 9-30
- Shammas, C., Salmon M., & Dahlin M. (1987). *Inheritance in America: From Colonial Times to the Present*. New Brunswick: Rutgers University Press.

- Siegel, R. B. (1994a). "Home As Work: The First Woman's Rights Claims Concerning Wives' Household Labor, 1850-1880." *Yale Law Journal* 103(5): 1073-1217.
- Siegel, R. B. (1994b). "The Modernization of Marital Status Law: Adjudicating Wives' Rights to Earnings, 1860–1930." *Georgetown Law Review* (82): 2127-2211.
- Salmon, M. (1982). "Women and Property in South Carolina: The Evidence from Marriage Settlements, 1730-1830." *William and Mary Quarterly* 39: 655-685.
- Vanburkleo, S. F. (2001). Belonging to the World: Women's Rights and the American Constitutional Culture. Oxford: Oxford University Press.
- Weeks, J. R. (2012). *Population: An Introduction to Concepts and Issues 11th Edition*. Belmont, California: Wadsworth.
- Wells, J. C. (1878). A Treatise on the Separate Property of Married Women under the Recent Enabling Statutes. Cincinnati: Robert Clarke & Company.
- Women, Enterprise and Society (2010). "Women and the Law." *Harvard Business School*. Retrieved December 26, 2016 from http://www.library.hbs.edu/hc/wes/collections/women\_law/.
- Zissimopoulos J. M., Karney B.R. & Rauer A.J. (2015). "Marriage and economic well-being at older ages." *Review of Economics of the Household* 13(1):1–35.

Table 1: Dates of Passage of MWPAs and MWEAs

| State           | Property | Earnings | State           | Property | Earnings |
|-----------------|----------|----------|-----------------|----------|----------|
| AL              | _        | 1887     | NE              | 1871     | 1871     |
| $AZ^a$          | 1871     | 1973     | NV <sup>a</sup> | 1873     | 1873     |
| AR              | 1873     | 1873     | NH              | 1860     | 1867     |
| CAa             | 1872     | 1872     | NJ              | 1852     | 1874     |
| CO              | 1861     | 1861     | NM <sup>a</sup> | 1884     | _        |
| CT              | 1877     | 1877     | NY              | 1848     | 1860     |
| DE              | 1873     | 1873     | NC              | 1868     | 1913     |
| FL              | 1943     | 1892     | ND              | 1877     | _        |
| GA              | 1873     | 1861     | ОН              | 1861     | 1861     |
| $ID^a$          | 1903     | 1915     | OK              | 1883     | _        |
| IL              | 1861     | 1869     | OR              | 1878     | 1872     |
| IN              | 1879     | 1879     | PA              | 1848     | 1872     |
| IA              | 1873     | 1873     | RI              | 1872     | 1872     |
| KS              | 1858     | 1858     | SC              | 1868     | 1887     |
| KY              | 1894     | 1873     | SD              | 1877     | _        |
| LA <sup>a</sup> | 1916     | 1928     | TN              | 1919     | 1919     |
| ME              | 1855     | 1857     | TX <sup>a</sup> | 1913     | 1913     |
| MD              | 1860     | 1842     | UT              | 1872     | 1897     |
| MA              | 1855     | 1846     | VT              | 1881     | 1888     |
| MI              | 1855     | 1911     | VA              | 1877     | 1888     |
| MN              | 1869     | 1869     | WA <sup>a</sup> | 1881     | 1881     |
| MS              | 1880     | 1873     | WV              | 1868     | 1893     |
| MO              | 1875     | 1875     | WI              | 1850     | 1872     |
| MT              | 1887     | 1887     | WY              | 1869     | 1869     |

Notes: a/ community property state during our study timeframe.

Dark Grey: acts that passed prior to 1850; Light Grey: acts that passed between 1850 & 1879; White: acts that passed in the period 1880-1920.

