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#### Edwards and Walker: Accountants in the British census

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## ACCOUNTANTS IN THE BRITISH CENSUS

Abstract: Published reports on censuses of population and the surviving enumeration books on which they were based are key sources for accounting historians. The increasing availability of electronic versions of census enumeration books (CEBs) for Canada, the U.K., and the U.S. offers opportunities for better understanding the history of occupations concerned with the performance of accounting functions. However, census reports and original census documents must be interpreted critically. The paper reports on a study of accountants appearing in the transcribed version of the British CEBs for 1881. It is shown how the published census underreported the number of accountants in Britain and suggests that there are potential inconsistencies in the manner in which accountants were counted. While accounting historians may rely on the high level of accuracy in transcribed versions of the CEBs, transcription errors have been discovered in relation to female accountants, those pursuing occupations spelt in ways closely resembling "accountant," and individuals possessing complex occupational titles. Caution in respect of entries relating to accountant clerks is also suggested.

#### INTRODUCTION

The documentary outputs which emerge from the processes attending official population counts are of increasing interest to accounting historians. For example, studies of accounting and indigenous peoples perceive census taking as a technique of "(ac)counting" which facilitates governance in colonial contexts [Neu, 1999]. The manner in which census authorities classify those performing accounting illuminates shifts in the state's per-

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ception of the occupation and the socio-economic locale of its practitioners [Kirkham and Loft, 1996]. Published reports of the census have been used to track the gendered nature of accounting professionalization [Kirkham and Loft, 1993]. While the published abstracts of the census permit macro and meso-level analyses of accountants and related occupations, the sources from which the published data were compiled, such as the census enumerators' books (CEBs), also permit studies of named individuals. Such sources have proved invaluable for conducting biographical and prosopographical studies of accountants, the investigation of social mobility in the profession, the masculinization and feminization of the accounting function, the location of accountants in contemporary social structures, and the spatial, demographic, and occupational profiling of the craft [Walker, 1988, 2002, 2003; Kedslie, 1990; Carnegie and Parker, 1996; Lee, 1996, 2002, 2006a, b; Carnegie et al., 2000; Parker, 2004; Edwards and Walker, 2007].

While census data can be used to explore numerous sociodemographic themes such as family structure and geographical mobility, it is the information provided about the occupations of individuals, communities, and nations that is especially enlightening. Indeed, information about occupation is "the most used in census analysis" and is also that which is of most interest to accounting historians [Mills and Schürer, 1996a, p. 8, 1996c]. The reason for this is not difficult to find: "The occupational information recorded in the nineteenth-century censuses is of fundamental importance for reconstructing Victorian society" [Higgs, 1996a, p. 94]. Given that occupation is "our best guide to social class," the data contained in the census provide opportunities for studies of contemporary social structures and relationships [Armstrong, 1972, p. 202; Banks, 1978; Mills and Mills, 1989; Mills and Schürer, 1996c]. Data about the occupations of the people may also be utilized to track the structure of the economy and the emergence (or demise) of particular occupational groups such as accountants.

It is not surprising therefore that the individual-level census was the foundation for numerous studies in demographic, economic, local, and social history from the 1960s [Armstrong, 1978; Mills and Schürer, 1996a]. The use of the census for historical investigation has been facilitated in recent years by its increasing accessibility as a primary source. Accessibility has been successively enhanced by the indexing of persons and places appearing in CEBs, the use of microfilm copies of the original documents, and the availability of searchable electronic versions

of the individual-level census. The latter has transformed the scope for exploiting this major source. In particular, the digitized censuses of Canada and Great Britain in 1881 and the U.S. in 1880 are available on CD-Rom, and an increasing number of searchable censuses are available on-line at genealogical websites. Projects to extend the availability of census material through electronic media are advancing apace.<sup>1</sup>

Given the scale and significance of this source and its potential for accounting history research, the time appears ripe for a discussion of some of the methodological issues which emerge from its use. The current paper focuses on three themes emergent from a comprehensive investigation of the occupation of accountant using the transcribed version of the enumeration books relating to the British census of 1881. First, the paper describes how the source was generated and indicates the scope for error. While it is acknowledged that inaccuracies in the individual-level census can relate to reported name, address, age, marital status, birthplace, or other data categories, the emphasis here is on the key variable of occupation. Second, the paper discusses the issues surrounding the classification of the occupation of accountant by the British census authorities and explains why the number of accountants reported in the published census abstracts differs from the totals found in the CEBs. Third, it explores the accuracy of the transcribed version of the CEBs so far as researching accountants is concerned and alerts researchers to some of the problems encountered when using this vast and important source.

#### TAKING THE CENSUS

Decennial censuses began in Britain in 1801. Initially they were headcounts, but from 1841 and 1851 the census became a sophisticated enumeration of named individuals [Drake, 1972; Higgs, 1996a, pp. 7-11]. During the 19th century, the census represented the single most comprehensive attempt by the state to amass socio-economic information: "It was the most ambitious exercise of its type, covering every family in the land and requiring the co-operation of every household head" [Wrigley, 1972, p. 1]. The focus of the present contribution, the British census

<sup>&#</sup>x27;The most important of these projects is the North Atlantic Population Project (NAPP). The NAPP is a major venture which utilizes the available digitized censuses of the late 19th century to create a harmonized database of almost 90 million individuals in Canada, Great Britain, Iceland, Norway, and the U.S. [see Roberts et al., 2003a].

of 1881, was perceived by contemporaries as one element in a greater statistical venture: "The success of the coming Census of the Motherland will be hailed with interest not only by her own people, but by the growing millions in her Colonies across the Atlantic, or in the Southern hemisphere where a like Census is taken to fill up the roll of the English race" [RG27/5, fol. 43].

For the purpose of taking the ninth census of England and Wales on April 4, 1881, the country was divided into 34,711 enumeration districts, and an enumerator appointed for each.<sup>2</sup> The size of the enumeration district was based on the estimated capacity of the enumerator to visit all the houses within its boundaries in a single day [RG27/5, fol. 27]. In towns, enumeration districts were determined on the assumption that an efficient enumerator could visit 200 houses; in rural districts, that he could travel 15 miles. Separate arrangements were made for the enumeration of residents of public institutions, hotels, and vessels. Those appointed as enumerators were expected to be aged 18 to 65 years, be "intelligent, trustworthy, and active; he must write well, and have some knowledge of arithmetic" and be "temperate, orderly, and respectable" [RG27/5, fol. 2]. Their stature was enhanced by the inclusion of clergy and other professional men among their number [RG27/5, fol. 43]. Despite these safeguards, there were inevitably variations in the enthusiasm and capabilities of those appointed as enumerators [Drake, 1972; Mills and Schürer, 1996b].

During the week commencing March 28, 1881 the enumerator delivered to each occupier a householder's schedule. Under the Census Act, 1880, the householder was obliged to complete the schedule on census (Sunday) night. Refusal or willing submission of false information could result in conviction and a penalty of £5. The reverse of the householder's schedule contained detailed instructions on the filling up of the column headed "Rank, Profession, or Occupation." This emphasized that individuals with more than one distinct occupation were to inscribe them in order of importance. Those engaged in commerce (the order to which accountants were assigned) were requested to state the branch of commerce or business in which they were engaged [RG27/5, fol. 5]. It should be noted

 $<sup>^2</sup>$ The census for Scotland was conducted in a broadly similar way [Schürer and Woollard, 2002, p. 3].

<sup>&</sup>lt;sup>3</sup>It is worth iterating at this point that the census is a snapshot; it concerns the occupation of the individual on census-day, not necessarily that pursued in the recent past.

that the individual submitted information about occupation on the assumption that this was not for public disclosure, unlike that provided for a local or trade directory. This means that occupational descriptions may be less full in the census but, as the intention was not to attract business, also more reflective of internalized notions of occupational status.

