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United States: An Analysis of Unreported
Family Workers**

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ISSN: 2365-9793

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ABSTRACT

Women at Work in the Pre-Civil War United States: An Analysis of Unreported Family Workers*

Rates of labor force participation in the US in the second half of the nineteenth century among free women were exceedingly (and implausibly) low, about 11 percent. This is due, in part, to social perceptions of working women, cultural and societal expectations of female's role, and lack of accurate or thorough enumeration by Census officials. This paper develops an augmented free female labor force participation rate for 1860. It is calculated by identifying free women (age 16 and older) who were likely providing informal and unenumerated labor for market production in support of a family business, that is, unreported family workers. These individuals are identified as not having a reported occupation, but are likely to be working on the basis of the self-employment occupation of other relatives in their households. Family workers are classified into three categories: farm, merchant, and craft. The inclusion of this category of workers more than triples the free female labor force participation rate in the 1860 Census, from 16 percent to 56 percent, which is comparable to today's rate (57 percent in 2018).

JEL Classification: N31, J16, J21, J82

Keywords: women, labor force participation, occupational attainment, unpaid workers, unreported family workers, 1860 Census

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* The authors would like to thank Michelle Pratt and Jeff Bloem of the University of Minnesota IPUMS Team for their assistance in understanding the 1860 Census IPUMS data. We also appreciate the comments on an earlier draft of this paper received from Carmel U. Chiswick and Evelyn Lehrer. Financial support for this project was provided by George Washington University.

Women at Work in the Pre-Civil War United States:
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“We pray your honorable body... to make provision for the more careful and just enumeration of women as laborers and producers...”

--Letter from the officers of the Association for the Advancement of Women to the U.S. Congress, June 15, 1878¹.

I. Introduction

This paper uses the 1860 Census of Population – the earliest available Census data that sought to include information on the occupations of free women – to delve into free women’s labor market activity in the US in the mid-nineteenth century.² By linking the responses for each individual to those of relatives living in their household, we will infer to what degree women were likely acting as unreported family workers and, thus, create a more accurate picture of women’s labor force participation.

The findings from this study will expand the current knowledge about free women’s labor force participation in pre-Civil War America. This is an important step in understanding where we were and how far we have come in terms of female labor market involvement. Section II presents an overview of the current estimates of female labor force participation in the mid-1800s and summarizes several of the challenges in computing these estimates. Section III presents a synopsis of the 1860 Census and describes the data used in this study. The methodology for identifying family workers and the results of that effort are provided in Section IV. The augmented occupational distribution of women is discussed in Section V. Finally, Section VI provides a summary and conclusions.

¹ U.S. Congress, Senate (1878).

² The 1850 Census was the first census to include a question on occupation, but only for males. The 1850 and 1860 Censuses did not ask the occupational activities of slaves.

II. Current Estimates and Issues

Our current understanding of labor force participation and occupational choice in the nineteenth century United States is speculative, at best. We must rely on data that is subject to numerous errors and biases, as well as limited by the level of technology and social constructs of the time. In fact, many researchers of early US labor market patterns focus on the period from 1890 forward, as the Census data before 1890 “are generally ignored today on the ground that they are grossly inaccurate” (Smuts, 1960, p. 75).

Census Treatments

The question as to how – if at all – to address women’s market and non-market contributions to the economy appears to have plagued Census officials during the latter half of the nineteenth century. Occupation was not recorded for free women in any Census prior to 1860, and even then it was done with many caveats, such as the necessity of “regularly” engaging in such work or the requirement that distinct wages or salaries be earned (conditions which were not imposed on male labor).³

Additionally, the concept of an occupation at the time was more strongly linked to social identity than actual economic activity. Further, working – particularly for pay – was thought to lower women’s social status. Given the negative social connotations for working women, underreporting of occupation by women themselves or by the respondent representing the household was rampant (Smuts, 1960; Folbre & Abel, 1989). This is, in part, because a woman’s primary social identity was to be a wife or daughter. It was expected that she would also take on the necessary duties of running the household, supporting her husband or father’s

³ See Folbre & Abel (1989) for a discussion of the Census Bureau’s collection of women’s employment data.

occupation, and assisting with providing for the family wherever possible. For example, women regularly contributed to the household (in terms of labor and finances) by engaging in “industrial homework” (light manufacturing done at the woman’s home), taking in boarders, and participating in agricultural production (Smuts, 1960; Folbre & Abel, 1989). However, this labor was largely viewed as an incidental feature of women’s lives and, in contemporary perceptions, did not equate to the market work of men.

This attitude was so ingrained that the Census office issued a statement with the 1870 Census of Population Report addressing the underenumeration of women:

“It is taken for granted that every man has an occupation... It is precisely the other way with women and young children. The assumption is, as the fact generally is, that they are not engaged in remunerative employment. Those who are so engaged constitute the exception, and it follows from a plain principle of human nature, that assistant marshals will not infrequently forget or neglect to ask the question.”⁴

This indicates it was common practice for Census enumerators to largely ignore even the possibility of women having an occupation, which can help explain the exceedingly large number of blank entries for women’s occupations in the 1860 Census data. Between the hesitancy to report females having an occupation due to social stigma, the discounting of female labor as part of their daily duties rather than reporting an occupation, and the omission of even requesting female’s occupational status, it is no wonder that official accounts of free female labor force participation in the nineteenth century are so low, about 11 percent.

Estimates Using Aggregate Data

There have been a number of attempts by economic historians to revise approximations of labor force participation – for both males and females – from the nineteenth century.

⁴ This is taken from a report on the 1870 Census of Population, U.S. Census (1873), p. 375.

Although each of these estimates is useful in attempting to provide a more accurate picture of labor force participation despite the lack of thorough and reliable data, each also relies heavily on assumptions and extrapolation. The primary methodology used was to assume that the labor force participation rate would be equivalent to some number based primarily on estimates of free male labor force participation from previous censuses and apply that to the estimated size of the population.