Table 2: Summary Statistics

Panel I: 1880-1920

| Variable                   | Mean    | Std. Dev. |
|----------------------------|---------|-----------|
|                            |         |           |
| Individual-level Variables |         |           |
| Single Mom (explicit)      | 0.0069  | 0.0826    |
| Age                        | 25.5793 | 5.3903    |
| Literacy                   | 0.9547  | 0.2080    |
| State-Level Variables      |         |           |
| % Urban                    | 42.5702 | 22.8895   |
| Ratio of Males to Females  | 1.0331  | 0.0869    |
| Per Capita Wealth (\$1000) | 15.2170 | 6.5539    |
| Female LFP, 20-40          | 0.1898  | 0.0800    |
| N                          | 440     | 0,072     |
|                            |         |           |
| Single Mom (inferred)      | 0.04961 | 0.2171    |
| N                          | 518     | 3,493     |

#### Panel II: 1860-1920

| Variable                   | Mean    | Std. Dev. |
|----------------------------|---------|-----------|
|                            |         |           |
| Individual-level Variables |         |           |
| Single Mom (inferred)      | 0.0510  | 0.2200    |
| Age                        | 26.0045 | 5.5388    |
| Literacy                   | 0.9514  | 0.2150    |
|                            |         |           |
| State-Level Variables      |         |           |
| % Urban                    | 41.7228 | 22.8078   |
| Ratio of Males to Females  | 1.0352  | .09754    |
| Per Capita Wealth (\$1000) | 14.9243 | 6.7044    |
| Female LFP, 20-40          | 0.1870  | 0.0798    |
| N                          | 557     | 7,426     |

Table 3: Probit Estimates of the Effects of Property & Earning Acts on the Probability of Having a Child Under Five for White Single Women Ages 20-40, United States, 1880-1920

|                              | All        |                    | Lite                  | rate               | Illiterate          |                    |
|------------------------------|------------|--------------------|-----------------------|--------------------|---------------------|--------------------|
| Variable                     | MWPAs      | MWEAs              | MWPAs                 | MWEAs              | MWPAs               | MWEAs              |
|                              | 1          | 2                  | 3                     | 4                  | 5                   | 6                  |
| T. T. P. M.                  | 0.0020**   | 0.0007             | 0.0020**              | 0.0005             | 0.0216              | 0.0065             |
| Law Indicator                | -0.0029**  | 0.0007<br>(0.0007) | -0.0028**<br>(0.0013) | 0.0005<br>(0.0007) | -0.0216<br>(0.0170) | 0.0065<br>(0.0042) |
| State-Level Controls         | (0.0012)   | (0.0007)           | (0.0013)              | (0.0007)           | (0.0170)            | (0.0042)           |
| % Urban                      | -0.0000    | -0.0000            | -0.0000               | 0.0000             | -0.0004             | -0.0003            |
|                              | (0.0000)   | (0.0000)           | (0.0000)              | (0.0000)           | (0.0008)            | (0.0008)           |
| Ratio of Males to<br>Females | 0.0035     | 0.0035             | 0.0028                | 0.0028             | 0.0326              | 0.0295             |
|                              | (0.0027)   | (0.0027)           | (0.0023)              | (0.0023)           | (0.0371)            | (0.0370)           |
| Per Capita Wealth (\$1000)   | -0.0001*   | -0.0001            | -0.0001               | -0.0001            | -0.0011             | -0.0012            |
|                              | (0.0001)   | (0.0001)           | (0.0001)              | (0.0001)           | (0.0011)            | (0.0011)           |
| LFP Rate                     | -0.0045    | -0.0057            | -0.0066               | -0.0079            | 0.1196              | 0.1083             |
|                              | (0.0097)   | (0.0093)           | (0.0100)              | (0.0098)           | (0.1204)            | (0.1077)           |
| Individual-Level Controls    |            |                    |                       |                    |                     |                    |
| Age                          | 0.0017***  | 0.0017***          | 0.0015***             | 0.0015***          | 0.0137***           | 0.0137***          |
|                              | (0.0002)   | (0.0002)           | (0.0002)              | (0.0002)           | (0.0025)            | (0.0025)           |
| Age Squared                  | -0.0000*** | -0.0000***         | -0.0000***            | -0.0000***         | -0.0002***          | -0.0002***         |
|                              | (0.0000)   | (0.0000)           | (0.0000)              | (0.0000)           | (0.0000)            | (0.0000)           |
| Literate                     | -0.0155*** | -0.0156***         |                       |                    |                     |                    |
|                              | (0.0017)   | (0.0017)           |                       |                    |                     |                    |
| N                            | 440,072    | 440,072            | 420,132               | 420,132            | 19,272              | 19,272             |

<sup>\*</sup> Statistically significant at 10% level; \*\* at 5% level; \*\*\* at 1% level.

Notes: Marginal effects based on unweighted IPUMS data are reported. All regressions also include state and year fixed effects. Standard errors clustered by state are in parentheses.

