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Women Accountants in the 1880 US Federal Census: A Genealogical Analysis

By

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Women Accountants in the 1880 US Federal Census: A Genealogical Analysis

Abstract:

This historical census micro-data project examines the characteristics of women who self report as accountants in the 1880 US Federal Census. Using the data provided by the actual Census forms the demographic, familial, and economic characteristics of women accountants are examined and found to be quite different from the experience of accountants overall found by Lee [2007]. A fairly clear picture of a typical 1880 female accountant emerged and analysis of their multi-generational families gave insight into the changing occupational landscape of the period. Almost all women accountants were US born of US born parents and most did not migrate within the US thus showing some very mild evidence of exclusionary closure of the occupation for immigrant women. The 1870 and 1900 US Federal Census actual forms are also examined to determine where these women came from and where their lives led on both personal and career dimensions.

Introduction

The Census data from 1880 US, 1881 Britain and 1881 Canada has been extensively studied by accounting historians [Lee, 2007; Edwards and Walker, 2007, 2008] using indexed census data to uncover the characteristics of accountants in the overall population data. A consistent finding is the low representation of women as accountants who are not among the elite of the accounting field of their time. As the elite tend to leave more data behind and their significance is more self-evident, traditional history tends to focus on the elite. Micro-history or the hidden voices genre attempts to expand the social language of history from an emphasis on the elite to include the experiences of ordinary people [Breecher, 1997; Lee, 2008]. Micro-histories examine the past on a small and focused scale [Lee, 2008] and this study will provide social context in the form of genealogical/biographical micro-history of women accountants in the 1880 US Federal Census.

There are three levels of Census data available for the decennial US Federal Census: (1) population statistics based on the raw Census data prepared by the United States Census Office, (2) indexed census data in a searchable database, and (3) images of the census schedules (forms) completed by the census enumerator at the time of the census. Wootton and Kemmerer [1996] based their study on population statistics from the United States Census Office that did not provide any data at the individual level. Lee's [2007] study of American accountants in the 1880 US Federal Census was based on indexed census data that provided access to some information about the individuals in the census. Use of the indexed data without review of the underlying source census

schedules allowed examination of only the data selected for coding in the index and did not allow identification of errors in the indexing process.

This study utilized the searchable database feature of the indexed census schedules to locate the individual female accountants in the 1880 Census and then examined the images of the census schedules to uncover additional aspects of the lives of these women. The initial search results from the indexed census database returned 50 female accountants but review of the 1880 Census images revealed that only 44 individuals satisfied the search criteria of female and accountant. Images of the 1870 Census schedules for these women were examined to ascertain the personal and economic conditions that helped form them into accountants. The 1900 Census images were examined to determine where these women went in their personal and professional lives.

The majority of the 1890 US Federal Census source documents (schedules) were destroyed in a fire in the Commerce Department on January 21, 1921 and Congress authorized disposal of the remainder as it was so badly damaged [Greenwood, 1990]. Only macro level Bureau of the Census statistical analysis remains for 1890 that is not of sufficient detail for purposes of this study. Greater difficulty was encountered going forward due to the 20-year gap between Census data and due the surname change when married during this time period. (Marriage data varies widely by state and local locale and is not recorded at the national level.)

Prior research using macro-level, indexed census data on both the 1880 US Census [Lee, 2007] and the 1881 Canada Census [Edwards and Walker, 2008] found strong results of imported accountants from Britain among the new world accounting

populations. The female accountants in the 1880 US Census were American born with the exception of one woman born in Ireland providing some weak evidence of occupational closure for female immigrants similar to Edwards and Walker [2008] finding in Canada. The economic well-being of American accountants that Lee [2007] observed were not as strong for female accountants. The analysis of the 44 female accountants in the 1880 US Census yields a fairly consistent picture of the woman who is a self-reported accountant in 1880. As only one mother is employed the 1880 Census results dramatically illustrated the increased participation in the work force by women.

The occupations accountant and bookkeeper were beginning to diverge in the late nineteenth century; however, the 1880 US Census predates organization of the earliest professional accounting bodies and the first US CPA legislation in New York in 1896 [Previts and Merino, 1998]. This paper does not debate whether bookkeeper and accountant were recognized as different occupations in either the business or the wider American social environment of 1880. Occupation responses provided by the women themselves as recorded on the 1880 Census schedules are used as the criteria for inclusion in the lives that are studied. The focus is on how the self-reported women accountants came to be in the accounting field, the economic and personal conditions of their lives in 1880, and their subsequent personal and professional experiences as revealed by the 1900 Census data. The personal and professional experiences of these female accountants are contrasted with those of male accountants in 1880.

The remainder of this paper is organized as follows. The next section describes the broader shifting occupational landscape for professionals and for accountants and bookkeepers in late nineteenth century America. A section follows describing the data

provided by primary source of the US Census and how the census data was collected. Sections follow detailing the results of empirical analysis of the profiles of the women accountants including discussion of the geographic distribution, migration patterns, demographic characteristics, and economic well-being/achievement. The last section provides conclusions and limitations.