Lebergott (1964, 1966) provided one of the earliest revised estimates dating back to the beginning of the nineteenth century. He, however, largely ignored female labor by claiming that women's primary status was probably that of a housewife. He also declined to estimate any female labor in agriculture, citing the fact that women were not included in agriculture counts in the 1820 or 1840 Censuses and only nonwhite women in the South were included in agriculture in 1860, 1870, and 1880. As a result, he made allowances for free females in only three categories: domestic servants (estimated based on the number of white families), employment in textiles (estimated based on consumption of cotton), and employment in clothing trades (estimated as "an arbitrary sum equal to domestic service") (Lebergott, 1966, p. 139). For 1860 estimates, Lebergott applied the ratios of gainfully employed males from 1850 to the 1860 white male population, estimated a count of employed nonwhite free males in 1860, and subtracted that total from the 1860 Census data available to him on the number of gainfully employed individuals. Lebergott (1966) arrived at an estimate of between 895,000 and 950,000 free women ages 15 and older in market work in 1860, which comes to roughly an 11.2 to 11.9 percent female labor force participation rate using the free female population age 15 and older from the 1860 Census report.

Weiss (1986) provided revised estimates, largely based on Lebergott's calculations but with the intent of modifying some of the contradictory assumptions and using newly available data. For the adult (ages 15 and over) female labor force, the workforce was calculated as the differences between the 1860 Census count of gainfully employed individuals and Weiss's estimate of the free male workforce, resulting in roughly 840,000 gainful free female workers (Weiss, 1986). Although, he notes that this figure excludes students, nuns, and sisters of charity. This results in a roughly 10.5 percent female labor force participation rate based on his calculation of total female population age 15 and older as 7,983,000. Weiss later published another revised estimate, citing the 1860 adult female labor force participation rate as 11.3 percent (Weiss, 1992). However, none of these estimates addresses the gross undercounting of female labor force participation, particularly in the agricultural sector, as they rely primarily on recorded occupational information in Census data.

This oversight was addressed in part by Folbre and Wagman (1993) when they provided revised estimates of female work force participation, notably including housework and other non-market work.⁵ Yet, housework is not what we typically think of when we discuss labor force participation. We have in mind productive activities that enhance a family's economic well-being, either directly or indirectly, related to a family's or household's economic activities over and beyond producing in the household for the household's own use.

⁵ Folbre and Wagman (1993) find that, based on the Massachusetts state census, although only 28.6 percent of women in 1885 listed "gainful employment," this proportion increased to 89.3 percent of women (age 14 and over) when women "providing household services to family members" were included, which was comparable to the male rate of 85.7 percent (Folbre & Wagman, 1993, p. 278). Using this as the basis for computations for the country as a whole results in a 72.1 percent non-market participation rate for women and an 83.4 percent total (market and non-market) female labor force participation rate, the difference being about 11 percentage points.

A New Approach

The analysis developed in this paper takes a different approach by attempting to actually identify those individuals who were not properly enumerated in the Census. This is done using a different set of assumptions based on the types of informal work in which individuals engaged and relying on occupational data of individuals within the same household. Further, this paper defines labor force participation as engagement in either formal or informal market work, as distinct from home production. We do not discount the extraordinary amount of labor required to run a home in the nineteenth century (from cooking and cleaning for all household members without the modern conveniences to managing domestic servants employed in the household); however, in order to be more consistent with later definitions of the concept of unpaid family workers, we aim to identify only those that were likely to be engaged in production for the market versus for their personal/family consumption.

Our revised estimates are computed using the microdata file on free people from the 1860 Census of Population.

III. An Overview of the 1860 Census of Population

The 1860 Census of Population was the Eighth Census of the United States. Census Day, or the date on which enumeration began, was June 1, 1860. Over 99 percent of the Census was enumerated by the end of October of 1860, although some enumeration occurred through February of 1861. The Census was completely enumerated before the start of the US Civil War in April 1861.

The 1860 Census questionnaire consisted of: Schedule 1 (population schedule for free inhabitants), Schedule 2 (population schedule for slaves), manufacturing schedule, agricultural

schedule, and mortality schedule.⁶ Schedule 1 included 14 questions for each individual, including a question on occupation. The enumerator was instructed to list the “profession, occupation, or trade of each person, male and female, over 15 years of age” (US Census, 1860, p.15).⁷ Although clearly instructed to list the occupation of females, almost 78 percent of the entries for occupation for females ages 16 and older were left blank, versus only about 11 percent of those for males. This omission is likely due, in part, to the issues related to underreporting and enumerator bias, as discussed in Section II.

The total population of the United States, both free and slave, according to the 1860 Census report was 31,443,321. Of those, 48.8 percent were female. Almost 86 percent of the population was listed as white, with the remainder being slaves (12.6 percent), free colored (1.6 percent), and Native Americans (“Civilized Indians” in the language of the 1860 Census, 0.1

⁶ The Schedule 2 on slaves did not inquire into their occupation or work assignments.

⁷ There is no information in the Census records on the respondents’ current employment status or number of hours worked. For the purposes of this study, all individuals with a recorded gainful occupation are considered to be participating in the labor force.

percent).⁸ The total free population numbered 27,489,561. Just over 15 percent of the free population was foreign born (53 percent of who were male). There were 8,529,192 free males, ages 15 and older, and 7,996,657 free females of that age group. There were 8,287,043 individuals with a recorded occupation – approximately half of the working age population.⁹

This paper uses the data from the one-percent 1860 Census of Population Integrated Public Use Microdata Sample (IPUMS) by the Minnesota Population Center at the University of Minnesota. These microdata, originally released in 1998 and substantially updated since then, were not available to earlier researchers. This file contains the data recorded for each individual as reported, as well as constructs a number of other variables such as marital status, number of children, and ages of children, deduced from the order of individuals listed on the Census

⁸ The racial distribution of the free population in the 1860 Census was (percent):

	Male	Female
White	97.9	97.9
Black / African American	1.0	1.2
“Mulatto”	0.5	0.7
American Indian (“Civilized Indians”) ^a	0.2	0.2
Chinese	0.4	0.0
Total	100.0	100.0

Detail may not add to total due to rounding.