Table 4: Probit Estimates of the Effects of Property & Earning Acts on the Probability of Having a Child Under Five for White Single Women Ages 20-40, United States, 1880-1920; with Interactions of Law and Above Average Female Labor Force Participation (High FLFP)

|                            | Α         | <b>.</b> 11 | Lite      | Literate   |            | erate      |
|----------------------------|-----------|-------------|-----------|------------|------------|------------|
| Variable                   | MWPAs     | MWEAs       | MWPAs     | MWEAs      | MWPAs      | MWEAs      |
|                            | 1         | 2           | 3         | 4          | 5          | 6          |
|                            |           |             |           |            |            |            |
| Law Indicator              | -0.0028** | 0.0009      | -0.0028** | 0.0006     | -0.0202    | 0.0078*    |
|                            | (0.0012)  | (0.0007)    | (0.0013)  | (0.0007)   | (0.0173)   | (0.0041)   |
| Law * High FLFP            | -0.0011   | -0.0042***  | -0.0006   | -0.0033*** | -0.1968*** | -0.2228*** |
|                            | (0.0007)  | (0.0009)    | (0.0008)  | (0.0009)   | (0.0020)   | (0.0021)   |
| State-Level Controls       |           |             |           |            |            |            |
|                            |           |             |           |            |            |            |
| % Urban                    | -0.0000   | -0.0000     | -0.0000   | 0.0000     | -0.0003    | -0.0001    |
|                            | (0.0000)  | (0.0000)    | (0.0000)  | (0.0000)   | (0.0008)   | (0.0008)   |
| Ratio of Males to Females  | 0.0036    | 0.0036      | 0.0029    | 0.0030     | 0.0288     | 0.0249     |
|                            | (0.0027)  | (0.0027)    | (0.0023)  | (0.0023)   | (0.0338)   | (0.0336)   |
| Per Capita Wealth (\$1000) | -0.0001   | -0.0001     | -0.0001   | -0.0001    | -0.0013    | -0.0015    |
|                            | (0.0001)  | (0.0001)    | (0.0001)  | (0.0001)   | (0.0011)   | (0.0011)   |
| High FLFP                  | 0.0005    | 0.0035***   | -0.0001   | 0.0025***  | 0.7314***  | 0.7950***  |
|                            | (0.0008)  | (0.0008)    | (0.0009)  | (0.0009)   | (0.0278)   | (0.0206)   |
|                            |           |             |           |            |            |            |
| N                          | 440,072   | 440,072     | 420,132   | 420,132    | 19,272     | 19,272     |

<sup>\*</sup> See notes to Table 3. Regressions also include individual level controls as in Table 3 and state and year fixed effects.

Table 5: Probit Estimates of the Effects of Property & Earning Acts on the Probability of Having a Child Under Five for White Single Women Ages 20-40, United States, 1880-1920; with Interactions of Law and "Urbanized"

|                            | All        |            | Lite       | erate      | Illite     | Illiterate |  |
|----------------------------|------------|------------|------------|------------|------------|------------|--|
| Variable                   | MWPAs      | MWEAs      | MWPAs      | MWEAs      | MWPAs      | MWEAs      |  |
|                            | 1          | 2          | 3          | 4          | 5          | 6          |  |
|                            |            |            |            |            |            |            |  |
| Law Indicator              | -0.0029**  | 0.0007     | -0.0028**  | 0.0005     | -0.0219    | 0.0064     |  |
|                            | (0.0012)   | (0.0007)   | (0.0013)   | (0.0007)   | (0.0169)   | (0.0041)   |  |
| Law * Urbanized            | 0.1753***  | 0.1516***  | 0.1602***  | 0.1386***  |            |            |  |
|                            | (0.0014)   | (0.0011)   | (0.0013)   | (0.0011)   |            |            |  |
| State-Level Controls       |            |            |            |            |            |            |  |
| Urbanized                  | -0.2724*** | -0.2358*** | -0.2776*** | -0.2400*** | -0.0432*** | -0.0428*** |  |
|                            | (0.0165)   | (0.0142)   | (0.0169)   | (0.0148)   | (0.0148)   | (0.0146)   |  |
| Ratio of Males to Females  | 0.0032     | 0.0033     | 0.0026     | 0.0027     | 0.0370     | 0.0348     |  |
|                            | (0.0026)   | (0.0026)   | (0.0022)   | (0.0023)   | (0.0341)   | (0.0349)   |  |
| Per Capita Wealth (\$1000) | -0.0001**  | -0.0001*   | -0.0001*   | -0.0001    | -0.0011    | -0.0010    |  |
|                            | (0.0001)   | (0.0001)   | (0.0001)   | (0.0001)   | (0.0009)   | (0.0010)   |  |
| LFP Rate                   | -0.0065    | -0.0070    | -0.0084    | -0.0089    | 0.1463     | 0.1404     |  |
|                            | (0.0097)   | (0.0093)   | (0.0096)   | (0.0096)   | (0.1153)   | (0.1051)   |  |
|                            |            |            |            |            |            |            |  |
| N                          | 440,103    | 440,103    | 420,162    | 420,162    | 19,272     | 19,272     |  |