The completed householders' schedules were to be collected on the 4th and no later than the 5th of April. When collecting the schedules, the enumerator was requested to see that the details had been correctly entered and ask any questions to help achieve that objective. He was obliged to "pay particular attention to the column headed 'Rank, Profession, or Occupation,' taking care that what is inserted under that head is in conformity with the instructions" [RG27/5, fol. 2]. Indeed, on March 14, the Registrar General had specifically requested that enumerators be instructed on the need to provide accurate and full entries of (particularly industrial) occupations as, "It was found at the last Census that very great trouble and inaccuracy resulted from the indefinite terms that were frequently used in describing the Occupations of persons in the Schedules" [RG27/5, fol. 41]. In altering the schedules, the enumerator was asked not to make erasures but draw a line through incorrect entries.

Having collected the householders' schedules, the enumerator was required to copy their contents into an enumeration book, and to do so legibly and in strict accordance with instructions. An example from a completed page of an enumeration book is reproduced in Figure 1. This process resulted in the correction (and introduction) of minor errors, standardization of occupational terms, and additions by the enumerator on the basis of local knowledge [Schürer and Woollard, 2002, p. 4]. Between April 4 and 11, 1881, the enumerator submitted the householders' schedules and completed enumeration book to the local Registrar of Births and Deaths (of whom there were 2,176 in England and Wales, each heading a sub-district). The Registrars examined and revised the enumeration books and compared the householders' schedules with the CEBs to ensure completeness. accuracy, and compliance with instructions. The Registrar was also remitted "To see that the column headed 'Rank, Profession, or Occupation,' is filled up in conformity with the Instructions" [RG27/5, fol. 2]. In practice, however, Registrars do not appear to have introduced large-scale amendments [Schürer and Woollard, 2002, p. 5]. Once the enumeration books were examined and corrected as necessary, the Registrar signed a certificate, and by April 25 sent the enumeration books for his sub-district

(and other documents) to a Superintendent Registrar. The Registrar sent the householders' schedules to the Census Office in London. The schedules were later destroyed.

#### FIGURE 1

Example of a Page from a Census Enumeration Book (Illustrating the Similar Appearance of "Accountant," "Annuitant," and "Assistant," Marks and Annotations)

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Transcribed Version of the Above Page by the Genealogical Society of Utah of the Church of Jesus Christ of Latter-Day Saints

Dwelling: 36 Pershore Rd Census Place: Edgbaston, Warwick, England Source: FHL Film 1341707 PRO Ref RG11 Piece 2954 Folio 5 Page 4 Marr Age Sex Birthplace Ann GREENWAY U 60 F B'ham, Warwick, England Rel: Head Occ: Annuitant Harry LISSITER U 22 M B'ham, Warwick, England Rel: Boarder Occ: Accountant Alice CARWEL U 16 F B'ham, Warwick, England Rel: Serv Occ: General Serv Frank MOSS U 32 M London, Middlesex, England Rel: Lodger Occ: Watch Importer

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Dwelling: 37 Pershore Rd				
Census Place: Edgbaston, War	rwick	, Eng	land	
Source: FHL Film 1341	707	PRO	Ref	RG11 Piece 2954 Folio 5 Page 4
	Marı	Age	Sex	Birthplace
Henry NICHOLLS	M	55	M	B'ham, Warwick, England
Rel: Head				
Occ: Retired				
Caroline NICHOLLS	M	51	F	B'ham, Warwick, England
Rel: Wife				
Emma NICHOLLS	U	17	F	B'ham, Warwick, England
Rel: Daur				
Henry R. NICHOLLS	U	15	M	B'ham, Warwick, England
Rel: Son				,
Tion oon				
Dwelling: 38 Pershore Rd				
Census Place: Edgbaston, War		. Eng	land	
				RG11 Piece 2954 Folio 5 Page 4
Source. THE Thin 13 (1				Birthplace
Mary A. GARDNER	W			Nazeby, Northampton, England
Rel: Head	**	0)	•	Nazeby, Northampton, England
Occ: Annuitant				
Sarah RINGROSE	U	64	Б	Nazeby, Northampton, England
Rel: Sister	U	04	Г	Nazeby, Northampton, England
Occ: Annuitant				
	T.1	27	3.6	D'I W 1 E . 1 . 1
Frederick GARDNER	U	36	IVI	B'ham, Warwick, England
Rel: Son	TT	1	1) (	A
Occ: Stamper & Piercer (				
Amy STOKES	U	22	F	Bilston, Stafford, England
Rel: Serv				
Occ: General Serv				
Dwelling: 39 Pershore Rd				
Census Place: Edgbaston, War		Eng	land	
				RG11 Piece 2954 Folio 5 Page 4
				Birthplace
Samuel STAINTON	M	50	M	B'ham, Warwick, England
Rel: Head				,,
Occ: Hosier				
Mary A. STAINTON	M	52	F	B'ham, Warwick, England
Rel: Wife		~ <u>~</u>	•	2 min, war wen, England
Mary A. STAINTON	U	23	F	B'ham, Warwick, England
Rel: Daur	U	23	1	Bham, wai wick, England
Occ: Shop Assistant (Hos	ior)			
		22	М	D'l Wi-l- Eli
Harry P. STAINTON	U	22	IVI	B'ham, Warwick, England
Rel: Son	`			
Occ: Clerk (Printers Offic				
Alfred STAINTON	U	19	M	B'ham, Warwick, England
Rel: Son				
Occ: Clerk (Manfrs Office				
Kate STAINTON	U	18	F	B'ham, Warwick, England
Rel: Daur				
Occ: Shop Assistant (Hos	ier)			

50

Annie STAINTON U 16 F B'ham, Warwick, England

Rel: Daur

Occ: Shop Assistant

Albert STAINTON 12 M B'ham, Warwick, England

Rel: Son Occ: Scholar

Dwelling: 40 Pershore Rd

Census Place: Edgbaston, Warwick, England

Source: FHL Film 1341707 PRO Ref RG11 Piece 2954 Folio 5 Page 4

Marr Age Sex Birthplace

Henry KNOTT W 67 M Shoreditch, Middlesex, England

Rel: Head

Occ: Commercial Traveller

Mary KNOTT U 17 F Edgbaston, Warwick, England

Rel: Daur

Alfred H. KNOTT U 16 M Edgbaston, Warwick, England

Rel: Son

Occ: Architects Pupil (Art Student)

Kate H. WHITEFIELD 12 F Edgbaston, Warwick, England

Rel: Niece Occ: Scholar

Jane THORPE W 42 F Bridlington, York, England

Rel: Serv

Occ: Housekeeper

Source: Midland East Region, 1881 British Census and National Index [1999].

The 630 Superintendent Registrars, each of whom headed a registration district, were remitted by the Registrar General to ensure that census returns "shall be both accurate and complete as to reflect credit upon yourself and all concerned" [RG27/5, fol. 27]. However, the Superintendent Registrar was not required to make a minute examination of the kind expected of Registrars. Rather, the "inspection should be sufficiently complete to satisfy yourself that the Registrar has in every case duly performed the duties required of him, and that all inaccuracies have been corrected as far as possible, so you may be enabled to sign the Certificate to that effect in each Enumeration Book" [RG27/5, fol. 27]. The enumeration books were to arrive at the Census Office, London, "in rapid succession" from the end of April.

At the Census Office, the enumeration books were reviewed again by clerks. They were then used to compile abstracts of data for publication [Higgs, 1996a, p. 15]. Conscious that undetected errors would cause inconvenience during subsequent stages of abstraction, the Registrar General issued specific instructions to clerks on revising the enumeration books [RG27/5, fol. 52]. Abstracting clerks were engaged to classify the occu-

pations and ages of the population. Aided by an alphabetical and classified listing of occupations,<sup>4</sup> the work of abstraction involved assigning the occupation entered in the enumeration book to one of 399 occupational headings. Ticks were entered on abstract sheets for males and females under each occupational heading falling in various age groups. It was at this stage that most of the annotations which appear in the surviving enumeration books were made. As discussed below, these annotations often assist the researcher but can also cause confusion [Tillott, 1972].