The Changing Occupational Landscape

By the 1880's the average per capita income in the United States exceeded that in Britain and was the highest in the world [Previts and Merino, 1998]. The era of the 1880s and 1890s was the era of birth of the modern city and New York City was economic capital of America [Previts and Merino, 1998]. Railroads were prototypes of rapid expansion and use of hierarchical and centralized bureaucracy for governance [Haber, 1991]. The great demand by railroads for information [Wootton and Kemmerer 1996] and the rise of the corporate form of business with its separation of owners from managers [Littleton, 1981] created the need for accounting information.

Accounting and bookkeeping diverged into separate occupations between 1870 and 1930 and prior to separation of these occupations the field had been predominantly a male occupation [Wootton and Kemmerer, 1996]. After the divergence accounting remained primarily a male occupation but bookkeeping became a mainly female occupation. The female genderization of bookkeeping was dramatic as one percent of bookkeepers were female in 1870 but more than sixty percent were female by 1930 [Wootton and Kemmerer 1996].

The formation of the American accountancy profession is generally considered to come from this period [Previts and Merino, 1998; Carey, 1969] but progress was quite slow. From 1750 to 1830 the occupations deemed professions in the United States were what Haber [1991] termed "The Gentlemanly Professions" and what Calhoun [1965] termed the "learned professions" – ministers, doctors and lawyers. The 1880 to 1900 period gave rise to a new social order marked by belief in progress and rapid advance of technology and the industrial uses for that technology [Haber, 1991]. The occupations with status as professions in this new social order were the traditional professions of lawyers, doctors, and clergy, although clergy as a profession was on a downward trajectory. Professors and engineers joined the ranks of professions [Haber, 1991]. Women professionals did not fare well during the 1880 to 1900 period as "for most Americans, marriage and family itself was a vocation for women, and a sacred one at that" [Haber, 1991, p. 231].

Accountant versus Bookkeeper Occupational Categories

Both the terms accountant and bookkeeper were in use by 1880 and there was some divergence of meaning as it related to the underlying work performed [Previts and Merino, 1998]. Lee [2007] and Wotton and Kemmerer [1996] both consider that the terms had separate, distinct meanings by 1880.

Occupation data on the original census schedules used in this study are not impacted by the occupational categories used by the Bureau of Census to compile its population statistics. The Bureau's occupational categories are of interest as they reflect

the perceptions of the accounting field by a significant external authority. In the 1880 Census statistics the Bureau only included bookkeepers in stores in the bookkeeper category while in the 1900 Census bookkeepers were combined with accountants into one category. The 1920 Census is the first one for which the Bureau of Census separated accountants and bookkeepers when compiling its statistics. The categories used were (1) accountants and auditors and (2) bookkeepers and cashiers [Wootton and Kemmerer, 1996].

Distinctiveness of the two terms may have occurred earlier among accountants and business people than it did among the general population. A classified advertisement in 1885 for an accountant in the *New York Times* that stipulated bookkeepers need not apply prompted the paper to send a reporter to the company placing the advertisement to get an explanation. The company's chief accountant asserted the uniqueness of the two occupations and attributed professionalism to accountants alone [Anonymous, 1885]. He also cited the scarcity of accountants in America and the recourse of many American corporations to importing expert accountants from England.

The 1880 Census data for the female accountants indicated that there was some difference in the meanings of the terms in 1880. Per the 1880 Census two sisters residing with their parents in Portland, Maine, were both in the field of accounting. The elder, Helen M. Johnson, indicated she was an "Accountant' while her younger sister, Emma, indicated her occupation as "Bookkeeper." The Institute of Accountants and Bookkeepers of the City of New York (IABCNY, later IA or Institute of Accountants) was founded in 1882 and was one of the earliest US professional accountancy organizations [Romeo and Kyj, 1998]. The founding officers of IABCNY could be

considered among the elite of the then profession. The occupations they listed in the 1880 census were bookkeeper by eight members and each of the following occupations by one member: accountant, auditor, editor, farmer, lawyer, newspaper owner, and auctioneer [Lee, 2007]. Harvey Egleston, father of one of the 1880 female accountants, also illustrated a combination of occupations. He was an accountant in 1870 and an editor in 1880. (Harvey Egleston was not a founding officer of IABCNY.)

New York State passed the first licensing legislation that limited and defined use of the designation CPA in 1896 [Preston, et al., 1995]. The first woman to be awarded a CPA certificate in the United States was Christine Ross who passed the CPA examination in June 1898. Miss Ross did not receive her certificate for another year and a half until the New York Board of Regents decided a woman could receive a certificate at their meeting on December 21, 1899 [Wescott and Seller, 1986]. Following this achievement Christine Ross practiced from her office at 17 Battery Place, New York City early in the twentieth century. However, in the 1900 Census Christine Ross listed her occupation as "Bookkeeper." This suggests great elasticity in the use of the terms bookkeeper and accountant.

