

Why We Should Not Try to Measure Female Labor Force Participation Before 1900

Joyce Burnette

Professor of Economics, Wabash College

In the US the 1940 census was the first to measure labor force participation rates. Since then female labor force participation rates have been calculated back to the nineteenth century from census data, and there have been many valiant attempts to measure female participation where census data does not exist. Historians recognize the serious measurement issues involved, and are constantly seeking ways to measure labor force participation more accurately.

This paper argues that we should not do so. We have spent so much time trying to correct our erroneous measures of labor force participation that we have forgotten to ask whether it is the measure we really want. I argue that labor force participation rates will not tell us what we really want to know: how women's economic activities, or their independence, or their power within the family, have changed over time. The concept obscures important historical changes and focuses on a distinction whose importance changes over time for men as well as women. While the distinction between work for the market and work for household consumption is an important distinction today, it was less important in the past. Attempts to measure female labor force participation before the twentieth century will inevitably be misleading because the concept of labor force participation is anachronistic. Labor force participation is an ahistorical concept because it chooses an arbitrary dividing line between work and non-work that makes sense for us today, but does not make sense for the past. Therefore, a focus on labor force participation hampers our ability to understand women's work in the past.

I do not claim that labor force participation is a perfect measure for the twentieth century, but because the structure of employment is similar over short periods of time labor force participation rates are less misleading if they are compared over short periods. However, when labor force participation rates are compared over longer periods of time changes in the nature of employment cause those rates to be misleading.

Abandoning labor force participation would not mean we abandon the search to understand women's work in the past, it would just mean that we use more appropriate measures.

The desire to measure labor force participation comes from our desire to understand how women's work has changed over time. Have women entered the labor force recently, or have they always worked? Does women's work follow a U-shaped pattern? However, using a measure that obscures rather than illuminates changes over time will not help us answer these questions. Fortunately, we can frame our questions in more historically appropriate ways.

Definition

The definition of labor force participation is fairly clear. The labor force participation rate is the number of workers who are employed or looking for work, divided by the adult population (the civilian non-institutionalized population 16 and over). The measure assumes you are in one of two states. You have either decided to work, in which case you are either employed or looking for work, both of which count as part of the labor force, or you have decided for some reason not to work. The employed include those who are self-employed and those who work in a family business. The US Bureau of Labor Statistics counts as employed "persons who did any work for pay or profit during the survey reference week; persons who did at least 15 hours of unpaid work in family-operated enterprise; and persons who were temporarily absent from their regular jobs because of illness, vacation, bad weather, industrial dispute, or various personal reasons."¹ The unemployed are people who "do not have a job, have actively looked for work in the prior 4 weeks, and are currently available for work."² Those who are neither employed nor unemployed are out of the labor force. Reasons for being out of the labor force include school, retirement, home production, or simply lack of hope you will find a job.

Labor force participation does not measure "working outside the home." Labor force participation includes work done in the home, as long as it is work for the market, that is, for wages or profit. Today most market work is located outside of the home, but that was not true in the past. For most workers throughout history, work was located in the home. Farmers and artisans produced output in their homes, and only a subset of workers left home to pursue their work.

Labor force participation does not include all productive work. Household labor and self-provisioning are excluded because the output is not sold in the market. Many economists have

¹ www.bls.gov/cps/ifcharacteristics.htm#emp

² www.bls.gov/cps/ifcharacteristics.htm#unemp

noted the fact that excluding home production leads to an undercount of women's work. Atkinson (2012, p. 149) notes that labor force participation is a lower bound on women's work: "true economic activity was considerably greater." Vanek (1973, p. 138) reports that in the 1960s "non-employed" US women worked 55 hours per week in home production. Hours of household production have declined since then, and the gender gap has narrowed, but women still do more housework than men. In 2003, the average woman spent 30 hours per week on housework and child care, while the average man spent only 17 hours (Aguilar and Hurst 2007). Economists usually concede that household production should be included in GDP, but justify the failure to do so by noting that household production, because it is not sold, is difficult to value. Few economists, however, argue that labor force participation should include household production, because we expect labor force participation to measure work for the market not self-provisioning.