<sup>\*</sup> See notes to Table 3. Regressions also include individual level controls as in Table 3 and state and year fixed effects.

Table 6: Probit Estimates of the Effects of Property & Earning Acts on the Probability of Having a Child Under Five for U.S.-Born White Single Women Ages 20-40, United States, 1880-1920

|                               | A                               | All                             |                                 | rate                            | Illiterate                     |                                |
|-------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|--------------------------------|--------------------------------|
| Variable                      | MWPAs                           | MWEAs                           | MWPAs                           | MWEAs                           | MWPAs                          | MWEAs                          |
|                               | 1                               | 2                               | 3                               | 4                               | 5                              | 6                              |
| Law Indicator                 | -0.0033**<br>(0.0013)           | 0.0008<br>(0.0008)              | -0.0030**<br>(0.0014)           | 0.0004<br>(0.0008)              | -0.0383<br>(0.0280)            | 0.0134**<br>(0.0063)           |
| State-Level Controls          |                                 |                                 |                                 |                                 |                                |                                |
| % Urban                       | -0.0000<br>(0.0000)             | -0.0000<br>(0.0000)             | 0.0000<br>(0.0000)              | 0.0000<br>(0.0000)              | -0.0008<br>(0.0012)            | -0.0003<br>(0.0012)            |
| Ratio of Males to<br>Females  | 0.0008                          | 0.0007                          | 0.0011                          | 0.0011                          | -0.0719*                       | -0.0787**                      |
| Per Capita Wealth<br>(\$1000) | (0.0019) -0.0002***             | (0.0017)<br>-0.0002***          | (0.0017)<br>-0.0002**           | (0.0016)<br>-0.0001**           | (0.0426)<br>-0.0021            | (0.0379)<br>-0.0026            |
| LFP Rate                      | (0.0001)<br>-0.0026<br>(0.0108) | (0.0001)<br>-0.0039<br>(0.0102) | (0.0001)<br>-0.0067<br>(0.0107) | (0.0001)<br>-0.0081<br>(0.0104) | (0.0021)<br>0.2528<br>(0.1766) | (0.0021)<br>0.2345<br>(0.1451) |
| N                             | 371,411                         | 371,411                         | 356,487                         | 356,487                         | 14,439                         | 14,439                         |

<sup>\*</sup> See notes to Table 3. Regressions also include individual level controls as in Table 3 and state and year fixed effects.

Table 7: Probit Estimates of the Effects of Property & Earning Acts on the Probability of Having a Child Under Five for Foreign-Born White Single Women Ages 20-40, United States, 1880-1920

|                            | A                      | All                    |                      | erate                | Illiterate            |                      |
|----------------------------|------------------------|------------------------|----------------------|----------------------|-----------------------|----------------------|
| Variable                   | MWPAs                  | MWEAs                  | MWPAs                | MWEAs                | MWPAs                 | MWEAs                |
|                            | 1                      | 2                      | 3                    | 4                    | 5                     | 6                    |
| Law Indicator              | -0.0012<br>(0.0019)    | 0.0005<br>(0.0006)     | -0.0016<br>(0.0035)  | 0.0009*<br>(0.0005)  | 0.0047***<br>(0.0018) | 0.0051**<br>(0.0020) |
| State-Level Controls       |                        | ,                      |                      | ,                    | , ,                   | , ,                  |
| % Urban                    | 0.0000 (0.0000)        | 0.0000 (0.0000)        | 0.0000<br>(0.0001)   | 0.0000<br>(0.0001)   | -0.0002<br>(0.0005)   | -0.0003<br>(0.0005)  |
| Ratio of Males to Females  | 0.0052**               | 0.0054*                | 0.0031               | 0.0034               | 0.1748**              | 0.1711**             |
| Per Capita Wealth (\$1000) | (0.0026)<br>0.0001**   | (0.0028)<br>0.0002***  | (0.0026)<br>0.0001*  | (0.0028)<br>0.0001** | (0.0851)<br>0.0006    | (0.0822)<br>0.0007   |
| LFP Rate                   | (0.0001)<br>-0.0459*** | (0.0001)<br>-0.0469*** | (0.0001)<br>-0.0300* | (0.0001)<br>-0.0292* | (0.0006)<br>-0.1074   | (0.0006)<br>-0.1294  |
|                            | (0.0147)               | (0.0147)               | (0.0181)             | (0.0177)             | (0.1561)              | (0.1679)             |
| N                          | 65,245                 | 65,245                 | 60,094               | 60,094               | 4,032                 | 4,032                |