^a “Civilized Indians” was the term used in the 1860 Census Report to define Native Americans who were taxed by the US government and “have renounced tribal rule, and who under state or territory laws exercised the rights of citizens” (US Census, 1860, p. 14). Only a small portion (approximately 13 percent) of the Native American population was included in this count. While not enumerating the Native Americans who “retained tribal character,” the Census did provide a count of those individuals by state or territory. There were 44,021 enumerated Native Americans in the Census and 295,400 who were not enumerated. The largest population was in present-day Oklahoma, which was then termed “Indian Territory” or, alternatively, “west of Arkansas.” We appreciate the assistance of historian Anne F. Hyde on this footnote.

Source: 1860 Census of Population, one-in-a-hundred, IPUMS, Minnesota Population Center, University of Minnesota

⁹ These figures are taken from the 1860 Census Report, Recapitulation of the Tables of Population, Nativity and Occupation (1864).

enumeration forms, as well as names, ages, etc.¹⁰ Further, the IPUMS data link the responses for each observation to the individual's presumed head of household, mother, father, or spouse, if available for those living in the same household. This allows us to perform analysis not only based on the responses provided for a given individual, but also based on the responses provided for other key members of their household. For example, we are able to filter the data by identifying women with no listed occupation who lived in a household with a relative whose occupation fit into a given category; this is a key component of our ability to identify family workers.

Although the data are organized by household, a household may contain more than one "family."¹¹ In the 1/100 sample, 71 percent of the people lived in a single family household, 16 percent lived in a two family household, 6 percent in a three family household, and 7 percent lived in household with four or more families.

This study takes advantage of the wealth of microdata provided in the IPUMS file. The file includes data by individual exactly as it was recorded by the census enumerator in 1860 (called the string data) for certain variables, such as occupation.¹² This provides greater detail into each respondent's perception of their own occupation, and often includes abbreviations or shorthand of the enumerators. However, there is a great deal of inconsistency across the

¹⁰ The procedure used for the construction of these imputed variables is discussed in the IPUMS User Guide on "Family Interrelationships" (IPUMS-USA, n.d.).

¹¹ A family is any group of persons living in the household who are related by blood, adoption, or marriage. A family may consist of a single unrelated person living in a household (e.g., a servant) or a large multi-generational extended family.

¹² This variable lists the occupation as it was written by the Census enumerator, which was later coded into another variable – occupation, 1950 basis – by the University of Minnesota to provide greater consistency. However, in doing so, some detail was lost.

population in the string data, in addition to illegible entries. Therefore, this study also utilizes the constructed variables coded by the IPUMS team at the University of Minnesota. That is, IPUMS data is integrated over time and across samples by assigning uniform codes to variables (IPUMS-USA, n.d.). These imputed variables include those on family relationships, as discussed above.¹³

Another imputed variable used extensively in this study is the harmonized occupation variable. That is, IPUMS retains the original occupation as recorded by census enumerators in the occupation string variable; however, it also provides a harmonized variable for occupation that standardizes the entries and provides consistency across censuses to allow for long-term analysis. This paper uses the 1950 occupation classification system variable as the harmonized variable for analysis of occupation across the population. This variable categorizes occupations as either “gainful” or “non-occupation.” A “gainful” occupation is any which falls into the 1950 occupation categories other than “non-occupation.” Non-occupations were housekeeping at home / housewives, imputed keeping house, helping at home, current students, and retired.

The sample for this study is restricted to adults (age 16 and older), as the question on occupation was only instructed to be asked of those above the age of 15. Additionally, individuals who were likely unable to work were dropped from the sample, specifically the incarcerated, invalids without an occupation (including those designated as “idiotic” or “insane”), and “paupers.”

The variables used in this study are discussed in more detail in Appendix A.

¹³ The University of Minnesota IPUMS team ran tests of their procedure for imputing relationships in 1860 on 1880 census data (which did include a question on household relationships) and claim over 95 percent accuracy between the imputed relationship and the listed relationship (IPUMS-USA, n.d.).

IV. How to Identify Family Workers

As the primary aim of this study is to construct an augmented labor force participation rate that includes individuals who were likely unreported family workers (that is, they provided unreported labor for a family operated business), the question arises as to how to recognize those individuals in the data.¹⁴ This section provides the methodology used to identify those individuals, including the assumptions made regarding who qualified as a family worker in various contexts.¹⁵ It is presumed that unreported family workers fell into three primary categories: agriculture (i.e., farm family workers); retail or shop keeping (merchant family workers); and, supporting the business of a self-employed craftsman or tradesperson (craft family workers).

It should be noted that this list is an approximation of individuals who were likely providing unenumerated labor in support of the occupation of other members of their households. This is by no means exhaustive and is subject to several errors, which cannot be avoided when using data that is nearly 16 decades old and incomplete. Our procedure may overestimate female labor supply. It is likely that some individuals who were not actually providing labor (e.g., some of the aged) will be included in these calculations, based on their status within their household and lack of other listed occupations. This is mitigated by removing

¹⁴ During this period, many states had restrictions on the ownership of property by married women. Property they acquired prior to marriage, through inheritance, or otherwise while married became the legal property of their husband. Some states, such as New York in 1848, began passing Married Women's Property Acts, expanding the property rights of married women. By 1900, all states had given married women substantial control over their property. (Chused, 1983; Law Library of Congress, n.d.)

¹⁵ The Current Population Survey in use today defines unpaid family workers as persons age 16 and over who are not working for pay or profit, but who "during the reference week...worked 15 hours or more as unpaid workers in an enterprise operated by a family member." By 1981, unpaid family workers had fallen to less than one percent of the labor force (Daly, 1982).

from the sample those individuals who were unlikely to be able to provide any labor (that is, the infirm and incarcerated). Moreover, to the extent that women did only household chores, and did not participate in a meaningful way in the farms, store, crafts, and other businesses owned by other household members, the estimated female labor force participation rates herein could be overstated.