Traces of abstractor's work include ticks, corrections to occupational entries, and the insertion of abbreviations of occupational titles and codes. Occupations in the enumeration books which did not appear in the alphabetical list or which could not be assigned on the basis of common sense were entered at the bottom of the abstract sheet to be "dealt with by a special person" [RG27/5, fol. 69]. Specific instructions were given for ticking various "special cases." Although accountants were not identified as special cases, the instructions did cover allied occupations such as agents, auctioneers, bookkeepers, cashiers, and clerks. The instructions are also important to the treatment of accountants with multiple occupations, those out of employment, and dealing with missing occupational information in a district with a dominant industry [RG27/5, fol. 69].

Despite the existence of the alphabetical lists, it is not clear that occupational information was always treated consistently by different abstracting clerks [Schürer and Woollard, 2002, p. 7]. Abstractors were remunerated according to the amount and accuracy of the work performed. It was recommended that they initially work slowly to become acquainted with the occupational headings and the classification of orders and sub-orders. Knowledge is sparse about the effectiveness of the limited checks performed on the accuracy of abstractors, some of whom were temporary employees prone to errors and the misclassification of occupations [Schürer and Woollard, 2002, pp. 7-8].

The abstracts were the basis for the preparation of statistical tables in the published reports of the census. It is important to recognize that the classification and structure of the occupational data reflected contemporary socio-cultural circumstances and the specific objectives of the Registrar General [Higgs, 1990,

<sup>&</sup>lt;sup>4</sup>The list of 1881 replaced the 'dictionary' used at previous censuses. The dictionary had contained 7,000 occupational names, many of which were found to be no longer in use [*General Report*, 1883, p. 26].

1996a, pp. 154-159]. Users of the published data should be alert to comments made in the General Report of the census which appeared in 1883. This referred to the difficulties associated with the tabulation of occupational data. It was conceded that, "The most laborious, the most costly, and, after all, the least satisfactory part of the Census, is that which is concerned with the occupations of the people" [General Report, 1883, p. 25]. The report referred to the vast array of, often obscure, occupational designations; single occupations which were known by different names; how the same name was used for totally different occupations; how careless enumerators failed to record occupations with the necessary precision; the impossibility of embracing all those working in an occupation within a single heading, necessitating the making of "arbitrary rules"; the problem of classifying individuals pursuing more than one occupation; and, whether apprentices, assistants, the unemployed, and the retired should be allocated to the occupation concerned. The report concluded that abstracting the occupations of millions of individuals on the basis of enumeration books of varying quality was a task of "gigantic dimensions...in which strict and unfailing accuracy is practically unattainable. We made every effort to secure as great accuracy as was possible under the circumstances, but we are bound to state that the margin that must be allowed for error is very considerable" [General Report, 1883, p. 28], particularly where the occupation concerned was ill-defined.<sup>5</sup>

The foregoing illustrates that there was scope for error and alteration in the original source from which modern transcriptions of the CEBs are drawn, particularly in relation to occupation. Householders' schedules may have contained inaccurate or false information [Higgs, 1996a, p. 16]. There were inevitably some transmission errors from householder's schedule to enumeration book. Enumerators, Registrars, and Census Office clerks may have amended the record to enhance the accuracy of information but they also introduced errors [see, for example, Mills and Schürer, 1996c; Woollard, 1997]. Corrections and oth-

<sup>&</sup>lt;sup>5</sup>The *Report* of the Census of Scotland, 1871, was even more candid on this point. While confidence was expressed in the totals reported as occupied in orders and sub-orders, the numbers assigned to individual occupations were "somewhat indefinite" [*General Report*, 1883, p. xxxvi]. It was explained that "the classification adopted is so prolix and minute, embracing nearly seven hundred specific Occupations, that, train as we would, not one-half of the clerks who were employed in making the Abstracts could be got to master the exact positions of these seven hundred Occupations in the forms of Table which we used, so that no great confidence can be placed in the particular numbers assigned to each Occupation."

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er changes reflect the practices of the numerous enumerators, registrars, and clerks across the country. Higgs [1996a, p. 16] comments: "In general the work appears to have been done conscientiously but users must be aware of the failings of particular enumerators, local peculiarities and the problems associated with the interpretation of certain types of information."

#### CLASSIFICATION ISSUES

Scholars are advised to assume a critical stance when using the published occupational tables in census reports, particularly given the scope for errors arising between the completion of the original householders' schedules, the compilation of abstract statistics, and the scope for those involved in the enumeration process to interpret and amend occupational information in accord with contemporary ideals [Higgs, 1996b]. The availability of the CEBs, in tandem with the published reports of the census and documents relating to the procedures to be followed by those engaged in the census, permit an evaluation of the ways in which the reported numbers in particular occupations such as accountancy were arrived at by census authorities, and also to assess their consistency and accuracy.<sup>6</sup>

In contrast to the census of 1871, in 1881 the occupational classification devised for England and Wales was also applied to Scotland [General Report, 1883, p. xxv]. At the end of the enumeration and abstracting process, 11,606 individuals in England and Wales were counted under the heading "Accountant." This figure represented a 20% increase on the corrected total reported for 1871 [General Report, 1883, p. 34]. In Scotland 1,136 accountants were counted as were 50 in the Islands. The number of commercial clerks in England and Wales (which included bookkeepers and cashiers) was double that of a decade previously though changes to the manner in which clerks were classified rendered the data "not comparable." The number of individuals identified as accountants from the transcribed enumeration

<sup>&</sup>lt;sup>6</sup>For a history of the published occupational statistics during the 19th century, see Bellamy [1978] and Higgs [1996a, pp. 154-168].

<sup>&</sup>lt;sup>7</sup>The NAPP database relating to the British Census, 1881, counts 13,107 accountants (11,891 in England and Wales, 1,161 in Scotland, and 55 in the Islands). This total is reasonably close to that reported in the published census reports due to the NAPP adoption of conventions on the counting of occupations which closely approximate those found in the instructions issued for taking the census in 1881. The NAPP applies a standard definition of accountant which accommodates cultural variation among the countries covered by the project [Roberts et al., 2003b].

books for the current study was 16,180 (14,280 in England and Wales, 1,833 in Scotland, and 67 in the Islands). It is therefore appropriate to suggest that in its treatment of accountants, the classification regime employed by the Census Office "may have distorted the occupational landscape" [Woollard, 2004, p. 39].

The 1881 census identified accountants as an occupation in Class III, the Commercial Class, Order 5 "Persons Engaged in Commercial Occupations," Sub-order 1 "Merchants and Agents." The classified section of the Instructions to the Clerks Employed in Classifying the Occupations and Ages of the People identified four occupational titles which fell under the heading "accountant" - accountants, actuaries, auditors, and chartered accountants.8 Table 1 reveals that further relevant detail was provided in the alphabetical section of the *Instructions* for classifying accountants. The fact that the alphabetical section of the *Instructions* specifically allocated certain accountants, actuaries, and auditors to other occupational categories indicated that those working in particular sectors should be counted in that sector if an appropriate occupational heading was included in the classification. Hence, dock accountants were to be included in "Harbour, Dock Service" as opposed to "accountants"; actuaries in insurance companies were counted in "Insurance Service" and traveling auditors were classified as "Other Railway Officials." Further, those occupied in the finance function of local authorities were to be classified not as "accountants" but as municipal officers in the Professional Class. All bookkeepers, cashiers, and clerks who were not specifically classified elsewhere, were to be counted as "Commercial Clerks."