<sup>\*</sup> See notes to Table 3. Regressions also include individual level controls as in Table 3 and state and year fixed effects.

Table 8: Probit Estimates of the Effects of Property & Earning Acts on the Probability of Having a Child Under Five for White Women Ages 20-40, United States, 1860-1920; Explicitly Single and Inferred Single

|                              | Explicit Single 1880-1920 |            | Inferred Sing | le 1880-1920 | Inferred Single 1860-1920 |            |
|------------------------------|---------------------------|------------|---------------|--------------|---------------------------|------------|
| Variable                     | MWPAs                     | MWEAs      | MWPAs         | MWEAs        | MWPAs                     | MWEAs      |
|                              | 1                         | 2          | 3             | 4            | 5                         | 6          |
| T T 1                        | 0.0020**                  | 0.0007     | 0.000 6 4 4   | 0.0001       | 0.0005***                 | 0.0002     |
| Law Indicator                | -0.0029**                 | 0.0007     | -0.0096**     | 0.0001       | -0.0095***                | 0.0002     |
| State-Level Controls         | (0.0012)                  | (0.0007)   | (0.0045)      | (0.0037)     | (0.0031)                  | (0.0028)   |
| % Urban                      | -0.0000                   | -0.0000    | 0.0001        | 0.0001       | -0.0001                   | -0.0001    |
|                              | (0.0000)                  | (0.0000)   | (0.0001)      | (0.0002)     | (0.0002)                  | (0.0002)   |
| Ratio of Males to<br>Females | 0.0035                    | 0.0035     | 0.0127        | 0.0139       | 0.0252*                   | 0.0272*    |
|                              | (0.0027)                  | (0.0027)   | (0.0111)      | (0.0115)     | (0.0140)                  | (0.0143)   |
| Per Capita Wealth (\$1000)   | -0.0001*                  | -0.0001    | -0.0014***    | -0.0014***   | -0.0010***                | -0.0010*** |
|                              | (0.0001)                  | (0.0001)   | (0.0002)      | (0.0002)     | (0.0003)                  | (0.0003)   |
| LFP Rate                     | -0.0045                   | -0.0057    | -0.1165**     | -0.1208**    | -0.0962**                 | -0.0989**  |
|                              | (0.0097)                  | (0.0093)   | (0.0473)      | (0.0493)     | (0.0429)                  | (0.0485)   |
| Individual-Level Controls    |                           |            |               |              |                           |            |
| Age                          | 0.0017***                 | 0.0017***  | 0.0325***     | 0.0325***    | 0.0333***                 | 0.0333***  |
|                              | (0.0002)                  | (0.0002)   | (0.0006)      | (0.0006)     | (0.0005)                  | (0.0005)   |
| Age Squared                  | -0.0000***                | -0.0000*** | -0.0006***    | -0.0006***   | -0.0006***                | -0.0006*** |
|                              | (0.0000)                  | (0.0000)   | (0.0000)      | (0.0000)     | (0.0000)                  | (0.0000)   |
| Literacy                     | -0.0155***                | -0.0156*** | -0.0271***    | -0.0273***   | -0.0244***                | -0.0245*** |
|                              | (0.0017)                  | (0.0017)   | (0.0023)      | (0.0023)     | (0.0021)                  | (0.0021)   |
| N                            | 440.072                   | 440.072    | 519.402       | 510 402      | 547.764                   | 5 17 761   |
| N                            | 440,072                   | 440,072    | 518,493       | 518,493      | 547,764                   | 547,764    |

<sup>\*</sup> See notes to Table 3. Regressions also include individual level controls as in Table 3 and state and year fixed effects.