On the other hand, our calculation certainly overlooks many females who did provide labor. Accounts from the time suggest that many women provided labor in many capacities along with their roles of homemakers, including taking in boarders, non-farm caring for livestock (e.g., chickens) and vegetable gardens, as well as doing cooking, laundry, making textiles and clothing, and any other number of miscellaneous tasks for other households in addition to their own (Jaffe, 1956; Smuts, 1960; Folbre & Abel, 1989; Folbre & Wagman, 1993). Much of that labor could potentially be considered home production – in support of their own household – and would therefore be irrelevant to this study. However, to the extent that goods from family operated gardens were sold, textile work was piecework for pay, etc., this labor should be counted as market work. These considerations work in a direction opposite to that described in the above paragraph – they imply that our estimates understates the true female labor force participation rate. This paper does not propose a methodology for identifying women who provided unenumerated labor possibly unrelated to the occupations of other members of her household. Therefore, from this perspective, our estimate of the female labor force participation rate may be considered a lower bound.

The primary methodology used to identify these unreported family workers is to code them as such based on the occupations of other members of their household, given that they did not report an occupation themselves. In essence, individuals – both male and female – over the

age of 15 who live in a household with a farmer (owner, tenant, or manager), merchant, or self-employment craftsman but do not have an occupation reported and are imputed to be related to the head of household (as opposed to a live-in servant or a boarder/lodger) are presumed to support, in some capacity, the self-employed occupation of that household member. This is summarized in Table 1.

Farm Family Workers

The most straightforward category of informal labor is that of the family worker in agriculture. Farming was by far the most common occupation in the United States in 1860 – the official Census report designates 2,423,895 free individuals as Farmers and an additional 795,679 as Farm Laborers, which is almost 40 percent of all free individuals who reported an occupation (US Census 1860). However, there was little or no accounting of free female labor in agriculture. This is despite that fact that “contemporary accounts of farm life leave no doubt that most farm women worked long and hard” (Smuts, 1960, p. 76). In fact, over 96 percent of the reported farmers (owners, tenants, and managers – not including farm laborers) in the one-percent IPUMS sample were male. That is, almost one-third of adult males reported having an occupation as a farmer, while only just over 1 percent of females did so.

In order to construct the measure of farm family workers, any individual age 16 and over whose head of household, spouse, mother, or father, has an occupation coded as a farmer (owner or tenant) or farm manager was coded in these data as a family worker on a farm, as long as they did not have another occupation recorded and were related to the head of household (i.e., not classified as a roomer, boarder, lodger, or institutional inmate).¹⁶ This should capture the farm

¹⁶ Farm managers were a relatively small group. They were only 0.42 percent of all farmers in the slave states and 0.06 percent in the free states.

wives, farm daughters, and farm sons whose occupations were not enumerated in the data. As can be seen in Table 1, this procedure estimates 5.1 percent of adult males as family workers on farms, as well as 36.0 percent of adult females.¹⁷

In this 1/100 sample, there are just under 70,000 individuals who are part of a “farm” household – that is, at least one member of the household (head, mother, father, or spouse) is either a farmer (owner or tenant) or farm manager. Roughly 37,000 males are part of a farm household and almost 33,000 females. Of the males, two-thirds are farmers themselves and an additional 6,000 are farm laborers; that is, 84 percent of males in farm households are also recorded as farm workers in some capacity. Only approximately 4,500 have no occupation, 4,000 of whom are related to the head of household and become imputed farm family workers. This brings the approximation of farm labor to 94 percent of males in farm households. The most common occupations among the remaining 6 percent of males in farm households are: private household workers, students, teachers, carpenters, foremen, and salesmen. Roughly 500 individuals (just over 1.3 percent of males in farm households) were unrelated to the head of household and had no formal occupation listed. It is likely that they also provided labor on the farm, but are not considered family workers in this study due to their not being recorded as related to the household head.

Of the 33,000 females in farm households in the 1/100 sample, only 1,016 are reported as farmers using the 1950 coding scheme (16 farm managers and 1,000 farm owners and tenants). The most common reported occupation for the remainder is private household worker (about 2,300). Almost 2,000 are reported as keeping house or helping at home with no formal market occupation. The majority (26,665) has no reported occupation at all (using the 1950 coding

¹⁷ For comparison, Folbre and Wagman (1993) estimate the farm non-market female work force to be 3,181,000 in total, or approximately 36.3 percent of the adult female population.

scheme). It is these women (with no formal market occupation or no occupation reported) who are imputed family workers, if related to the head of household. Over 90 percent of these female farm family workers were the wives or daughters of the head of household in which at least one member was a farm owner, tenant, or manager.¹⁸ This results in approximately 87 percent of females in farm households imputed as providing farm labor, which seems a reasonable estimate when compared to male labor.¹⁹

Further, of the 26,665 females with no occupation, over 26,000 of those entries for occupation were blank in the occupational string variable data (indicating those individuals were most likely not asked for an occupation as entries such as “none” or “no occ” were recorded to indicate the response was “no occupation”). The majority of the remainder had “occupations” recorded in the occupational string data field based on their marital status – such as “wife” (for roughly 450 individuals), “widow” (for over 50 women), or “spinster” (for over 80 women). However, 19 of those women were designated as “FMR” in the occupational string data, which is shorthand used for “farmer;” it is unclear why these individuals were not coded as farmers under the IPUMS occupation variable. Nonetheless, as contemporary accounts suggest that the

¹⁸ The relationship to the head of household of the approximately 32,000 females in the 1/100 sample who lived in a farm household for whom no occupation was reported was (in percents):

Wife	59.1
Daughter or daughter-in-law	32.1
Mother or mother-in-law	4.4
Sister or sister-in-law	3.0
Other relative	1.3
<u>Total</u>	<u>100.0</u>

Detail may not add to total due to rounding.

¹⁹ Note that 77 females were imputed family workers in multiple capacities (i.e., at least two of the following: farm, merchant, and craft) due to multiple household family members being self-employed in various occupations.

wife or widow of a farmer often also provided farm labor, it seems a reasonable assumption to code these women as family workers.