The fact that household production is excluded from labor force participation is the result of a historical process that defined housework as unproductive. In the early nineteenth century housewives were considered productive workers. In Britain the 1861 census categorized wives and widows "not otherwise described" in the Domestic Class, and not in the unoccupied class. By 1881, however, wives were categorized as "unoccupied" (Folbre 1991). The categorization of housework as unproductive seems to result from a combination of economists who did not value women's contributions and male workers who wanted to exclude female competition and raise their own wages by arguing for a "family wage" (Folbre 1991, Quataert 1985).

The Bureau of Labor Statistics definition of labor force participation is generally the definition used, though occasionally we find a historian working with a different definition. Hareven (2000, p. 12) notes that many urban households took in boarders and lodgers, and that "the income from boarders contributed to the payment of a mortgage and, in some cases, enabled the wife to stay out of the labor force." This implies that taking in a boarder did not itself cause these women to be "in the labor force," presumably because they remained in the home. The Dept. of Agriculture surveys used by Vanek (1973, p. 90) count food preparation for boarders as part of housework, even though these meals were sold. Such deviations from the official definition usually result from the fact that we associate market work and "participation" in the economy with work outside the home. Costa (2000, p. 103) seems to favor defining female participation as work outside the home when she notes that measuring labor force participation

using census occupations leaves out "unpaid farmwives, boarding-house keepers, and industrial homeworkers", but excuses the omission because "their exclusion does not affect the measurement of women's paid work outside the home." Maybe what we really want to know is whether women did their work in the home or outside the home. If so, labor force participation is not the correct measure to use.

Measuring Female Labor Force Participation before 1900

The desire to measure labor force participation before 1900 stems from the fact that focusing only on the twentieth century provides a very misleading picture of women's work. Measured female labor force participation rates were quite low around 1900 and rose substantially over the century. Many economists have noted this striking rise, and some have attempted to explain it (Costa 2000, Fernandez 2013, Margo 2016).

However, starting the story in 1900 leads to a very misleading picture of women's work because the periods around 1900 had unusually low levels of female participation. Female labor force participation appears to have a U-shaped relationship with economic development, first declining and then increasing (Richards, 1974; Goldin, 1995). Measures of female labor force participation in the nineteenth century generally show declining participation. For the US, the nadir was around 1870 (Figure 1). Britain seems to follow a similar path, with participation reaching its lowest point at the beginning of the twentieth century (Figure 2 and Hatton and Bailey, 2001).

Most measures of labor force participation are based on census data. *The Historical Statistics of the United States* (Carter 2006) reports female labor force participation beginning in 1800 (Figure 1). These estimates are based on occupations reported in the census, or, starting in 1984, the Current Population Survey. Before 1940 the current concept of the labor force did not exist, and census measured whether individuals had "gainful employment" (Goldin, 1995, p. 78). Figure 2 reports the percentage of females who were counted as "occupied" in the 1841 to 1951 British censuses, from B. R. Mitchell (1962).³ Figure 3 presents female labor force participation

³ The rate for 1841 is given as a single point and not connected to the other rates because the 1841 and 1851 rates are not comparable. Instructions for the 1841 census specifically state that "The professions &c. of wives, or of sons or daughters living with and assisting their parents but not apprenticed or receiving wages, need not be inserted," while later censuses include occupations such as farmer's wife and farmer's daughter (Higgs, 1989, p. 81).

rates from Sweden; a break in the series occurs when estimates change from gainful worker measures to the modern concept of labor force participation. The increase in Sweden is even greater than in the US, from a low of 17.8 percent in 1890 to a high of 82.3 percent in 1990 (Stanfors, 2014, p. 516). In France the decline seems to have occurred later. For 1850, Grantham (2012, p. 110) finds female participation rates near 70 percent for women between the ages of 20 and 60, and above 60 percent for married women. French female labor force participation rates reached peak about 1900 and then fell between 1900 and 1960, after which they rose and recovered most of the loss by 2000 (Costa 2000 Fig. 2). For Catalonia in the 1920s, Borderias (2013) finds a female labor force participations rate of 46 percent.

Material other than censuses has also been used to measure participation. Goldin (1990, p. 47-8) demonstrates that the participation rates of female heads of household in Philadelphia declined between 1791 and 1860. Horrell and Humphries (1995) use budgets of poor families to measure female participation from 1790 to 1865. They measured participation as either having a recorded occupation or having positive earnings, and also find a downward trend in female participation during the nineteenth century.