Prior Census Index Based Research on Accountants in the 1870-1900 Period

Lee [2007] used indexed 1880 US Census data and found 1,689 accountants, 317 auditors, and 61,201 bookkeepers in the United States. Of the 1,689 accountants only 50 were women (2.9%) based on the indexed Census data used in the study. (The number of women is consistent with this study's index search results but review of the Census

images revealed only 44 were female accountants.) When accountants were compared relative to the US population there were 29,696 Americans per accountant. Lee [2007] considered this a very small accountant population considering the size of the US manufacturing economy. There was little evidence of public accountancy as a significant occupation.

The small size of the accountant community led to a sizable immigrant accounting population and lots of state-to-state migration. Lee [2007] found 20 percent of accountants were born outside the US and one in seven had parents born outside the US. There was strong reliance upon accountants imported from England. The proportion of accountants born in England was much greater than the percentage of English-born people in the population as a whole [Lee, 2007]. The strong reliance on immigrant accountants was deemed to be the result of use of skilled immigrants in a situation where there were insufficient home-grown accountants.

Economic 'well-offness' was measured using data on employment of domestic servants. American families were copying equivalent British Victorian families by employing servants for household tasks [Young, 2003]. Lee [2007] found significant differences between servants for the 3 occupational designations – more for auditors (about 50%), middle accountants (20%), and least bookkeepers (8.3%). Seven percent of households overall had servants in 1880.

Edwards and Walker [2008] studied indexed data of the 1881 Canadian Census available from the FamilySearch Internet Genealogy Service Web site data developed by the Church of Jesus Christ of Latter-Day Saints. Their search used both the terms accountant and comptable (the French word for accountant) and found 876 accountants

and 3,698 bookkeepers in 1881 Canada. The total population of Canada in 1881 was 4,278,348. When statistics comparable to those developed by Lee [2007] are computed there were 4,884 people per accountant and 1,1,57 people per bookkeeper in Canada. While these statistics reflect a greater number of accounting personnel to serve Canadian business, only seven women accountants were in the index of the 1881 Canadian Census [Edwards and Walker, 2008]. Review of the images of the census schedules revealed three female accountants once coding errors were removed. The errors the discovered were two individuals who were male by name, one indeterminate gender by name, and one individual who was probably an accountant's wife as the male spouse was an accountant.

The Canadian census asked questions about religion and ethnic origin that are not asked in the US Census. (The ethnic origin question was asked to determine shifts in the French and English populations [Edwards and Walker, 2008].) These questions enabled Edwards and Walker [2008] to more fully explore the issue of exclusion of certain groups from the profession (what they term closure) than do questions in the US Census. They found strong evidence of exclusionary closure through the demographic characteristics of the initial leaders of Canada's early accounting associations. Roman Catholics were found to be excluded from the accountant population and there were more ethnic English accountants [Edwards and Walker, 2008].

Primary Source: US Federal Census Data

The US Federal Census asked different questions in different administrations. The 1880 Census is the only one that is searchable by occupation and its main innovation from prior censuses was data on the relationship of each household member to the head of household. Key markers of identity have been identified as: residence, occupation, nativity, ethnicity, religion, and gender [Kertzer and Arel, 2002]. The US Census for 1880 includes questions for all of these markers except for ethnicity and religion while the 1881 Canada Census has direct questions for all of these markers. While there is no way to infer religion the 1880 Census does include a "race" question that has broad categories of white, black, mulatto, and for the first time in a US Census Indian (for native Americans). Given the lack of a direct ethnicity question in the US Census ethnicity had to be inferred from the birthplace of the individual and that individual's parents. As only one of the female accountants was born outside of the United States this data limitation did not impact the results. The 1900 Census is quite similar to the 1880 Census but gave the month and year of birth for each individual.

Data and Sample Selection

Ancestry.com is a publicly held company that offers a subscription service for Internet access to a variety of historical records including the US Federal Censuses. These Censuses are searchable in a variety of ways based on the questions that were asked in a specific Census and on what items Ancestry.com has chosen to include as

indexed items. The 1880 Census [Ancestry.com 2005] is searchable by occupation (earliest census to be searchable this way) while the 1870 [Ancestry.com 2009] and 1900 Censuses [Ancestry.com 2004] are not. Search results provide links to images of the actual census pages which gives access to all the data on the census forms, not just the portions that are indexed, and enables evaluation of the indexing accuracy. The 1870 Census [Ancestry.com, 2009] is searchable by many fewer terms, mainly by name, date and place of birth and location residing.