Merchant Family Workers

Another category of occupations in which family members were likely to provide considerable labor was merchants. It is expected that wives, daughters, and sons of shopkeepers supported the family business, in part because it was common at the time for the store and house to be adjoined (Goldin, 1990). For this study, effort was made to differentiate between individuals who worked in a shop and those who were proprietors of a shop. This category – merchant family workers – includes anyone whose head of household, father, mother, or spouse had an occupation (in the occupational string data) that included the terms “Merchant” (or the shorthand “mrch”), “Seller,” “Keeper,” “Trader,” “Dealer,” “Business,” “Confectioner,” “Clothier,” “Tobacconist,” or “Grocer,” given that the individual did not have a listed occupation and was related to the head of household. The specific search terms were chosen by cross-referencing the occupational string data with the occupation 1950 code indicating the individual was a manager or proprietor. Analysis of the data suggests that individuals who worked in a shop as a paid employee were listed with occupations such as “clerk” or simply the name/type of store.

As seen in Table 1, this categorization added a small number to the count of male workers (only 0.32 percent), but included 3.24 percent of adult women as family workers of merchants. There were approximately 7,200 individuals (in the 1/100 sample) who lived in households in which the head, father, mother, or spouse was a merchant (by the above definition). Although the male/female division was almost exactly even, two-thirds of the males in these households were recorded as merchants themselves, while only 58 (1.6 percent) of the

females were. Further, almost half of the non-merchant males were listed with occupations that indicated they were likely partially or fully family workers, such as “salesmen and sales clerks,” “bookkeepers,” “managers,” and “laborers,” and less than ten percent had no occupation listed. This results in roughly 83 percent of males in merchant households who were not listed as merchants, but were imputed as providing labor to the household business. In contrast, three-quarters of the women in merchant households had no recorded occupation and less than one-percent had an occupation recorded that could be construed as supporting a merchant business. The most common listed occupation for women in merchant households was, again, private household worker (over 500 females). This was, again, followed by housekeeping (100). Roughly 71 percent of related females in merchant households were imputed here as supporting the family business.²⁰

Craft Family Workers

This category – craft family workers – contains, perhaps, the most debatable of assumptions regarding family workers. That is, while it seems logical to assume that family members – even women – regularly provided farm labor and worked as shopkeepers in their daily lives, it is perhaps more difficult to imagine women engaged in these more industrial crafts. However, Goldin’s analysis of a set of documents on business directories from Philadelphia from 1791-1860 suggests that women did, in fact, participate in these crafts (Goldin, 1990). This is construed by an analysis of occupations of female-headed households – primarily widows and unmarried adult women – that are linked to the occupations of recently deceased husbands or

²⁰ An additional 263 women (about 7.5 percent of females in merchant households) were members of merchant households, but had no reported occupation and were unrelated to the head of household. They were likely also informal or unenumerated workers, including being servants, though not necessarily family workers.

other family members, suggesting a high degree of hidden market work undertaken by these women (when their male family members were living) and a high probability of widows assuming their deceased husbands' craft and business positions (Goldin, 1990). Some of the occupations of women from this Philadelphia sample are tanner, shoemaker, pewterer, cooper, glass engraver, and ironmonger (Goldin, 1990). Goldin also notes other researchers have found evidence of "silent partnerships" between husbands and wives (in which an occupation was not recorded for the female) during the first half of the nineteenth century. Further, in the 1860 Census data used in this 1/100 sample, among females with recorded formal occupations there are: 5 blacksmiths, 2 brick or stonemasons, 8 carpenters, 2 apprentices in building trades and 6 craftsmen and kindred workers. Therefore, despite the perceived unconventionality of women engaging in these professions, it is likely that many more were doing so directly or indirectly (for example, as record keepers) in support of their male family members.

For this study, it was presumed that individuals without a reported occupation who were related to a craftsperson or artisan who was self-employed were likely unrecorded family workers. There is an important distinction between the self-employed or proprietors and the individuals who were craftspeople or artisans employed by others (Table 2). In order to isolate these self-employed individuals, this study took advantage of the occupational string data in the IPUMS file. The enumerator was instructed to distinguish an individual who employs others under him from the one employed. Specifically, the enumerators were instructed to include "master" to distinguish the employer from the employee (US Census, 1860). Therefore, individuals whose occupation title included "master" were considered as self-employed artisans, although this undoubtedly underenumerated the self-employed, as "master" may not have been

recorded for many of the self-employed.²¹ Occupations in which the word “master” was clearly part of the occupational title, rather than an indication of self-employment, were not included in this category (for example, postmasters and shipmasters).

This category of family worker resulted in a small increase in the augmented labor force participation rate overall – only 0.06 percent of males and 0.76 percent of females (see Table 1). However, it should be noted that this implies that the incidence of females presumably supplying labor to a relative who was a self-employed artisan or craftsperson was over twelve times that of males. This is likely because males within the family tended to be listed as an apprentice in the given occupation or simply as an employee in the same occupation, whereas the occupation for females in the family tended to be left blank. Of the 802 females in the 1/100 sample in the same household as a master craftsman, only 1 is herself listed as a master (a master tailor) and 1 is listed as an apprentice (a milliner apprentice). In contrast, 496 of the 888 males are themselves “masters,” 81 are listed as apprentices to the trade, and an additional 101 are listed as craftsmen themselves. After the inclusion of individuals meeting the criteria for family workers, 81.6 percent of males and 72.8 percent of females living in the same household as a self-employed craftsperson are considered also having a craft occupation, whether formally recorded or as an imputed family worker.