While census data is commonly used to measure participation, there is general agreement that the census data seriously underestimate women's work.⁴ Census occupations are more a measure of social status than of economic activity (Higgs, 1987; Abel and Folbre, 1990; Folbre, 1991). Historians have identified large number of women who appear in employment records of firms or farms do not have occupations in the census (Humphries and Sarasua, 2012, pp. 48-9; Miller, 1984; Verdon, 2002, p. 117).

In response to these flaws, a great deal of effort has been expended to correct under-enumeration of women's work in the censuses. Abel and Folbre (1990) add to those counted as working women taking in boarders and family labor on farms and in other family businesses, and they correct for the undercounting of women in manufacturing. These corrections increase the labor force participation of married women in 1880 from 10 percent to 47 percent in Montague, Massachusetts, and from 10 percent to 68 percent in Easthampton, Massachusetts. Goldin (1990,

⁴ An exception is Hatton and Bailey (2001), who find that the British censuses of 1911-1931 accurately measure women's work. Shaw-Taylor (2007) claims that the British census accurately recorded what it wanted to measure, which was only the regular employment of women and children. However, such a definition of employment does not match the most common definition of labor force participation, which includes any work even if irregular.

p. 44) suggests estimates that the participation rates of white married women in 1890 should be 12.5 percent rather than the 2.5 percent given in the census. Burnette (2004) suggests that the portion of English agricultural day-labourers who were women should be 11 percent rather than the 5 percent reported in the census. The corrections are large enough that they might change our conclusions about trends. Humphries and Sarasua (2012) suggest that the apparent U-shape participation pattern is the results of the extensive underestimation of women's work in the past.

However, effort put into correcting our measures of labor force participation may be mis-spent if the concept is fundamentally flawed. We have spent so much time demonstrating that our measures of labor force participation are inaccurate that we have forgotten to ask whether it is the right measure in the first place. For the most part historians behave as if the problem is the data and not the concept of labor force participation. Measuring labor force participation is the goal, we just need to improve our techniques (Abel and Folbre, 1990; Borderias, 2013; Schmidt, 2014, p. 304) In this paper I wish to go beyond the claim that the census data does not accurately measure participation, and claim that the concept of labor force participation is not appropriate for the past. This means that finding better sources to measure participation will not solve the problem. We need to find different concepts to describe the work women did.

Kinds of Work

There are many different ways in which we could define work. Labor force participation privileges one particular definition, and one that imagines only two possible states, in the labor force or out. We can imagine a continuum of work starts arranged according to female independence. At one extreme, women work for wages outside the home, and at the other extreme some women might simply enjoy leisure. Between the two extremes there are a number of different degrees of participation, each of which implies a different relationship with family and the market. Let's examine six different degrees of labor market participation, generally ranked from those offering women the most independence, to those offering the least.

1. Women working outside the home, not with or for family members.

Most women in the labor force today are working outside the home, with and for people they are not related to. They might be employees working for wages, or they might be self-employed, working for profit, and possibly employing others. Women who work in this situation are the most independent from their families. The market, not the family,

determines pay and working conditions. These women have a good bargaining position in the household because their livelihood does not depend on the family.

2. Women working inside the home for wages or profit, not with or for family members.

Some women worked for the market, but work was located inside the home. In cottage industry individuals received piece-rate wages for work done in the home. This category includes spinning and weaving before these moved into factories, lace-making and straw-plaiting in the early nineteenth century, and trades such as box making, brush making and sewing in the early twentieth century (Bean, 2015). Many women worked from home as entrepreneurs rather than wage earners. Some were widows or spinsters, but there were also married tradeswomen who operated businesses that were separate from their husband's business (Whittle, 2014; Erickson, 2008). While these women spent more time in the home than those in category 1, they still earned an independent income, giving them bargaining power within the family.

3. Women working outside the home, but with and for family members.

There are a number of industries where it was common for individuals to work with family members even though the location of work was outside the home. Sometimes children worked under the direct supervision of their fathers. In mining adult male hewers often employed their own wives and children to transport the coal (Humphries, 1981). In cotton spinning, mule spinners hired piecers to assist them, and often hired their own children (Collier, 1964). Even though work took place outside the home, junior members were still subject to family authority, and did not receive independent pay.