Characteristics of Female Accountants in the 1880 Census

A database search of the 1880 US Federal Census with the key words female and accountant yielded 50 results, a total that agrees with the number of female accountants Lee [2007] obtained. Examination of images of the census forms completed by the census enumerator in 1880 revealed six coding errors in the index that resulted in 44 female accountants in 1880 that were studied in this paper. The coding errors included two female accountants were listed twice in the index – Mary A. Allen and Clara G. Ewer. Two women were listed in the index as accountants but review of the census images showed Lizzie L. Hedges to have "No occupation" and the man on the line below Lizzie Patmore to be an accountant, not Miss Patmore. Two men were indexed as female including A.S. Frost and Desire Dyguesen. Desire Dyguesen was most likely coded as female in the index due to the sound of his name to an English speaker. He was born in Belgium so his name was French in origin. In the 1870 Census he was shown as male on the census image and indexed as male, a coding possibly aided by his 1870 occupation as

a butcher. All of the remaining analysis was performed on the 44 female accountants who were confirmed as to gender and occupation from review of the 1880 Census images.

Section Organization

The analysis of the census data is organized as follows: First the specific job titles on the census schedules are analyzed to elicit information about these women's work experiences and the extent, if any, of public accounting occupations. Next, the geographic or spatial distribution of the women accountants are explored to determine any residence clusters and whether internal state-to-state migration had occurred. Personal demographic information of marital status, age, and race are then discussed.

Given the micro-history theme of the paper additional data only obtainable by analysis of the images of the Census schedules are explored. The impact of family relationships is investigated along the following dimensions: Father's occupation, Mother's occupation, if any, occupations of other family members residing in the household, number of siblings and birth order, and whether the ages of multi-generational households indicated the female accountant was taking care of or likely to soon take care of an aged relative. Economic well-being of the female accountant was investigated by considering the extent of employment of domestic servants and boarding versus living in a residence. Both the 1870 and 1900 Census images are examined to learn about the early years of these women and their subsequent career and personal characteristics.

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Job Titles

The search was conducted using the occupation 'Accountant.' The search

returned results of all occupation titles including the word accountant and thus showed

some additional information about where these women worked. Two women were

employed by railroads (Elizabeth Brannon in Washington DC by the Metropolitan

Railroad and Jane Welton in Hartford, Connecticut by an unnamed railroad). Minnie

Mann of Boston, Massachusetts was an Accountant in an Auction Room, Jennie Weldon

of Philadelphia, Pennsylvania, was an Accountant in a Store. Kate Byram of Washington

DC was an Accountant in Treasury. The remaining forty-one women had the occupation

of Accountant listed. One of the women, Annie F. Mathes, was no longer working in

accounting as she was a patient of the New Hampshire Asylum for the Insane in 1880.

There was no evidence of public accounting from the job titles but the time period was

early for such a type of accounting to be very prevalent.

Geographic Distribution: 1880 Residence Clusters

[Insert Table 1 about here]

The largest number of female accountants was 14 (31.8 %) in Massachusetts.

This result is consistent with the Wooton and Kemmerer [1996] finding of high

concentration of female bookkeepers in Massachusetts where over fifty percent of

bookkeepers were women in 1900. These women were distributed throughout the state in seven cities: Boston had three women; Fairhaven, Georgetown, Cambridge, Chelsea each had two female accountants; and both Tauton and New Bedford each had one female accountant.

The second largest concentration of female accountants was five (11.4%) in New York. As "New York became the economic capital of America" [Haber, 1991, p. 196] in the 1880 to 1900 period, perhaps a larger number of female accountants could have been expected. A total of 35 of 44 female accountants (79.5%) were located in the New England States. These women resided in nine states throughout New England so there was no cluster of high female accountant employment in any city. Two resided in Washington D.C. and the remaining seven female accountants (15.9%) resided in five states throughout the Midwest.

Immigration

The women accountants in the 1880 census displayed very different immigration patterns than the overall 1880 accountant patterns found by Lee [2007]. Lee [2007] found that 20 percent of accountants were not born in the US. By contrast only one of the female accountants in the 1880 census, Ellen Moore, was born in Ireland. While born in the US themselves, both Mary J. Bauford and Elizabeth Branon had parents who were born in Ireland. The remainder of the 1880 women accountants were born in the US as were their parents.

Lee [2007] found significant east to west migration within the US by accountants

overall. This was determined by considering whether accountants reside in the same state

as they were born in. Thirty of the 44 women accountants resided in the same state as

that in which they were born. Only one woman, Jennie Alexandre, a 31 year old widow

born in Virginia who resided in Chicago, Illinois, in 1880 and the Stone sisters

demonstrated the east to west migration pattern. Mary and Helen Stone were born in

New York, and lived in West Decorah, Iowa, with their mother in 1880.

The majority of women accountants who migrated within the US did so within the

New England states. These eight women include one woman who migrated from New

Jersey to New York. The rare New Englander who migrated outside New England was

Elizabeth Branon, born in Vermont, who resided in Washington DC in 1880. Helen D.

Postlehuaite was the only woman who migrated from the South (Louisiana), went to

Warwick, Rhode Island to live and work.

As female accountants were largely American-born with American-born parents it

appears that immigrant women and first generation American women were not

participating in the accountant employment opportunities as were their male counterparts.