Boarding House Keepers

Another activity in 1860 that today might be considered gainful employment but might not have been reported as a woman’s occupation at the time is that of operating a boarding house. Many historical accounts cite taking in boarders or running small boarding houses as a

²¹ In the 1/100 sample of the 12,360 men in craft occupations, only 560 were designated as “master,” that is, self-employed. This suggests a significant under-reporting of “master” status.

common informal occupation or activity for women in 1860 (Jaffe, 1956; Smuts, 1960; Folbre & Abel, 1989; Folbre & Wagman, 1993). According to one historian, boarding was ubiquitous – between one-third and one-half of urban residents were either boarders themselves or housed boarders in the nineteenth century US (Gamber, 2007). In 1860, “boarders” included apprentices, farm laborers, middle-class clerks and merchants, new immigrants and travelers, among others (Gamber, 2017). More generally, individuals living in a household who are not related to the household head or the head’s spouse by blood or marriage are likely to be roomers (roommates), boarders, or lodgers (R/B/Ls).

The 1860 Census takers were asked to list the household head as the first person on the household record, to be followed by the head’s spouse, children, and other relatives, and then non-relatives, by age in chronological order for each category (US Census, 1860). When the manuscript data were converted into a machine readable format, the coders were instructed to impute the relationship status to the head of the household on the basis of the person’s surname, gender, and age. Those free people for whom a relationship to the household head could not be imputed were put into a single category, “roomers, boarders, lodgers.”²² Recording and coding errors may have inadvertently resulted in two types of errors of uncertain magnitudes: Over-recording as R/B/L individuals who were in fact family members but who were not identified as such in the imputation, and underreporting as an R/B/L someone who is imputed as a family member but in fact is not. Moreover, the household head may be taking in a family member (relative) who is de facto, but unknown to us, really an R/B/L.

The reported occupation categories include “boarding house keeper.” But we may also infer that an adult woman (such as a household head, spouse, or daughter) who does not

²² Note that live-in domestic servants would therefore be categorized as R/B/Ls.

otherwise report a formal occupation, living in a household with a boarding house keeper that has a sufficient number of R/B/Ls is providing the services for the operation of a boarding house (which include cooking, cleaning, shopping, and caring for sick boarders (Gamber, 2007)). A question arises as to how many R/B/Ls would be a sufficient number to consider classifying the woman without a recorded occupation as an informal boarding house keeper?

In the 1/100 sample of adult free women who are listed as the head of the household or imputed to be related to the head, 85 out of 69,410 (a little over one-tenth of one percent) reported their formal occupation as boarding house keeper, or one percent of women reporting a formal occupation (Table 3). A total of 160 women (two-tenths of one percent) were themselves or were living in a household with a formal boarding house keeper, or two percent of women reporting an occupation. Among women living in a household in which at least one person was reported as a boarding house keeper, nearly one-quarter lived in a household with no recorded R/B/L and another one-quarter had only one or two R/B/Ls in their household.

If we use the threshold of five or more R/B/Ls in the household as indicating an occupation as maintaining a boarding house, this would be the informal or formal occupation of one percent of women reporting an occupation (who were not themselves R/B/Ls), 39 percent of women who reported their occupation as boarding house keeper, and 38 percent of women living in a household with at least one person who reported being a boarding house keeper as a formal occupation.

Of the 160 women in households with a boarding house keeper in the 1/100 sample, 53 percent (85 women) recorded a formal occupation as a boarding house keeper, 38 percent reported no formal occupation, and the remainder (9 percent) reported a variety of occupations.

Most lived in urban areas (71 percent), in the Northeast (57 percent), and many were heads of the households with no imputed spouse in the household (41 percent).

It would seem that while being a boarding house keeper was an important occupation for a very small proportion of women, as distinct from having one or two boarders, it was not on the whole a significant formal or informal occupation for women in 1860.

Augmented Labor Force Summary

Table 1 summarizes the labor force participation rates for free adult females and males age 16 and over in 1860. About 88 percent of males were listed with a gainful occupation, while only 16 percent of females were. However, once imputed family workers were included, 93 percent of males had an occupation and 56 percent of females. That is, imputed family workers more than tripled the female labor force participation rate. Additionally, almost 4 percent of females (and 1.6 percent of males) had no listed occupation and were unrelated to the household head; therefore, they did not qualify as family workers in this study, but some were likely providing some labor to the household.²³

²³ An interesting category of occupations in 1860 was “gentlepersons” – that is, 225 men and 111 women in the 1/100 sample were listed as having the occupation of gentleman, gentlewoman, or lady (or the equivalent). Of the gentlemen, 2 were listed as farmers (“gentleman farmer”) and 4 were listed as retired (2 in farm households and 2 in merchant households), and the remaining 219 were coded as “Managers, Officials, and Other Proprietors” in the 1950 occupation coding system. In this study, the retired gentlemen were not treated as having an occupation, while those listed as either a farmer or in the manager category were treated as having an occupation.

For females, there were 3 in sales, 1 person keeping house, 1 retired, and 14 with no occupation. The remaining 92 were also coded as “Managers, Officials, and Other Proprietors.” Through correspondence with the IPUMS Team at the University of Minnesota, it was deduced that these individuals would be considered gentlemen/ladies at leisure in the contemporary occupation categorization, but were likely considered self-employed (probably living off their estates) for the conversion to the 1950 occupation classification. This highlights the importance of societal context of the time for historical data studies. (Correspondence with Michelle Pratt, dated December 18 and December 20, 2018)

This leaves 44.19 percent of females for whom an occupation has not been identified. However, almost 2 percentage points of those were coded as keeping house and another 1 percentage point of those were students (in that they were recorded as having attended school within the last year or were given the occupation “student”). Additionally, almost 2 percentage points were over 65 and over 14 percentage points had very young children under their care. The occupation code was left blank for 97 percent of the 33,851 women who are listed as having no occupation. However, something was recorded in the occupation field of the Census form for over 1600 of those women, though lost in the translation from string data to standardized data. In fact, 61 of them had terminology listed that would likely indicate an occupation – primarily “boarder,”²⁴ “day worker,” and “lab” (shorthand for laborer) – although there were also 3 blacksmiths, a shoemaker, and a miner.²⁵ The majority of those women with something recorded had an occupation that reflected their role within the family (such as wife, widow, sister, spinster), which is consistent with the idea that the “occupation” was a reflection of social role. Only 70 of the 33,851 females with no occupation listed actually had a response that indicated no occupation (e.g., none, nothing, or no occ).