<sup>&</sup>lt;sup>8</sup>The Instructions to Clerks produced for the 1871 Census of England and Wales included only accountants and auditors under the heading "Accountant." It was also noted that "Accountant in Corn Trade" would be classified as "Corn Merchant." All actuaries except those in government service were to be counted as "Insurance Service" rather than "Accountant." Note also that "Accountant" was defined as an "(M)" occupation, meaning that only males were allocated to it. The description "Book-keeper" was classified as either "Commercial Clerk" or "Woollen Cloth Manufacture." Bank and colliery cashiers were treated as "Bank Service" and "Coal Mine Service" respectively and numerous categories of clerks and secretaries were allocated to the relevant sector in which they were employed as opposed to the catch-all category of "Commercial Clerk" [RG27/4 Part B, fol. 85; Bellamy, 1978; Higgs, 1996a, pp. 161-162]. It should also be noted that a different Classification of Occupations was adopted in Scotland for the 1871 census. Of particular interest was the classification of accountants in two sub-orders - "Lawyers" (where 421 accountants were counted) and "Mercantile Pursuits" (where 686 were counted). For the background to this, see Walker [1988, pp. 16-17].

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Official Classification of Occupations Relating to the Accounting Function, 1881 Census

				,
Occupational Description	Class	Order	Sub-Order	Assigned Occupational Heading
Account Book Maker	Λ	Vegetable Substances	Paper	Stationer
Account Book Ruler	Λ	Books, Prints and Maps	Books	Printer
Account Collector	III	Commercial	Merchants and Agents	Commercial Clerk
Accountant	III	Commercial	Merchants and Agents	Accountant
Accountant (Dock)	III	Conveyance	Canals, Rivers and Seas	Harbour, Dock Service
Actuary (not Insurance)	III	Commercial	Merchants and Agents	Accountant
Actuary (Insurance Company)	III	Commercial	Insurance	Insurance Service
Apprentices and Assistants		Assigned to occupation in	Assigned to occupation in which apprenticed or assisted	isted
Auditor	III	Commercial	Merchants and Agents	Accountant
Booker	III	Commercial	Merchants and Agents	Commercial Clerk
<b>Bookkeeper</b> (in all trades)	III	Commercial	Merchants and Agents	Commercial Clerk
Borough Chamberlain	I	General and Local Government	Local Government	Municipal Officer
Cashier (in all trades)	III	Commercial	Merchants and Agents	Commercial Clerk
Chamberlain	П	Domestic Offices or Services	Other Services	Office Keeper
Chartered Accountant	III	Commercial	Merchants and Agents	Accountant
City Treasurer	I	General or Local Government	Local Government	Municipal Officer

TABLE 1

Official Classification of Occupations Relating to the Accounting Function, 1881 Census

# (Continued)

Occupational Description	Class	Order	Sub-Order	Assigned Occupational Heading
<b>Clerk</b> (in all trades, <i>unless</i> specified below)	III	Commercial	Merchants and Agents	Commercial Clerk
Clerk, Army	I	Defence	Army	Army Officer
Clerk, Bank	III	Commercial	Dealers in Money	Bank Service
Clerk, Book Stall	Λ	Books, Prints and Maps	Books	Bookseller
Clerk, Civil Service	I	General or Local Government	National Government	Civil Service Officer
Clerk, Insurance Offices	III	Commercial	Insurance	Insurance Service
Clerk, Law	I	Professional	Legal	Law Clerk
Clerk, Navy	I	Defence	Navy	Navy Officer
Clerk, Railway	III	Conveyance	Railways	Railway Officials
Clerk, Shorthand	I	Professional	Literary and Scientific	Reporter
Clerk of Works	Λ	Houses, Furniture and Decorations	Houses	Builder
Collector (Dock)	III	Conveyance	Canals, Rivers and Seas	Harbour, Dock Service
Collector of Accounts, Debts or Rents	III	Commercial	Merchants and Agents	Commercial Clerk
Collector of Monthly Accounts (Railway)	III	Conveyance	Railways	Other Railway Officials

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Official Classification of Occupations Relating to the Accounting Function, 1881 Census

		(Continued)		
Occupational Description	Class	Order	Sub-Order	Assigned Occupational Heading
Collector (undefined)	III	Commercial	Merchants and Agents	Commercial Clerk
Commercial Clerk	III	Commercial	Merchants and Agents	Commercial Clerk
Debt Collector	III	Commercial	Merchants and Agents	Commercial Clerk
Examiner of Accounts (Dock)	III	Conveyance	Canals, Rivers and Seas	Harbour, Dock Service
Housekeeper (Female)	II	Domestic Offices or Service	Domestic Service	Domestic Indoor Servant
Manager/Managing Director (if nature of business is stated, assign to business, otherwise)	Λ	General or Unspecified Commodities	Makers and Dealers	Manufacturer, Manager, Superintendent
Mill Steward	Λ	Textile Fabrics	Silk	Silk Manufacture
Mine, Mineral Steward	Λ	Mineral Substances	Miners	Mine Service
Mining Records Keeper	I	General or Local Government	National Government	Civil Service Officer
Owners Account Man	Λ	Mineral Substances	Miners	Copper Miner
Purser (Tin Mine)	Λ	Mineral Substances	Miners	Tin Miner
Purser (Lead Mine)	Λ	Mineral Substances	Miners	Lead Miner
Savings Bank Actuary	III	Commercial	Dealers in Money	Bank Service
Scrivener	Ι	Professional	Legal	Law Clerk

TABLE 1

Official Classification of Occupations Relating to the Accounting Function, 1881 Census

# (Continued)

Occupational Description	Class	Order	Sub-Order	Assigned Occupational Heading
Secretary (not private, in any trade, unless specified below)	III	Commercial	Merchants and Agents	Commercial Clerk
Secretary (Cemetery)	I	Professional	Clerical	Church Officer
Secretary (Club)	П	Domestic Offices and services	Domestic Service	College, Club Service
Secretary (Private)	I	Professional	Literary and Scientific	Literary Service
Spinning Mill Steward	Λ	Textile Fabrics	Silk	Silk Manufacture
Steward (if nature of business is stated, assign to business, otherwise)	Λ	General or Unspecified Commodities	Makers and Dealers	Manufacturer, Manager, Superintendent
Tax Assessor, Collector	I	General or Local Government	Local Government	Municipal Officer
Timekeeper, Time Clerk (if nature of business is stated, assign to business, otherwise)	Λ	General or Unspecified Commodities	Makers and Dealers	Manufacturer, Manager, Superintendent
Trade Protection Society's Service	III	Commercial	Merchants and agents	Officer of Commercial Company
Traveling Auditor	III	Conveyance	Railways	Other Railway Officials
Treasurer (Theatre and Opera)	I	Professional	Artists	Art, Music Service

Source: Compiled from RG27/5, fol. 69.

Other census instructions are relevant to the classification of accountants. First, with the exception of army and navy officers, paupers, and prisoners, those described as retired or formerly employed in a specified occupation were to be counted as "Persons without Specified Occupations" in the Unoccupied Class (VI). Second, individuals who followed more than one occupation were to be allocated to that which appeared to be "the main or more important one. If there be none such, the first in the entry is to be selected" [emphasis in original, Instructions to Clerks, p. 2; also General Report, 1883, p. 28]. Hence, in the absence of other information a "stockbroker and accountant" would be counted as a stockbroker. Third, there was an exception to the above rule in the case of auctioneers, an occupation with which accountant was sometimes combined. If a multiple occupational title included "auctioneer," the individual was allocated to that category. Hence, an "accountant, estate agent and auctioneer" would be counted as an auctioneer even though accountant is the first stated occupation [General Report, 1883, p. 2]. A similar rule may also have been applied to the small number of accountants who farmed land. The instructions suggested that these be counted as farmers irrespective of whether this was their main or a secondary occupation [Woollard, 2004].