It may be that the additional barrier to hiring of gender when coupled with immigrant

status was sufficient to keep these women out of the occupational category of accountant.

Demographics: Marital Status, Age, and Race

The women accountants of 1880 were predominantly single as 39 of the 44 were

unmarried. The Census data for the only married woman, Mary Reath, age 23, was

captured just as her marital status changed as she married during the first six months of 1880. Whether other single accountants repeated Mary's experience could not be determined from the Census data as engagements were not one of the questions asked. Vital records, as birth, death and marriage records are termed, are maintained by individual states and record keeping varied widely. Massachusetts was the first state to continuously maintain vital records beginning in 1842 and it was not until 1933 that all states had instituted continuous vital records [Haines, 2008]. Attempts to search for later marriages by the single women accountants in the Ancestry.com databases did not result in any findings. The remaining four women accountants were widows. Two of the widows were childless but the other two widows each had one son.

One of the childless widows was Jennie Alexandre, 31, born in Virginia and migrated west to Chicago, who boarded with a non-related family. The other childless widow was Mary H. C. Merrill, 41, who resided in Georgetown, Massachusetts, with her twin sister Martha E. Chapman. The sisters formed their own household and both were incapacitated per the census form.

The widows who had a child lived quite different lives from one another. Elizabeth Brannon, 26, was born in Vermont of Irish parents and migrated to Washington DC where she worked as an accountant for the Metropolitan Railroad. She and her son, John, age 3, who was born in Washington DC (or 8 – difficult to decipher on the Census form), had a residence their own and did not live with extended family. While Elizabeth's situation was very atypical of the 1880 female accountants, the other widow with a child had a more representative living situation. Clara G. Ewer, 36, was born in Massachusetts of American born parents and remained in Massachusetts. Clara and her son George A.

M. Ewer, 12, lived in a multi-generational family residence that included her sister, Mary A. Allen, also an accountant. The family had a servant in the house.

The average age of all female accountants in 1880 was 27.4 years. The average age of the single female accountants is 26.9 years with a range from 18 years to 50 years old. All of the female accountants in 1880 were white.

Family Relationship Impact

This section looks at the occupations of other family members residing in the household, the number of siblings and birth order of the female accountant, and whether or not the female accountant lived in a household whose demographics indicated she was or soon would be caring for an aged relative.

The father's occupation could be determined for 25 female accountants. There was only one accountant father who passed his occupation on to his daughter. Abby H. Egleston, 26, was an only child who lived with her parents in Brooklyn, New York, in 1880. Her father, Harvey Egleston, was listed as an Accountant in the 1870 Census and as an Editor in the 1880 Census. Two fathers had occupations that could be construed as professions: the father of Bertha M. Sawyer was listed as Lawyer and County Clerk in 1870 and as a Lawyer in 1880, and the father of Mary E. Upton, was listed as Register of Probate in 1870 and an Editor in 1880. Two fathers had occupations involving the railroad: Anna M. Clough's father was a Railroad Station Agent in 1870 and Mary A. Lincoln's father was a Lessee of the B&B Railroad in Bucksport, Maine in 1880. (Mary A. Lincoln was not one of the two female accountants who work for the railroad in 1880;

however, her brother was a Railroad Clerk.) Among the commerce-related occupations were Produce Trader, Grocer, Merchant, and Provision Dealer.

The remaining fathers' occupations are what are now deemed to be trades: Plasterer, Machinist, Blacksmith, Shoe Cutter, Steam Engineer, House Carpenter, Joiner, and Tool Maker. The only farmer living in 1880 was Lydia L. King's father in New Bedford, Massachusetts; however, Emma Ladd's father, deceased by 1880, was listed as a farmer in Kansas in 1870. Fourteen of the 25 fathers (56%) had trade or farming occupations. Only one mother had an occupation listed in 1880 and she was Kate Byram's mother employed in Washington DC as a dressmaker.

Although there was only one accountant parent, there were three pairs of accountant sisters among the 44 female accountants in 1880. These women were: (1) Sarah C. Marden, 39, and Alice H. Marden, 30, who lived in Chelsea, Massachusetts, with both of their parents; (2) Mary Stone, 37, and Helen Stone, 27, born in New York and residing in West Decorah, Iowa, with their mother; and (3) Mary A. Allen, 42, and Clara G. Ewer, 36, widow mentioned above. Clara G. Ewer's son followed in his mother's accounting footsteps. In the 1890 Boston, Massachusetts Directory, George A. M. Ewer was listed as a Clerk in the Tax Commission Office at the State House. While not accountant sisters Helen M. Johnson was an accountant in Portland, Maine, and lived with her younger sister, Emma, who was listed as a "Bookkeeper" in the 1880 Census.