In comparison, 94 percent of entries for males with no occupation were blank. Only 3 males were coded as keeping house and approximately 1 percentage point were students. There were also very few non-working males with young children. Over one-half of the remaining had a response that indicated no occupation. An additional 13 individuals had a response that likely

²⁴ It might be that “boarder” was listed in the occupation category for these individuals because they were providing labor services outside the household in which they lived as a non-family member, but the capacity of their labor was unknown to the respondent who spoke with the Census enumerator.

²⁵ Again, it is unclear why the IPUMS data does not provide an occupation code for these individuals.

indicated some form of work (e.g., boarding, day work, preacher). The majority of the remainder was illegible.²⁶

V. Female Occupational Distribution in 1860

This section explores the occupational distribution of adult females in 1860. Table 4 presents the frequency distribution of occupations for females in comparison to males. As discussed in Sections III and IV, women were more likely to be unreported family workers than to have a formal occupation. However, of those that did have an occupation recorded, the most common was in Service, specifically private household workers including housekeepers and laundresses. Other common occupations within the Service category were cooks and practical nurses. The second most common formal occupation category was Operatives, which was comprised primarily of dressmakers and seamstresses, weavers, milliners, and other textile workers. If imputed family workers are included, the most common occupation for women would be farming (similar to men), followed still by service and operatives, then merchant family workers.

In comparison, the most common occupation for males was farming (owners, tenants, or managers) – 31.5 percent of formally recorded occupations, increasing to 36.6 percent if unreported family workers are included, and up to 47.0 percent if farm laborers are included. This is followed by craft workers (15.1 percent) – primarily carpenters and shoemakers – followed by non-farm laborers (10.5 percent). Only 1.3 percent of free males had a Service

²⁶ Three of the most interesting entries were “occupation where impossible to ascertain,” “intemperance,” and “Shot by David Jeter on the 15th of June,” none of which speaks to an actual occupation but all of which illustrate the wide variety of responses and entries in the occupation field of the census form. A fourth interesting entry – 4 (young, unrelated) women in Wisconsin were listed with the occupation “boarding house for Gentleman Lucentio,” which recalls one’s mind to *Taming of the Shrew* and, perhaps, draws conclusions about their actual occupation.

occupation – and these were primarily private household workers and porters, with a much higher-than-average proportion of whom were free non-whites (18 percent of male service workers were non-white versus 1.3 percent of all free males). This racial disparity is also true for free females in Service, but to a lesser extent: 6.5 percent of females in service occupations were free non-whites versus 1.2 percent of all females being free non-whites.

VI. Summary and Conclusions

In contrast to previous estimates of nineteenth century female labor force participation, this study uses microdata recently made available from the 1860 Census of Population. It identifies individuals likely to have been providing unenumerated labor by utilizing information on the occupations of other members of their households. The three most important of these unreported family labor categories identified, and quantified in this study, are farm family workers, merchant family workers, and craft family workers. Including these people in the labor force increases the labor force participation rate for free females from 16 percent to 56 percent, a more than a three-fold increase. This is similar to the recent female labor force participation rate of 57 percent in 2018. In contrast, the labor force participation rate for free males increased from 88 percent to 93 percent (only about 5 percentage points) when likely unreported family workers are included.

Note that while the revised estimate of the female labor force participation rate for the 1860s is similar to the current level, there is a dramatic difference in the distribution between reported and our estimate of unreported (or unpaid) family labor. This is the result of increased paid employment opportunities for women outside of the household framework, a decline in the family farm and small businesses, the institutional changes (e.g., social security) that have increased the incentive to report as employees family members working in a family-operated

business, and the decline in the social stigma against middle-class wives working for pay outside the home.

The most common unreported occupation for females was farming. This is consistent with the occupation distribution for males, almost half of whom provided labor in the agricultural sector in some capacity. The most common formal or reported occupation for females was domestic service, followed by clothing/textile work.

This study emphasizes the important role that social context plays in the development and interpretation of statistics. In the mid-nineteenth century, women were generally not viewed as independent participants in economic-related work. Both the census authorities and the American population had no qualms not reporting as work, or as an occupation, the activities women performed within a business (farm, merchant, or craft) operated by their husband or father with whom they lived. In recent decades, the increased focus on home and family life have brought these forgotten women into sharper focus, and given us a new appreciation for their contributions to the economic life of their families and the country. It is in this spirit that this study has developed statistical tools to highlight these women's contribution to the labor force and the economy as a whole.

Table 1

	Males		Females	
	Number	Percent of Total Free Male Population	Number	Percent of Total Free Female Population
Formal or Informal Occupation				
Gainful Occupation	71,568	87.64	12,016	15.69
All Family Work	4,518	5.53	30,738	40.13
Craft Fam	47	0.06	582	0.76
Merchant Fam	262	0.32	2,485	3.24
Farm Fam	4,194	5.14	27,594	36.02
Multiple Fam	15	0.02	77	0.10
Total Augmented	76,086	93.18	42,754	55.81
No Occupation Reported				
Keeping House ^a	3	0.00	1,369	1.79
Student ^b	953	1.17	1,045	1.36
Retired	63	0.08	7	0.01
Other	4,552	5.57	31,430	41.03
Age 65 or Older	359	0.44	1,358	1.77
Has Child Age 3 or Younger	521	0.64	10,856	14.17
Non-Relative ^c	1,268	1.55	3,000	3.92
Total Not Working	5,571	6.82	33,851	44.19
Total Adult Population	81,657	100.00	76,605	100.00

^a Keeping House includes all individuals who are coded as keeping house / housekeeping at home / housework, imputed keeping house, and helping at home / helps parents / housework, given that they did not meet the criteria for family workers.

^b Student includes both individuals whose occupation code was student and those who were listed as attending school under the student variable. If individuals were listed as a student as well as keeping house, they were categorized as a student.

^c A non-relative of the household head with no occupation reported may include boarders and unpaid domestic servants.