Although researchers cannot be sure that they always indicate the basis for the final count reported in the census, annotations in the original CEBs, most of which were entered by clerks in the Census Office, provide insights to issues arising in the classification of accountants and related occupations. These annotations potentially indicate departures from the strict application of the classification prescribed in the instructions issued to clerks. It is quite likely that some of the occupational descriptions relating to accountants were not easily resolved by reference to the limited entries in the alphabetical listing, in which case, as noted above, the clerk was requested to apply common sense or seek the opinion of "a special person." A summary of the classification of accountants suggested by annotations in the enumeration books is provided in Table 2.

Despite the fact that the *Instructions* to census clerks indicate that accountants were to be counted under the heading "Accountant," a significant number of entries in the enumeration books are annotated with "clerk," the proportion being higher among those identified as female accountants (as discussed below), teenage accountants, and those resident in certain districts. Some apprenticed accountants are also marked as clerks. It is possible that abstractors and other reviewers of the CEBs

TABLE 2
Occupational Classification Suggested by Annotations in Census Enumeration Books, 1881

Occupational Description	Classification Suggested by Annotation of Certain Cases
Accountant	Commercial Clerk
	(disproportionately applied to
	female accountants, teenage
	accountants and in certain
	localities)
Accountant (Apprentice, Articled, Assistant)	Commercial Clerk
Accountant Clerk	Commercial Clerk
Actuary	Accountant
Actuary in Bank	Bank Service
Agent's Accountant	Commercial Clerk
Auditor (including audit: assistant, clerk, officer and cash auditor)	Accountant
Auditor (District)	Some <i>Accountant</i> but (most appropriately also) as <i>Municipal</i> ,
	Parish, Union, District Officer, and
	Civil Service (Officers and Clerks).
Auditor (District) of Railways	Other Railway Officials and Servants
Bank Accountant	Bank Service
Brewery Accountant	Commercial Clerk
Broker's Accountant	Commercial Clerk
Builder's Accountant	Commercial Clerk
Chartered Accountant	Accountant but in one case Commercial Clerk
Colliery Accountant	Commercial Clerk
Commercial Accountant	Commercial Clerk
Docks Accountant	Commercial Clerk unless naval Civil
	Service (Officers and Clerks)
Draper's Accountant	Commercial Clerk
Engineer's Accountant	Commercial Clerk
Factory, Foundry, Mill or Works	Commercial Clerk
Accountant	
(In metals, utilities and various textiles)	
Farm Accountant	Farm Bailiff
Grocer's Accountant	Commercial Clerk
(and various other retailers)	
Insurance Accountant	Life, House, Ship, &c., Insurance Service
Local Government Accountants (accountants to corporations, boroughs, school boards, boards of guardians, parishes)	Municipal, Parish, Union, District Officer
Merchant's Accountant (various)	Commercial Clerk

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TABLE 2

Occupational Classification Suggested by Annotations in Census Enumeration Books, 1881

(continued)

Occupational Description	Classification Suggested by Annotation of Certain Cases
Mine/Quarry Accountant	Commercial Clerk
Money Scrivener	Accountant
National Government Accountants (accountants to various government departments, the military and various commissions and national boards)	Civil Service (Officers and Clerks)
<b>Public Company Accountant</b>	Commercial Clerk
Publisher's Accountant	Commercial Clerk
Railway Accountant	Other Railway Officials and Servants
Solicitors/Law Accountant	Law Clerk and others connected with Law
Warehouse Accountant (various)	Commercial Clerk

made alterations to the occupation of individuals in accord with the demographic and socio-economic circumstances indicated by the information contained in the enumeration book (indeed, they were asked to do this). Similarly, whereas the instructions indicate that dock accountants should be classified as "Harbour, Dock Service," the most common annotation for those so returned in the CEBs is "clerk."

Other annotations indicate a predilection by census officials to classify individuals as clerks rather than accountants. In a number of instances where the first named occupation is accountant but is also attended by cashier, bookkeeper, or collector, "clerk" (rather than accountant) is annotated. As suggested above, it appears that some census clerks used contextual evidence to form a judgment about an individual's main occupation [Tillott, 1972]. A review of a sample of those appearing in the CEBs as "clerk (accountant)" suggests that these were assumed to be commercial clerks. In one case "clerk" was even added to the occupational description of a chartered accountant – a title which was specifically identified in the instructions to abstracting clerks as included within "accountant." Conversely, there are a small number of instances where an unlikely occupation was annotated as "accountant" in the CEBs. These include a money scrivener and a notary public in practice.

Initial searches of the transcribed enumeration books for 1881 revealed 288 cases where the sex of the accountant was

identified as female. However, the published census reports enumerated only 89 female accountants (all in England and Wales). The manner in which the occupations of female accountants were treated appears to have been conditioned by contemporary social mores and assumptions of gender roles. It has been rightly argued that "both the census authorities in their instructions, and enumerators in carrying them out, exhibited a male prejudice" [Mills and Mills, 1989, p. 69]. The census instructions stipulated that wives and other women with no specified occupation were to be allocated to Class VI "Unoccupied" [see Jordan, 1988; Higgs, 1987]. It was recognized, however, that while most such women were engaged in domestic duties many assisted in the businesses of male relatives [General Report, 1883, Vol. 4, p. 49]. The classification of these economically active women as "unoccupied" may help explain the difference between the small number of female accountants counted in the published census reports and the higher number appearing in the enumeration books. In some instances of females listed as accountants, "accountant" was horizontally struck out in the CEB, perhaps indicating that the woman was considered to have had no occupation. Other annotations in the enumeration books suggest that many female accountants were assumed to be clerks. "Clerk" or a variant thereof was added to the occupational description for 18% of the 190 female accountants identified in the current study. In other instances the occupation of a female baker's accountant was annotated with "assistant" and an accountant in a hotel was identified as an "inn servant."

The annotations contained in the enumeration books also suggest some inconsistencies in the treatment of accountants. While a large number of accountants and "accountant clerks" were annotated as clerks, audit assistants and clerks were sometimes annotated as "accountants." The annotations relating to district auditors indicate uncertainty as to whether the occupation should be classified as accountant, local government service, or national government service. Similarly, while annotations suggest that accountants to banks, insurance companies, local and national government, railways, and solicitors were assumed to be occupied in those sectors, tick marks indicate that many were likely to have been counted as accountants. In Cambridgeshire, for example, three solicitor's accountants were enumerated. The marks suggest that one was counted as a clerk, one as a solicitor's clerk, and one as an accountant. Where the official occupational classification contained no obvious category for placing bureaucratic functionaries operating in a

particular sector, annotations suggest that many accountants were assumed to be commercial clerks, particularly if stated as accountant "at," "in," or "to." But there could also be exceptions. It is not clear why the annotation "clerk" is added to a number of colliery accountants as opposed to the available category "Mine Service."

#### THE CREATION OF THE TRANSCRIBED CEBS

The CEBs for 1881 were made available on CD-Rom in 1999 as the 1881 British Census and National Index. This followed "11 years and more than two-and-a-half million hours of volunteer labor" [1881 British Census, 1999]. The transcription of 1.2 million pages of the original enumeration books and the compilation of a national index of the 30 million individuals therein was performed for the Genealogical Society of Utah of the Church of Jesus Christ of Latter-Day Saints under a license from Her Majesty's Stationery Office. Various genealogical and archival organizations were involved in transcribing. The transcription was performed according to codified procedures, including controls to secure accuracy and completeness [Genealogical Society of Utah, 1993]. In particular, each batch of records was transcribed twice and data input was evaluated and verified. The enormous project was to be completed "as quickly and as cheaply as possible without consequent debasement of quality" [Woollard, 1996, p. 98].