Twenty-three female accountants lived in familial households (not boarding rooms) where other family members had occupations listed in the 1880 Census. This non-accounting employment was primarily education or office work. Ten women accountants had sisters who were teachers or music teachers and two women had sisters who were

saleswomen. Lizzie P. Miller, 25, of Fairhaven, Massachusetts, resided in a familial household that consisted of her mother and three sisters. Lizzie's twin sister was a Doctor, another younger sister was a Shirt Factory Overseer, and the youngest sister worked in the shirt factory. Ellen Moore's two sisters were both Copyists (widespread use of the typewriter in large offices does not occur until the late 1880s [Bliven, 1954]). Two women had brothers who worked in offices as a bank clerk or a broker. Emma B. Ross's brother was a Dealer in Fire Arms. Only three female accountants had male siblings who worked in trades – laborer, carpenter, and machinist – and all of their fathers had themselves worked in trades or farming. Probably the most unusual occupation of a household member was that of Lavinia Knowles's grandmother: Insect Powder Manufacturer.

The number of siblings and birth order of the female accountant were family relationship factors that could influence occupation choice. Difficulties in obtaining accurate family membership and size from the US Census precluded any definitive exploration of this issue. Whoever was present in the dwelling on the date of the Census is included in the Census results so if a sibling is away from the home he or she was not listed on the Census with his or her family. An example of this was Lydia L. King, a New Bedford, Massachusetts, accountant, who was listed with her family in both the 1880 and 1860 Censuses but was missing from the family's listing in the 1870 Census. Siblings listed on the 1880 Census schedule will not include a sibling who had permanently left the family residence (got married for example). The ten-year gap between censuses also created difficulties in capturing data on all siblings and the 1870

Census merely lists names but does not indicate relationships to the head of household. With these disclaimers, the siblings that were listed in the 1880 Census tended to be female and the accountant sister tended to be either the oldest or youngest sibling located.

Data collection for parents was readily accomplished for those female accountants who lived at home. Sixteen fathers were living in 1880 and their average age was 59 years old. Twenty-eight mothers were living in 1880 and their average age was 54.6 years old. While these ages are not considered old by contemporary standards in 1880 the life expectancy for a white person (men and women combined) born in 1880 was 40.5 years [Haines, 2008]. As the fathers were born on average in 1821 and the mothers born in 1825 on average, an earlier year's data is a more appropriate measure. The earliest data available is for 1850 when the average life expectancy was 39.5 years [Haines, 2008]. Given these average life expectancies both the mothers and the fathers of these female accountants are in age groups that could be considered aged; however, only three of the 16 fathers were listed as retired and the other 13 were gainfully employed. These single, female accountants may have found themselves in a position where they were potentially caring for their parents in the near term.

Economic Well Being

The 1880 Census does not have questions about salaries or value of personal or real property as does the 1870 Census but it is possible to determine from the household members if there was a domestic servant employed. While there were 44 female accountants there were three less households as the three pairs of sister accountants lived

together. The one accountant who resided in an insane asylum was excluded from the household total. This left a total of 40 households.

Four of the 40 households (10%) employed one domestic servant and all of these households were multi-generational families. One household had three domestic servants; however, the female accountant boarded in this household headed by a manufacturer. It was more likely that the financial wherewithal to hire the three servants came from the manufacturer's income and not that of the female accountant. Lee [2007] used this measure to assess the economic "well-offness" of US accountants and found that 20 percent of all accountants employed at least one domestic servant. This measure is an indicator of higher economic well-being. Female accountants' ten percent employment of domestic servants is closer to Lee's [2007] finding of one in twelve (8.3%) bookkeeper employment of domestic servants and seven percent employment of a domestic servant by the US population as a whole.

An additional indicator of economic well-being is whether the accountant lived in an individual residence/household or was a boarder/lodger in another household. Eight of the 40 possible female accountant households were lodgers or boarders in other households in 1880. This represented 20 percent of the total households and is an indicator of lesser economic well-being. One of the boarders, Helen D. Postlehauite, lived in the household with three domestic servants mentioned above. Claribel Mickery boarded in a household headed by a Superintendent of a Cotton Mill. None of the other six boarding houses had an indication of wealth, either servants or commercial, higher class occupation among the residents.

Thirty-two of the female accountants lived in residences where at least one member of the preceding generation also lived in the household. All three pairs of accountant sisters lived in multi-generation households, thus when measured in terms of households (instead of number of accountants) 29 of 40 households (72.5%) were multi-generational. Of these 29 multi-generational households, 21 households (72.4%) had all of the working age siblings (working age defined as age 18 and above) in the work force. The 21 households with all siblings working are 52.5 percent of all 40 households.

Collectively the economic well-being indicators that can be obtained/inferred from the 1880 Census data do not indicate female accountants living in high economic conditions. Low employment of servants in their own residences compared to accountants as a whole, one-fifth lived in boarding situations, and most non-boarding female accountants lived in multi-generational homes where all the siblings worked as well, conveys an economic picture of sufficiency rather than prosperity. Women accountants do not appear to have achieved the economic well-being of accountants as a whole in the 1880 Census found by Lee [2007].