Detail may not add to total due to rounding.

Source: 1860 Census of Population, one-in-a-hundred sample, IPUMS, Minnesota Population Center, University of Minnesota, microdata initially released in 1998, current version 2018.

Table 2

Occupation Distribution of Craftspersons by Self-Employment, Free Males and Females, 1860,
in Percents

(A) Males		
Occupation (1950 Basis)	All Craftsmen	“Master” (Self-Employed)
Carpenters	22.0	29.8
Shoemakers and repairers, except factory	12.4	5.5
Blacksmiths	9.0	8.9
Craftsmen and kindred workers (not elsewhere classified)	6.3	4.5
Brickmasons, stonemasons, tile setters	5.4	7.3
Tailors	5.2	2.0
Painters, construction, and maintenance	3.9	2.1
Other	35.8	39.9
Total	100.0	100.0
Sample Size	12,360	560
(B) Females		
Occupation (1950 Basis)	All Craftswomen	“Master” (Self-Employed)
Tailoresses	83.0	100.0
Apprentices, other specified trades	1.9	0
Shoemakers and repairers, except factory	1.7	0
Carpenters	1.7	0
Craftsmen and kindred workers (not elsewhere classified)	1.3	0
Blacksmiths	1.1	0
Cabinetmakers	1.1	0
Other	8.2	0
Total	100.0	100.0
Sample Size	464	1

Note: Detail may not add to total due to rounding.

Source: 1860 Census of Population, one-in-a-hundred sample, IPUMS, Minnesota Population Center, University of Minnesota

Table 3

Frequency Distribution of Roomers, Boarders, and Lodgers (R/B/Ls) in Household, Females, 1860, Percents:

Number of R/B/Ls in Household	All Females	Females with any Formal Occupation	<u>Formal Occupation Boarding House Keeper</u>	
			Female	Any Household Member
0	81.3	81.4	21.2	23.1
1	11.8	11.3	18.8	16.3
2	3.9	3.6	7.1	7.5
3	1.4	1.6	8.2	10.0
4	0.6	0.6	5.9	5.0
5	0.3	0.4	7.1	8.1
More than 5	0.7	1.1	31.7	30.0
Total	100.0	100.0	100.0	100.0
Sample Size	69,410	8,044	85	160

Note: Detail may not add to total due to rounding. Only females who are heads of their own household or who are related to the head of household are included in the samples. Boarding house keepers need not live in the same household as their boarding house.

Source: 1860 Census of Population, one-in-a-hundred sample, IPUMS, Minnesota Population Center, University of Minnesota

Table 4

Occupational Distribution of Free People by Gender, Age 16 and Older, 1860, in Percents

Occupation Category ^a	Males	Females
PTK	2.78	1.00
Farmers	31.50	1.33
Managers	4.92	0.27
Clerical	0.54	0.02
Sales	2.38	0.08
Craft	15.14	0.61
Operatives	8.17	3.45
Service	1.31	8.41
Farm Workers (Laborers)	10.38	0.23
Laborers (Non-Farm)	10.52	0.31
All Family Workers	5.53	40.13
Craft Family Worker	0.06	0.76
Merchant Family Worker	0.32	3.24
Farm Family Worker	5.14	36.02
Multiple-Job Family Worker	0.02	0.10
No Occupation (Formal or Informal)	6.82	44.19
Total	100.00	100.00
Sample Size	81,657	76,605

^a PTK is Professional, Technical and Kindred occupations; Farmers includes farm owners, farm tenants, and farm managers; Managers is limited to non-farm managers; “No Occupation” includes housekeeping at home/housewives, imputed keeping house, helping at home, current students, retired, and other non-occupations. Detail may not add to total due to rounding.

Source: 1860 Census of Population, one-in-a-hundred sample, IPUMS, Minnesota Population Center, University of Minnesota, microdata initially released in 1998, current version 2018.

Appendix A: Data Appendix

Sample:

This sample consists of all free individuals in the 1860 Census of Population (Schedule 1), IPUMS, 1% sample, who meet the following criteria:

- Age 16 or older
- Not currently incarcerated/an inmate
- Not listed as an “invalid/disabled,” “pauper,” “idiotic,” or “insane” with no occupation reported

Labor Force Participation Variables:

- **Formal Occupation:** Refers to individuals for whom there is an occupation listed for the individual, excluding those with a reported “non-occupation.” That is, this includes all individuals who have an occ1950 (Occupation code using 1950 Census Bureau occupational classification system as coded by IPUMS) less than 980; therefore it includes all “gainful” occupations. The remaining codes are considered “non-occupations” and include keeping house, imputed keeping house (by the University of Minnesota IPUMS team), helping at home, at school, retired, and other non-occupation (primarily those for whom occupation was left blank or reported as “none”).
- **Farm family worker:** Respondent is expected to be a family worker on a farm. This category includes anyone whose head of household, father, mother, or spouse had an occupation listed as “Farmers (owners and tenants)” or “Farm Managers,” given that the individual did not have a listed occupation and was related to the head of household.

- Merchant family worker: Respondent is expected to be a family worker of a self-employed merchant or other shopkeeper. This category includes anyone whose head of household, father, mother, or spouse had an occupation that included the terms “Merchant” (or the shorthand “mrch”), “Seller,” “Keeper,” “Trader,” “Dealer,” “Business,” “Confectioner,” “Clothier,” “Tobacconist,” or “Grocer” given that the respondent did not have a listed occupation and was related to the head of household.
- Craft family worker: Respondent is expected to be a family worker of a self-employed trade worker or craft worker. In the question on occupation, the Census enumerator was instructed to list individuals who employed others (rather than were employed by someone else) as distinct by including the word “Master” in their occupation title. Therefore, this category includes anyone whose head of household, father, mother, or spouse was listed as a “Master” in their occupation, given that the respondent did not have a listed occupation and was related to the head of household. Cases in which the word “master” was clearly part of the occupation title, rather than an indication of self-employment, were not counted as family workers (for example, Post Master, Baggage Master, Shipmaster).

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