The object of the transcription was to reproduce the original data as closely as possible, retaining obvious errors. Occupational titles were to be transcribed as they appeared in the census. including misspellings and abbreviations. However, some marks in the CEBs were not transcribed. For example, underlining introduced by census officials (to indicate the most significant occupation in a multiple-occupation situation, as in "solicitor, accountant, and estate agent") was not reproduced. While various marks entered in the enumeration books were not transcribed and punctuation is limited, symbols were used in the transcription to indicate annotations in the original, such as crossed out entries and changes of handwriting. In this context one important ambiguity relates to the use of round brackets, as in "(clerk)." In the transcribed version of the census, this indicates that information was contained in round brackets in the enumeration book, but also refers to an entry in handwriting which differs to that of the enumerator or where the information was added or changed when preparing the index to the transcribed

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census. Hence, without reference to the original document, it is not clear whether an entry such as "Accountant (clerk)" is an accountant who practices as a clerk or is an accountant classified by the abstractors as a clerk. It is usually the latter. Double brackets around a term, as in "((accountant))," indicates crossing out in the original census. An example of a transcribed version of a page from an enumeration book is provided in Figure 1.

# THE ACCURACY OF TRANSCRIBED ENUMERATION BOOKS IN RELATION TO ACCOUNTANTS

The transcription of the vast contents of the enumeration books introduced scope for errors of transmission, commission, and data input. Schürer and Woollard [2002, pp. 9, 13] remind us that the database was originally intended for use by genealogists rather than historians. However, they also contend that internal verification procedures were sound and ensured that "the overall accuracy and integrity of the data is equal to, or indeed surpasses, that of similar exercises." It is estimated that the transcription achieved a level of accuracy in excess of 95% [Woollard, 1996]. This optimism was not always shared by micro-level researchers such as genealogists who reported glaring transcription errors in certain individual entries. One notable instance was the recording of Karl Marx as "Karl Wass."

More systematic evaluations of the accuracy of the census transcription suggest greater levels of assurance [Goose, 2001]. A sample study of the transcription for the county of Hertfordshire revealed that only 1.6% of transcribed entries for all variables contained errors sufficiently "serious" to produce incorrect historical data. A further 6.4% of transcribed data contained "minor" errors, but these were of marginal or no interest to historians. In relation to the transcription of occupational data, only 0.3% of entries contained serious errors, and 3.0% contained minor errors. Although the study concluded that the transcription was performed to "an extremely high standard" and may be utilized "with considerable confidence" by historians, it did, nevertheless, alert researchers to the fact that serious errors could occur, particularly where the transcription was based on faint photocopies and heavily annotated returns [Goose, 2001]. Further, the study revealed marginal variations in error rates between individual transcribers.

The recent availability online of the manuscript pages of the enumeration books (at Ancestry.co.uk for England and Wales;

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for Scotland, only transcribed versions of the 1881 census are currently available online) permits comparisons between the transcribed version and the original record to assess the accuracy of the former so far as accountants are concerned. Suspicions that there may be transcription errors in the electronic version of the census were aroused when the current researchers focused attention on female accountants appearing in the transcribed census for 1881. An earlier study of accountants in the transcribed CEBs for three counties of England in 1851 also offered a cautionary note on the subject of female accountants [Walker, 2002]:

It is possible that a number of these instances of female accountants represent transcription errors in *The Resource File* or reflect recording conventions in the census. For example, aged widows entered as 'accountants' may actually be 'annuitants'. In another case 'Acct' may be a corruption of 'Asst' (assistant).

A search of the transcribed version of the British census of 1881 identified 288 cases of female accountant. These were checked to the manuscript version of the enumeration books (except for cases in Scotland, see above). The results of this procedure are summarized in Table 3.

TABLE 3
Female Accountants in the Transcribed British Census, 18819

Female accountants in transcribed census	288
Males recorded as females	(8)
Incorrectly transcribed as accountant, occupation in manuscript CEB:	
Annuitant	(59)
Assistant	(4)
Accoutrement maker	(1)
Certified accountreress (a certified accoucheur)	(1)
Agent	(1)
Servant	(1)
Transcribed as accountant clerk, but accountant's clerk in original	(2)
Wives transcribed as having same occupation as accountant husbands	
but are "wives of"	(12)
Other errors of transmission/in original census	(9)
Adjusted total	190

<sup>&</sup>lt;sup>9</sup>Eleven female accountants in Scotland were checked to the online transcription of the 1881 census (which appears to be the same as that available on CD-ROM) but not to the original manuscript.

While some errors reported in Table 3 appear in the original enumeration books, the majority were made during transcription. The exercise revealed that some handwritten occupational titles in the CEBs bear a very close resemblance to "accountant" and may have confused the transcriber; in particular, accoucheur or accoucheuse (an obstetrician or midwife), accoutrement maker (military clothing), annuitant (persons living on annuities), and assistants (various). Further, a number of women whose occupation was transcribed as "accountant" were actually the "wife of" the accountant who appeared immediately above in the manuscript version of the enumeration book.

The problems identified in the transcription of female accountants, particularly the large number of incorrectly transcribed annuitants, suggested that the reliability of the transcribed census relating to male accountants should be assessed. A random sample of the database population of 8,331 males identified as simply "accountant" in England and Wales and the Islands was therefore checked to the online manuscript version of the census. The sample size was 367 (95% confidence level). No transcription errors were discovered. While this finding offered a degree of assurance, other occupational descriptions relating to accountants from the transcribed census aroused suspicion and were also checked to the manuscript version. Again, a high degree of assurance was achieved. However, as the following instances indicate, a number of errors were discovered. These errors indicate the advisability of referring to the original source when the occupational description excites suspicion or contains references to medicine (because of the potential mistranscription of accoucheur), the military (because of possible confusion with accourtement), retired accountants (annuitants), and unlikely looking assistants.

An example of a transcription error relating to accoucheurs is John Broom of Bristol who is entered in the transcribed census as "Physician (Surgeon & Accountant IK2CPS)." In the original manuscript, he is "Physician, Surgeon + Accoucheur LR2CPS." In relation to accoutrement makers, John R. Venall, Edmonton, Middlesex, is "Military Accountant Clerk (Helmets &c)" in the transcription, but in the original he appears as "Military Accoutrement Maker (Helmets &c)." John E. Howells, Birmingham is likewise "Military Ornament Stamper (Accountant Unemployed)" in the transcript, but "(Accoutrement) Military Ornament Stamper (Unemployed)" in the manuscript. John Greaves, Birmingham, is "Military Stamper (Accountant o)" in the transcription, but "(Accoutrement) Military Stamper" in the

manuscript. John Albert, London, is identified in the transcript as "Army Accoun Mist Work," but is "Army Acoutrement Maker" in the original. Alfred J. Miller, Bermondsey, is "Army Accountant (Cutter)5" in the transcribed version, but "Army Acoutrement Cutter (Accoutrement)" in the original.

In relation to annuitants, Thomas Huard, Bermondsey, is entered in the transcription as an "Accountant Retired KM Engineer (Navy Off)," but in the original is an "Annuitant Retired RN Engineer (Navy Officer)." Thos Ryder, aged 78 of Cinderford, Gloucestershire, "Accountant," is an "Annuitant" in the original. In relation to assistants, Henry King, St. Pancras, appears in the transcribed census as a dentist's accountant but is a dentist's assistant in the original. In Yorkshire, Edwin F. Melton is entered as a grocer's accountant and Thomas W. Hirst an accountant at a woolen mill. Both are assistants in the manuscript census. Henry Pascoe, aged 16 of Wolborough, Devon, is recorded as a painter's accountant in the transcription, but he is clearly a painter's assistant in the original. Wm. Dyer, St Pancras, is a corn dealer assistant in the original as opposed to corn dealer accountant, and Thomas Lanagan of Hackney is a druggist assistant rather than druggist accountant.