1870 Census Results: The Early Years

The 1870 Census was examined to learn about the lives of the female accountants before 1880 and what may have led these women to the occupation of accountant. The official enumeration day of the 1870 Census was June 1, 1870 and all questions were to refer to that date. Although the names of all members of a household were listed the relationships were not recorded. Any person physically in the household on the

enumeration day was listed with the family. (The 1880 Census was the first census to identify the relationship of the individual to the head of household.) As the average age of the female accountants in the 1880 Census was 27.4 years the 1870 Census provided information about the early family lives of most of the women. Twenty-eight of the women (64%) were located in the 1870 Census.

Eleven of the women were reported as attending school and four others between the ages 7 and 16 had no indication of schooling or any occupation. Slightly older Anna M. Clough, 18, was listed as "at home." The only woman in this age group with an occupation in 1870 was Helen M. Field who at age 17 was a Telegraph Operator. She was also the only accountant located in 1870 who moved to another state by 1880 (from Massachusetts to Connecticut). Jennie Welton was age 20 in 1870 and was listed as no occupation. She lived with her mother and sister and three non-related adults and one domestic servant.

The Stone sisters both lived in West Decorah, Iowa, as in 1880, but in different residences. Mary, age 26, was a Copyist and lived with some unrelated people (judging by their surname as the 1870 Census does not indicate relationships). Her sister, Helen, age 17 was a school teacher and lived with her mother. Both sisters live together with their mother in 1880.

Clara G. Ewer, age 24, lived in Sandwich, Massachusetts and was listed as having no occupation. She was already married to George F. Ewer (he died by 1880) and they live with his parents and siblings. George's occupation was listed as "Rel. Merchant."

Two of the 1880 female accountants were older, not working in 1870, and lived with their families. Rebecca Howard was 35 in 1870 and was listed as "At Home." She

was one of three daughters in their thirties who lived with their parents. Mary H. C. Merrill was 31 in 1870 and was listed as "No Occupation." She was most likely already a widow as there was no listing for a male Merrill. Mary had \$200 in Personal Property (possibly inherited) and lived with her mother and sister.

Charlotte W. Wallace was 42 and her occupation was listed as "Cotton Mill." She lived with her mother and sister whose occupation was listed as "in Photographic Rooms." Sarah C. Marden, age 30 in 1870, was a Bookkeeper with \$800 personal property. Sarah was the only 1880 female accountant who was already working in the field of accounting in 1870.

The majority of the female accountants who were located in the 1870 Census lived in the same city and state as they lived in 1880. Only two female accountants changed residence locations between decades – one within New Hampshire (from her family home to an insane asylum) and one from Sheffield, Massachusetts to New Hartford, Connecticut. Lack of movement by 26 of the 28 indicates stability of residence. All of these women except one lived in New England (the other woman lived in Kansas). Sixteen of the 1880 female accountants could not be located in the 1870 Census.

1900 Census Results: Subsequent Career and Personal Characteristics

Given the twenty-year gap (or leap) from 1880 and the practice of women changing their names upon marriage, it was not expected that a large number of women would be traced forward. Annie F. Mathes, 29 in 1880, was a patient in an insane asylum

and Mary H. C. Merrill was listed as an invalid in 1880. Although Charlotte W. Wallace was the oldest female accountant in 1880 at 50 years of age she survived to 1900 and was located in the 1900 Census. The rest of the women were young enough in 1880 with no indicators of ill health in the Census data so they could reasonably have been expected to be alive in 1900. Seven women (16%) were located in the 1900 Census and the son of one woman was located in the 1890 Boston Massachusetts Directory.

Only one woman, Rebecca Howard, was still in the accounting field in 1900 and her occupation was listed as Bookkeeper. She still resided in Fairhaven, Massachusetts, with her sister and never married. The only married woman accountant in 1880, Mary Reath, moved from her 1880 residence of Detroit, Michigan, to Berkeley, California, with her husband and parents-in-law. When she married in 1880 her husband, Thomas Reath, had no occupation but in 1900 the roles had reversed. Mary no longer worked and her husband was a letter carrier.

Mary A. Lincoln of Bucksport, Maine, in 1880, had moved to Portland, Maine, in 1900 and was still single. Her family connections with the Railroad were previously mentioned and continued in 1900 as her brother was still a railroad clerk. Mary was listed as a Cashier in 1900 and another brother was a Civil Engineer. She lived at home with her brothers and her widowed father.

Sarah C. Marden had a Bookkeeper occupation in the 1870 Census, an Accountant occupation in 1880, but in 1900 was listed as a Clerk in a Publishing House. She still lived in Chelsea, Massachusetts, but owned her own home and had an 80-year old housekeeper.

Jane E. Welton appeared in both the 1900 and the 1910 Census for Hartford, Connecticut as Jennie Welton (Jane E. may have been the 1880 census taker's way of writing Jennie). Jane E./Jennie lived in Hartford the entire period and stayed single. In 1900 she was listed as a Clerk and but in 1910 she was listed as a Manicurist.