4. Women working inside the home assisting family members.

This category is generally called unpaid family labor. Philipps (2008) argues that "unpaid market labor" is different from both paid labor and from household production. When a wife engages in unpaid market labor the output of her labor benefits the market activities of her husband. This type of work might include women assisting husbands who worked in cottage industry, as women who wound bobbins for their weaver husbands, or women assisting men who were self-employed as artisans, shopkeepers, or farmers. The English cabinetmaker James Hopkinson praises the business abilities of his wife in his autobiography (Hopkinson, 1968, p. 96).

5. Women working inside the home producing goods consumed by the family.

Some of the things produced by women are never sold in the market but are consumed directly by the family. Today cooking, cleaning, and childcare are frequently home produced, though sometimes they are purchased in the market. In the past a wider range of goods were self-produced; a greater percentage of the food and clothing consumed was produced at home, as well as other goods such as soap, candles, brooms, and furniture. Goldin (1986, p. 575-6) reports that in the 1920s women in western farm families did an average of 9 to 10 hours of agricultural labor per week, and spent on average five hours making clothing. Vanek (1973, p. 79, 138) finds that homemakers worked 51 to 56 hours per week in the 1920s and 55 hours per week in 1965-66. Such women are economically productive but are not paid for their services so they have a weak bargaining position.

6. *Women enjoying leisure.*

Women in this category were not engaged in economically productive activity. This is what Arthur Young meant when he commented that the employment for women was "drinking tea" (Young, 1771, p. 306-7) and what was meant when the Massachusetts Census of 1875 classified 4786 women as "wives simply ornamental" (Folbre 1991, p. 478). Pinchbeck (1930, pp. 33-37) also suggests that during the nineteenth century farmer's wives moved from productive labor to leisure, as they retired from the dairy house to the parlour where they learned to play piano. Even when this state was the ideal of femininity, few women were actually in this state.

The concept of labor force participation groups all the women in categories 1 through 4 as "in the labor force" and all those in categories 5 and 6 as "out of the labor force." This categorization both obscures important changes in women's work and leads to changes in labor force participation driven more by the decline in self-provisioning than by gender roles.

Using the market as the dividing line ensures that two women doing the same tasks could be categorized differently. Cooking, cleaning, and caring can be market work, but only if these activities are sold. A woman taking care of her own children is not working, while a woman who takes care of other people's children, and earns money from that, is working.⁵ While caring for the sick is usually part of family life, it could be market work. Williams (2004) documents that women were paid to act as nurses for the sick. The exact same work, then, could be done by women in the labor force and women out of the labor force.

Privileging the market the defining feature of "work" not only undervalues women's contributions, but also uses something that changes over time as the dividing line. The concept of labor force participation, in equating work with participation in the market, assumes the most economic activity is channeled through the market. While markets have existed throughout human history, the percentage of output that goes through the market has increased over time, and the amount of work falling in category 5 has declined over time for men as well as for women. As late as the 1920s two-thirds of the food consumed by US farm families was self-produced (Vanek, 1973, p. 10). For early homesteaders the percentage was surely greater. The family of Laura Ingalls Wilder produced or caught all of its own food, and engaged in the market only occasionally, trading furs for cloth (Wilder, 1971). Le Play (1879) also reports European households where the male head of household is engaged mainly in self-provisioning. For

⁵ This problem is so well known that it appears in our textbooks, generally in relation to what counts in GDP. See Gregory Mankiw, *Essentials of Economics*, 5th ed., South-Western, 2009 p. 338.

example, Jean Manech Belescabiect, 54, was a peasant farmer in Labourd, France (Le Play, 1879, vol. 5, ch. 5). He spent 253 days per year working on his own land, 32 days providing transportation services for others, and 20 days at markets. While he was engaged in the market and sold a portion of the farm's output, two-thirds of the output of the farm was consumed by the family. This means that Jean spent 169 days producing goods consumed by the family (category 5). Jean spent more than half his time "out of the labor force". Similarly, Giuseppe of Tuscany spent 260 days working on his farm (Le Play, 1879, vol. 4 ch. 3). Since 36 percent of farm output was sold in the market, he spent only 94 days in the labor force, and 166 of his working days were spent "out of the labor force." If we use the market test to determine female participation rates, we must also do the same for men. The result would be lower participation rates for men in the past.