By the same token, it is possible that a small number of those transcribed as accoucheurs, accourrement makers, annuitants, and assistants were actually accountants. However, the more familiar usage of the occupation "accountant" compared to the others (except assistant) is likely to have lessened the scope for errors of this type by modern-day transcribers.

Where uncharacteristic occupational descriptions appear in the transcribed census, it is advisable to consult the original. For example, the stated occupation of Benjamin Room of Brighton in the transcribed census is "Public Audition Accountant." On examining the manuscript census, this odd-sounding occupation was revealed to be "Public Auditor (Accountant)." Some transcription errors result from illegible entries in the original census. Other pages are very faint, contain occupational strings which are congested in the available space of the pro forma, or are rendered confusing by marks added during the enumeration process. The latter were often made by census clerks using colored pencils, which are less distinguishable when reproduced in the monochrome microfilmed images of the originals used in transcription. For example, William Watson of Barnsley appears from the manuscript version as "Secretary West Riding Permanent Relief Fund." But this is incorrectly transcribed as "Secretary Permanent Relief Fund West Riding (Colliery Accountant)." Similarly, John Pile of Plymouth, aged 58, is transcribed as "Student Accountant to Owner of Land & Houses (House Agent)," but he was actually a "Steward, Accountant and House Agent."

In a small number of cases, information relating to variables other than occupation was incorrectly transcribed (e.g., age). The eldest accountant in the transcribed census was John W. Warland of London aged 96. In the manuscript version of the census, his age is stated as 56. It is prudent to be alert to inconsistencies in the information provided about an individual, such as a six-year old accountant whose marital status is entered as widower or a bank accountant aged five years. It is also possible that certain individuals were recorded twice during the enumeration process. John Adamson, "Accountant. FCA," aged 52, born in Derbyshire and resident with his family in Heaton Norris, Lancashire, is almost certainly the same John Adamson entered as a resident in the Salisbury Hotel, London, "Accountant FCA," aged 52 and born in Derbyshire.

The findings relating to female accountants reported above suggest the advisability of checking individuals who are entered in the transcribed census as "accountant clerk." These may be accountant's clerk in the original manuscript. It is important to note that some punctuation was not reproduced in the transcript version of the census and can also be frustratingly absent in the original. This is significant to the interpretation of occupational descriptions. An "accountant clerk" may be an individual performing the dual functions of accountant and clerk, an accountant who is described as a clerk, or a clerk to an accountant. The addition of an apostrophe, as in "accountant's clerk" more definitively locates the individual as the latter and as an employee. During the late 19th century, some apprentice accountants and even recently qualified professional accountants referred to themselves in the census as clerks. Hence a "Chartered Accountant's Clerk" may be a clerk to a chartered accountant or an apprentice. Also, the placement of annotations such as "clk" in the original census may be located differently in the transcription, affecting the interpretation of the individual's occupation.

Other ambiguities arising from lack of punctuation or insufficient detail in the original or transcribed versions of the enumeration books become clear from the following questions. Is an individual entered as an "accountant auctioneer" an accountant *and* auctioneer or accountant *to* an auctioneer? Is a "clerk colliery accountant" a clerk and colliery accountant or

clerk to a colliery accountant? Is a "Mine Agent & Accountant" a mine agent and also an accountant or, more likely, an agent and accountant at a mine? Similarly, is an "accountant commission merchant & estate agent" an accountant, commission merchant, and an estate agent, or an accountant to a commission merchant and estate agent, or an accountant to a commission merchant and also an estate agent? Is an "accountant agent publisher" really an accountant, agent, and publisher or an accountant and agent to a publisher? Is an "Innkeeper and accountant" the keeper of an inn and the accountant at the inn or an innkeeper who also practices as an accountant?

In addition to the large number of individuals whose occupation is simply entered as "accountant," other descriptions in the transcribed or original version of the census can be frustratingly ambiguous. For example, is "Accountant and Secretary" an accountant and secretary to an organization or to a private person? Abbreviations also add complexity. Is a "Solicitor (Acct)" a solicitor and accountant or a solicitor practicing on his own account? Is "Bank Account," a bank accountant or someone living off banked income? There are a few examples in the transcribed census where the occupation is entered as "account" but is stated as "accountant" in the original. Often the abbreviation "account" used in the transcription is confirmed as referring to accountant in the original by the addition of a superscript, "account."

It appears to be the case that when the simple occupational description of "accountant" is applied to males, is not congested within the space provided in the enumeration book, is not heavily annotated, and is not uncharacteristically attended by military and medical references, the transcribed census is reliable. Where occupational descriptions contained in the transcription are fuller, more complex, and concern female accountants, it is advisable to check against the original version.

#### CONCLUSIONS

As numerous commentators attest, "The census of population is a key source for any study of 19th century England" [Lawton, 1978, p. 1]. The published occupational tables and individual-level sources on which the census abstracts were based are of particular importance to students of the emergent profession of accountant. These sources provide exceptionally rich data which may be employed to gain unparalleled decennial snapshots of the composition of the occupation, those who

pursued it and their placement in the social structure. As more censuses become accessible via electronic media, opportunities will be provided to plot the complexion and progress of the occupation of accountant over time and in different places.

However, it is also clear that the census should not be used uncritically. Source criticism is, of course, an essential component of any historical research project but is especially significant in relation to the census. It is important to comprehend why, how, and in what context the manuscript enumeration books and published census tables were originally created. It is also prudent to be aware of the practicalities of conducting the census, how errors may have crept into the original source and in subsequently transcribed versions. The accounting historian's interpretation of census data, both at the level of the individual subject and abstraction, is substantially enhanced by an awareness of shifts in contemporary understandings of the meaning of particular occupational titles, the socio-economic structures of local communities in which accountants resided, and, in the case of biographical studies, detailed knowledge about the subject's life course.

The paper has illustrated the issues surrounding the use of occupational data contained in the published reports of the 1881 census. The census reported 12,792 accountants in Britain. A search of the transcribed enumeration books identified 16,180 who used that occupational title on its own or in combination with other vocations. It has been shown that this substantial difference arose from the application of rules relating to the counting of the occupation in instructions issued to those administering the census, particularly abstracting clerks. The instructions also offered scope for the exercise of judgment. Annotations to the original CEBs suggest some departures from the instructions issued and inconsistencies in the ways in which accountants were classified. These findings indicate that the numbers of accountants counted in the published census represent a serious underreporting of those engaged in the occupation in 1881, and, in consequence, a distorted view of the occupational landscape. Analyses of the data reported in published censuses are also problematical when used longitudinally due to intercensal changes in occupational classifications. The structure and content of published occupational tables and the classification of particular trades and professions reflect contemporary ideals and the potentially changing objectives of census-takers.

Problems surrounding the census reporting of occupational totals and the classification of occupations ensure that returning

to the original enumeration books is desirable [Armstrong, 1978; Bellamy, 1978]. Moreover, "Working from the enumerators' books offers two great advantages over using census volumes; that the information can be extracted to fit the problem in mind, and that each entry concerns a named individual" [Wrigley, 1972, p. 2]. It should be recalled however, that entries in the CEBs "are multiple recensions of the householders' schedules and may, in many cases [involving multiple occupation], not even reflect the individuals' own interpretation of importance in their occupational entry" [Woollard, 2004, p. 37].

Source evaluation is particularly important when utilizing electronic and transcribed versions of the CEBs due to the additional level of intervention and mediation. Investigations of the transcribed version of the British Census of 1881 suggest a high degree of accuracy. The error rate is "so small as to be entirely insignificant when considering the total Census" [Woollard, 1996, p. 101; Goose, 2001]. However, at micro and meso-levels of analysis, where the focus is on individuals and particular groups, a higher degree of caution should be exercised.