Charlotte W. Wallace still lived in Manchester, New Hampshire, in a rented home with her sister, Hattie. The 1900 census taker listed Hattie as Charlotte's "partner" but in 1870 and 1880 Hattie was listed as Charlotte's sister. As the two women lived with their mother in the 1870 Census, the sister status is more likely than an early acknowledgement of a gay relationship. At 70 years of age Charlotte did not have an occupation but the house she rented was next door to the Tax Assessor's residence.

Mary E. Upton resided in Bath, Maine in 1880 with her parents, an older sister, and two brothers. In the 1900 Census an M.E. Upton resided in Providence, Rhode Island with the occupation of Nurse. Use of initials was more common in this time period than it is today and the age and place of birth are correct to be the 1880 female accountant Mary E. Upton. There is no other close match in the 1900 Census. Given the available data this is a probable match for Mary E. Upton; however, an occupation change to Nurse seems significant but she had 20 years to obtain the training.

None of the 1880 female accountants had a change in marital status by 1900 and only the female accountant who was married in 1880 moved west. Women who did not change names and lived in the same location were the most likely ones to be located so this result does not indicate the fate of the rest of the 1880 female accountants. Those who were not located could have changed their names due to marriage or died during the 20-year interval between available Census data.

Only one of the seven located 1880 female accountants stayed in accounting and her occupation was listed as the lower status bookkeeper. The experiences of the women who were located in the 1900 Census tends to indicate that occupation as an accountant was not a dedicated career choice in the sense that it is for contemporary women.

Conclusions

A fairly typical picture of an 1880 female accountant emerges from analysis of the US Census data. She was a single white woman who lived in a multi-generational family setting in the same state in which she was born. She was American born of American born parents. She was not the only employed person in the household, her father and any siblings her age or above were also employed. While her family was somewhat more likely to have a domestic servant (10%) than the general population (7%), most female accountants did not have servants.

A second, smaller cluster of female accountants had the same characteristics as the above but lived as a lodger or boarder in someone else's household. These women were also single, white, American born of American born parents but did not have domestic servants.

Their mothers did not have occupations outside the home (with one exception, a dressmaker) but the next generation of women, the 1880 female accountants, did. The change in generations and the changes in the social and economic makeup of the United States enabled the daughters to enter the field of accounting as accountants rather than bookkeepers. While the parents' occupational choices were diverse and not all professions or office-related, the occupational choices of the female accountants' siblings

were almost all in a professional or office capacity. This reflected the changing occupational landscape overall due to the "total restructuring of the office" [Wootton and Kemmerer, 1996, p 555] that started in the 1870s. Fathers of female accountants made their occupational choices prior to this office revolution. Thus even without social barriers regarding gender-appropriate employment the new occupational choices available in the 1880s reduced the decision making impact of father's occupation on the female accountants' occupational choices. Siblings facing the same generational occupational landscape appeared to have some influence given the three pairs of accountant sisters and the one accountant and one bookkeeper pair of sisters. It should be noted that these pairs of sisters also had the same family background, geographic location, and often, economic situation which could individually or jointly have led them to seek accounting employment.

Female accountants in 1880 did not exhibit the immigration patterns that Lee [2007] found for American accountants as a whole. It appears that immigrant women and first generation American women were not participating in the accountant employment opportunities as were their male counterparts and is very slight evidence of exclusionary closure of the profession. The low number of female accountants compared to make accountants is stronger evidence of exclusionary closure of the profession towards women.

The economic well-being did not look as good for female accountants as for male accountants in 1880. Lesser employment of domestic servants, significant percentage of female accountant boarders, many working siblings and living with aged parents who may not have had a pension create a lower economic well-being scenario compared to

that for accountants as a whole found by Lee [2007]. Gender differences were already operating this early.

This study accepted the term as the 1880 female accountants themselves used it. The census data had little information to shed light on the bookkeeper versus accountant divergent occupation debate. The meaning of the term accountant in 1880 is still problematic. Going forward to 1900 only one woman stayed in the accounting field and her occupation was bookkeeper. As only six of 44 female accountants were located in the 1900 Census there are serious limitations on what can be construed from this. However, the experience of Christine Ross, the first woman CPA, who listed her occupation as bookkeeper in 1900 Census may be more indicative of the status of women accountants in 1900.

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Table 1

1880 Residence of Female Accountants

State of Residence	Number of Female		
	Accountants		
New England States:			
Massachusetts	14		
New York	5		
New Jersey	1		
New Hampshire	4		
Connecticut	4		
Maine	3		
Rhode Island	2		
Vermont	1		
Pennsylvania	1		
-			
Washington DC	2		
Midwest:			
Iowa	2 (sisters)		
Illinois	2		
Minnesota	1		
Kansas	1		
Michigan	1		
Total New England	35		
Washington DC	2		
Total Midwest	7		
Total Female Accountants	44		