The further back in history we go, the worse the problem becomes. In the seventeenth century at least 80 percent of English farm labourers kept animals, and in the sixteenth century the figure was closer to 90 percent (Everitt, 1967, p. 415). Whittle (2014, p. 298) suggests that "A vision of England's early modern economy that excluded unpaid work would exclude the majority of productive activity, and no historian would propose such a thing." If excluding the unpaid work of men is misleading, then surely excluding the unpaid work of women is misleading as well. This is less of a problem today, when category 5 is relatively small, but in the past it becomes a greater problem.

By grouping together different types of work, labor force participation rates conceal important changes within both those in the labor force and those out of the labor force. By creating a fairly arbitrary dividing line between what counts as work and what does not count as work, labor force participation creates a misleading sense of sameness over time.

There are two different stories that have been told about declining labor force during the nineteenth century. One suggests that women withdrew from market work into leisure, and one suggests that women withdrew from market work to devote more time to housework. Pinchbeck (1930, p. 33-37) argues that increased prosperity meant that farm wives were able to enjoy more leisure. Mokyr (2000) argues that the increased demand for cleanliness meant an increase in the demand for home production work (category 5). These two explanations have very different implications for women, though they would produce the same decline in labor force participation

rate. Labor force participation, then, is not rich enough a concept to tell us what we want to know about women's work.

By lumping categories one through four into one category, "in the labor force", we conceal important changes such as the movement of work outside the home. Over time the relative importance of various categories has shifted. Category 1 has grown at the expense of 2 through 4, so that most women who are "in the labor force" today work outside the home and not for family members. Surely this increased independence was important for women, and deserves some attention from the historian.

The concept of labor force participation has some problems even today. The assumption that housework is unproductive is misleading and devalues women's contributions. Even today it is not always clear whether women are participating. Phillips (2008) gives examples of legal cases where the court is asked to decide whether a spouse is providing a benefit to the husband's business. While these problems are relatively small in the twentieth century, they become more severe when we try to use labor force participation to measure the activities of women before 1900. To understand women's work before 1900 we should use different measures.

Work Intensity

The binary nature of labor force participation also disguises all differences in work intensity. Women who work part-time are treated the same as those who work full-time. This was more of a problem in the past because the duration of so many jobs was so brief. In 1831 Amy Naylor worked a total of 6.5 days for a farm in Derbyshire (Sheffield Archives OD1518). Was she in the labor force? According to the CPS definition, part-time work is included. Any amount of work for pay, or 15 hours in unpaid family labor, are enough to get you in the labor force. Since the CPS measures participation weekly, seasonal workers would appear as in the labor force only in the weeks they worked. Census data, based on occupations, was more likely to miss part-time and seasonal work. Horrell and Humphries (1995), examining poor English families during the Industrial Revolution, find that, while approximately half of wives made positive contributions to the family budget, they contributed only about seven percent of family income. While some of the difference was the wage gap, women's contributions were low enough that their hours of work must have been lower too.

The fact that labor force participation treats part-time work the same as full-time work means we will miss important changes over time. For the period 1963 to 2005, women's labor force participation rates in Sweden increased from 49 percent to 76 percent, and the total number of women in the labor force increased 65 percent. However, the total number of hours worked by women increased only 29 percent. The labor force number overestimate the increase in women's contribution because average hours of work decreased from 36 hours per week to 30, and because women are counted as employed even when they are temporarily away from their job (Stanfors, 2014, p. 526-7). Simply looking at participation rates leads us to overstate the increased in women's work.

Should we correct census figures for the Amy Naylor's who worked only brief periods? Shaw-Taylor (2007) suggests that the British censuses intended to record only regular work, and was not interested in recording the work of Any Naylor. Indeed, it's not clear that someone who works 6 days a year should have the same designation as someone who worked year-round. This suggests that we need more subtle indicators of women's work. Measures of days worked per year, or income as a percent of family income, would pick up differences between the women who worked 6 days and the women who worked 300 days. Labor force participation is ill equipped to measure such differences.

Work Continuity

While the concept of labor force participation is designed for a world where people have jobs, historically most women, and most men, had work but not jobs. A job is a long-term wage-labor relationship with a specific employer. Throughout most of history, most workers produced for themselves or for the market, but not for an employer. Farmers sold their output. Some craftsmen were journeymen, who were employed by others, but before industrialization masters were more common. A woman who milks the cow she grazes on the common engages in work, but does not have a job.

The concept of a "job" as a continuous and exclusive activity is ahistorical. Abel and Folbre (1990) claim that "The very notion that individuals have only one occupation is androcentric." We could add to that the idea that either men or women have only one occupation is ahistorical. In the past men as well as women had multiple occupations. In the late fourteenth century English law attempted to decree that craftsmen follow only one occupation, but this did

not reflect reality (Swanson, 1988, p. 33). Court records reveal men identified as glazier and cordwainer who were prosecuted for illegally selling fish, and probate records of a tailor, a chandler, and a barber reveal that they owned inns (Swanson, 1988, p. 34-36). Based on probate inventories from an English town in the 16th and 17th centuries, Whittle (2014, p. 290) finds that the goods of the median married man showed evidence of four different occupations, while the goods of the median widow showed evidence of two different occupations. Even allowing for the goods of the married men to represent the occupations of both himself and his wife, we would conclude that it was typical for both men and women to have two different occupations.

Even when work clearly moved outside the home, it did not have the permanence that is implied by "labor force participation." Factory women moved in and out of work; sometimes they were employed and sometimes not. Among female weavers at a US textile factory, 38 percent of women and 46 percent of men who worked in the weaving room worked less than 48 days during the year. The average weaver worked 105 days in 1883 (Pepperell Manufacturing Co. Collection, Baker Library, vol. EE1). Even long-term employment relationships were not continuous. A worker might work for an employer for a few weeks, and then not for number of weeks, and then return to working for the same employer. For example, Sarah Haynes worked as a weaver at the Pepperell Manufacturing Company from March 14 to June 30, 1883. She then disappeared for five months, and then re-appeared December 6, 1883 (Pepperell EEI). Of the women who had worked had started in the mills between 30 and 35 years prior to a 1923 survey, half of them had less than 25 years of "actual time worked" in the mills, due to spells out of employment (Women's Bureau, 1926, p. 146). Such work patterns defy notions of hiring and firing, and make it difficult to determine whether someone was "in the labor force" on anything but a daily basis.

Over time jobs have become more permanent. By the twentieth century women who quit their factory jobs found it difficult to return to the same job (Hareven, 1982, p. 130). The increased permanency of employment has led to increases in the number of workers who are employed but not actually working. This includes not only relatively short vacations, but also family leave, which can last months. While in the past women may have quit their jobs for a birth and then returned to employment, and would have been out of the labor force, many women today can maintain their employment ties while taking time off. In Sweden, for example, the percentage women who are in the labor force is much higher than the percentage of women who

are actually at work. For all women in 2005, 76.1 percent were in the labor force, but only 58.0 percent were actually at work. Among women with a child under age six or younger, 81.4 percent were counted as in the labor force, but only 49.9 percent were actually at work (Stanfors, 2014, p. 527; see also Jonung and Persson, 1994, p.40). Thus the increase in long-term attachments between firms and workers has led us to over-estimate the increase in labor force participation over time.

Conclusion

As historians of women's work, we should stop asking whether women worked (they did) and start asking what kind of work they did, for whom they worked, and whether they derived economic independence from their work.

It was work for the market, rather than for the household, that allowed women the independence that contributed to late marriage, high human capital, and economic growth. In England and the Netherlands, women's work for the market allowed them independence from their parents and choice in who they married. In the early sixteenth century the Dutch woman Janne Heyndericx moved out of her parents' house and lived on her own wages while waiting for the man who had promised to marry her to do so (De Moor and Van Zanden, 2010, pp. 1-2). In Germany, by contrast, women worked, but their work did not gain them independence. Unmarried women were not allowed to be household heads, and the community could prevent marriages (Ogilvie, 2003, pp. 52, 270-1) For example, in 1796 the Wildberg court ordered Friderika Mohlin, age 46, leave her rented lodgings and return to her father's house, and would not allow her to marry because the intended groom did not have enough wealth (Ogilvie, 2003, p. 135). The crucial difference between these two women was not whether they worked, but whether they were allowed to choose where they lived and whether and whom they married.

Opportunities for women to work are thought to be important for fertility decisions.⁶ However, different types of work imply different opportunity costs of children. Work that is located at home and highly flexible is easier to combine with childcare than work that is outside of the home and inflexible. Thus, women's fertility may be influenced by the *types* of work

⁶ In Galor and Weil's (1996) main model child care is incompatible with women's work, and women must choose whether to spend their time raising children or working. In an extension they allow for a "nonmodern production sector" where childrearing can be combined with work.

available as well as by the wages they can earn. Once again, we need to know more than just whether women were in or out of the labor force.

Whatever question we wish to ask about the past, labor force participation is not the best way to answer that question. If we are concerned about the total amount of work women did, labor force participation won't tell us since it does not include self-provisioning, and we should measure trends in leisure instead. If we are interested in what percentage of their time women spent doing domestic work, or what percent of their time they spent outside the household, we should ask those questions directly. We might be interested in labor force participation because we think that having an independent income was essential for women's power within the household (Goldin, 1990, p. 11, 42). In that case it makes more sense ask directly how women's power over assets and income changed over time, and laws such as the Married Women's Property Law might be as important as well as changes in women's cash income.

We should abandon the concept of labor force participation for periods before the twentieth century because the concept obscures more than it illuminates. This does not mean that we should abandon the attempt to discover what work women did, but we should do so in different ways, ways that do not privilege market over nonmarket work. We should examine how women spent their time, and the relative importance of wage labor, self-employment, and unpaid family labor. Alternative questions include: What portion of household consumption was produced within the household and what portion was purchased? What portion of household money income was earned by women? What portion of women's output was sold in the market? What did women spend their time doing, and how does this time allocation compare to that of men? How much leisure did women enjoy? What types of work did women do? Did they combine many different kinds of work? Where did women do their work? What portion of their work did women do with other family members? What portion of women's work, paid or not, was in cooking, cleaning, and caring activities?

Anachronistic measures of labor markets make it difficult for us to see clearly the work that women did in the past. These problems existed for men's work as well, but they are particularly acute for women's work. Women, when their activities do not fit into our expectations of work, are more likely to be assumed to be unproductive. If we give up our preconceptions about what work is, we will more easily see how important women were in the economy.

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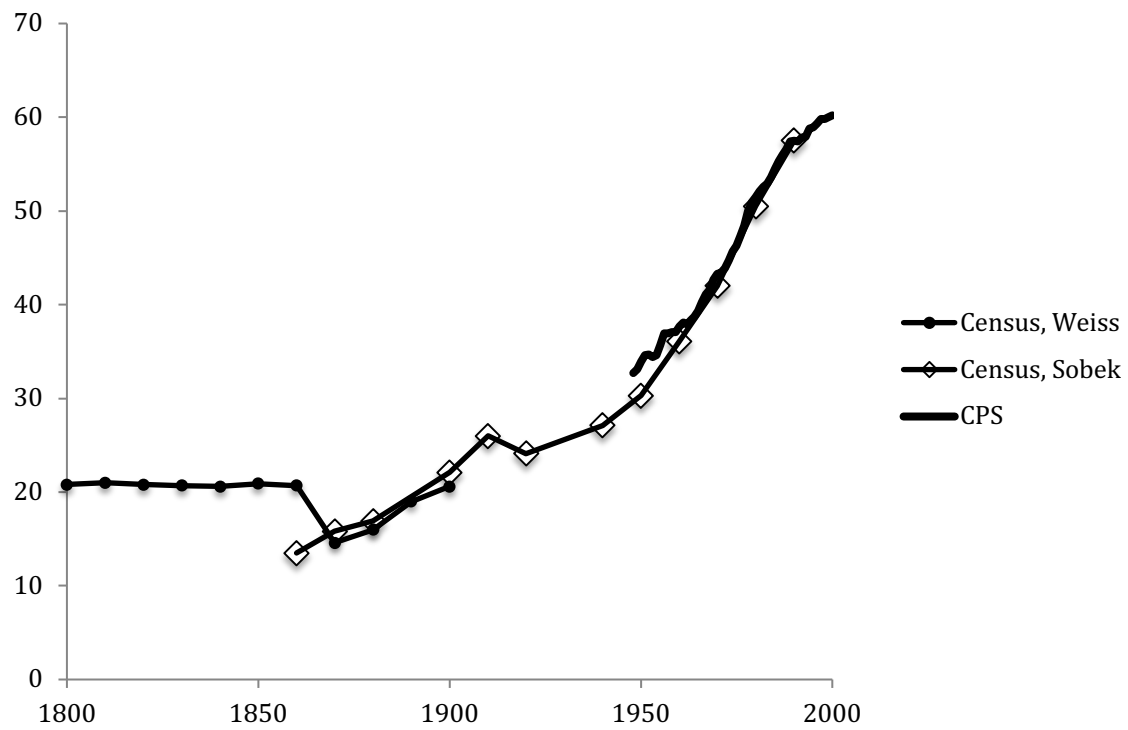
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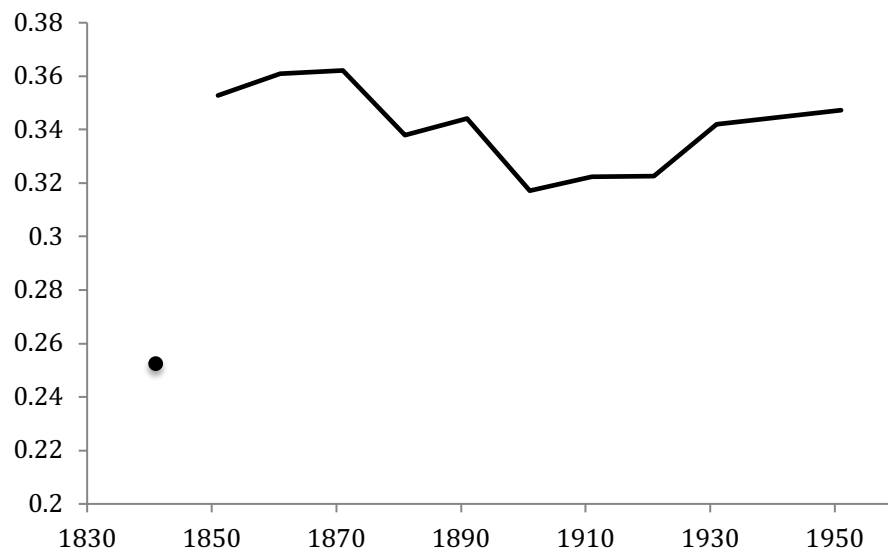
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Figure One
US Female Labor Force Participation Rates



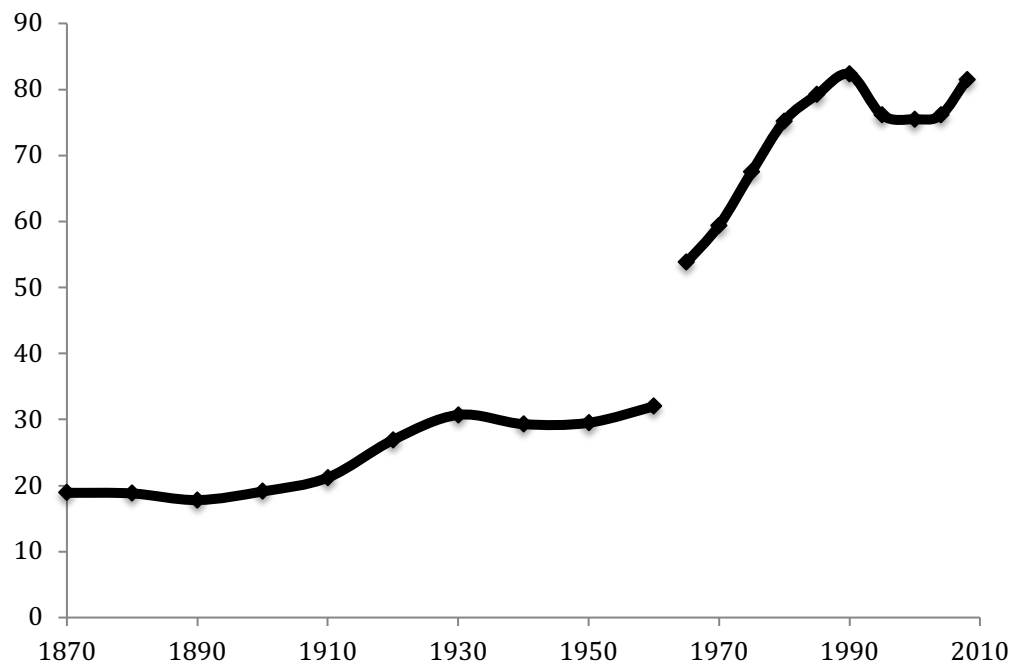
Source: Carter (2006).

Figure Two
British Female Participation Rates



Source: Mitchell (1962) p. 60.

Figure Three
Swedish Female Labor Force Participation Rates



Source: Stanfors (2014)