The findings reported above indicate that various sets of individuals identified as accountants in the transcribed census should be checked to the manuscript versions of the enumeration books. First, female accountants may actually appear as annuitants or wives of accountants in the original source. Second, male and female accountants whose occupations contain medical or military references may be mis-transcribed accoucheur, accoucheuse, or accoutrement makers. Third, uncharacteristic combinations of occupations or extended, complex occupational strings may include mis-transcriptions of assistants or contain other errors. Fourth, when accountants are also entered as clerks, punctuation and use of parentheses should be checked to the original to clarify employment status. Fifth, cases should be checked where the individual's age, marital status, or relationship to the head of household is not consistent with the pursuit of the occupation of accountant.

Despite the possibility of encountering errors in the transcribed census and the frustrations which can arise when using images of the original manuscript, it should be reiterated that the census remains a key source for accounting historians. The errors discovered in this study represent a very small percentage of the total population of accountants. As previous studies of the accuracy of the enumeration books have discovered, "a large proportion of the data is entirely unambiguous: page after page, household after household, sometimes in an almost unwelcome

monotony, exhibits not one of the many difficulties described. Even where they do occur, many of the ambiguities and errors are of a trivial nature and easily and confidently emended" [Tillott, 1972, p. 128].

#### REFERENCES

- 1881 British Census and National Index (1999), (Salt Lake City: The Church of Jesus Christ of Latter-Day Saints).
- "1881 British Census Available on CD-Rom," (4.5.1999), http://www.lds.org/news-room/showrelease/0,15503,3881-1-3886-715,00.html. Accessed November 17, 2006.
- Armstrong, W.A. (1972), "The Use of Information about Occupation," in Wrigley, E.A. (ed.), *Nineteenth-Century Society. Essays in the Use of Quantitative Methods for the Study of Social Data* (Cambridge: Cambridge University Press): 191-310.
- Armstrong, W.A. (1978), "The Census Enumerators' Books: A Commentary," in Lawton, R. (ed.), The Census and Social Structure. An Interpretive Guide to Nineteenth Century Censuses for England and Wales (London: Frank Cass): 28-81.
- Banks, J.A. (1978), "The Social Structure of Nineteenth Century England as Seen through the Census," in Lawton, R. (ed.), *The Census and Social Structure. An Interpretive Guide to Nineteenth Century Censuses for England and Wales* (London: Frank Cass): 179-223.
- Bellamy, J.M. (1978), "Occupation Statistics in the Nineteenth Century Censuses," in Lawton, R. (ed.), *The Census and Social Structure. An Interpretive Guide to Nineteenth Century Censuses for England and Wales* (London: Frank Cass): 165-178.
- Carnegie, G.D. and Parker, R.H. (1996), "The Transfer of Accounting Technology to the Southern Hemisphere: The Case of William Butler Yaldwyn," *Accounting, Business & Financial History*, Vol. 6, No. 1: 23-49.
- Carnegie, G.D., Parker, R.H., and Wigg, R. (2000), "The Life and Career of John Spence Ogilvy (1805-71). The First Chartered Accountant to Emigrate to Australia," *Accounting, Business & Financial History*, Vol. 10, No. 3: 371-393.
- Drake, M. (1972), "The Census, 1801-1891," in Wrigley, E.A. (ed.), Nineteenth-Century Society. Essays in the Use of Quantitative Methods for the Study of Social Data (Cambridge: Cambridge University Press): 7-45.
- Edwards, J.R and Walker, S.P. (2007), "Accountants in Late Nineteenth Century Britain: A Spatial, Demographic and Occupational Profile," *Accounting and Business Research*, Vol. 37, No. 1: 63-89.
- Genealogical Society of Utah (1993), "British 1881 Census Project. Transcription Guidelines," (www.data-archive.ac.uk/doc/4177/mrdoc/pdf/method.pdf).
- "General Report" (1883), Census of England and Wales, Volume IV, British Parliamentary Papers, LXXX.
- Goose, N. (2001), "Evaluating the 1881 Census Transcription: A Pilot Survey of Hertfordshire," *History and Computing*, Vol. 13, No. 2: 181-198.
- Higgs, E. (1987), "Women Occupations and Work in the Nineteenth Century," History Workshop Journal, Vol. 23: 59-80.
- Higgs, E. (1990), "Household and Work in the Nineteenth-Century Censuses of England and Wales," *Journal of the Society of Archivists*, Vol. 11, No. 3: 73-77.

- Higgs, E. (1996a), A Clearer Sense of the Census. The Victorian Censuses and Historical Research (London: HMSO).
- Higgs, E. (1996b), "The Tabulation of Occupations in the Nineteenth-Century Census, with Special Reference to Domestic Servants," in Mills, D.R. and Schürer, K. (eds.), Local Communities in the Victorian Census Enumerators' Books (Oxford: Leopard's Head Press): 27-35.
- Jordan, E. (1988), "Female Unemployment in England and Wales 1851-1911: An Examination of the Census Figures for 15-19 Year Olds," *Social History*, Vol. 13, No. 2: 175-190.
- Kedslie, M.J.M. (1990), Firm Foundations. The Development of Professional Accounting in Scotland (Hull: Hull University Press).
- Kirkham, L.M. and Loft, A. (1993), "Gender and the Construction of the Professional Accountant," *Accounting, Organizations and Society*, Vol. 18, No. 6: 507-558.
- Kirkham, L.M. and Loft, A. (1996), "Census Reports and the Construction of the Professional Accountant," paper presented at the Annual Congress of the European Accounting Association, Bergen.
- Lawton, R. (1978), "Introduction," in Lawton, R. (ed.), The Census and Social Structure. An Interpretive Guide to Nineteenth Century Censuses for England and Wales (London: Frank Cass): 1-27.
- Lee, T.A. (ed.) (1996), Shaping the Accountancy Profession. The Story of Three Scottish Pioneers (New York: Garland Publishing, Inc.).
- Lee, T.A. (2002), "The Contribution of Alexander Thomas Niven and John Ballantine Niven to the International History of Modern Public Accountancy," Accounting and Business Research, Vol. 32, No. 2: 79-92.
- Lee, T.A. (2006a), The Development of American Public Accountancy: Scottish Chartered Accountants and the American Public Accountancy Profession (London: Routledge).
- Lee, T.A. (2006b), Seekers of Truth: The Founders of Modern Public Accountancy (London: Elsevier).
- Mills, D. and Mills, J. (1989), "Occupation and Social Stratification Revisited: The Census Enumerators' Books of Victorian Britain," in Rodger, R. (ed.), *Urban History Yearbook* (Leicester: Leicester University Press): 63-77.
- Mills, D.R. and Schürer, K. (1996a), "Communities in the Victorian Censuses," in Mills, D.R. and Schürer, K. (eds.), *Local Communities in the Victorian Census Enumerators' Books* (Oxford: Leopard's Head Press): 1-15.
- Mills, D.R. and Schürer, K. (1996b), "The Enumeration Process," in Mills, D.R. and Schürer, K. (eds.), *Local Communities in the Victorian Census Enumerators' Books* (Oxford: Leopard's Head Press): 16-26.
- Mills, D.R. and Schürer, K. (1996c), "Employment and Occupations," in Mills, D.R. and Schürer, K. (eds.), *Local Communities in the Victorian Census Enumerators' Books* (Oxford: Leopard's Head Press): 136-160.
- Neu, D. (1999), "Discovering' Indigenous Peoples: Accounting and the Machinery of Empire," *Accounting Historians Journal*, Vol. 26, No. 1: 53-82.
- Parker, R.H. (2004), "Accounting on the Periphery: The Profession in Exeter to 1939," *Accounting, Business & Financial History*, Vol. 14, No. 1: 53-89.
- "Report" (1883), Census of the Population of Scotland, Volume II, British Parliamentary Papers, LXXXI.
- RG27/4, "Instructions to the Clerks Employed in Classifying the Occupations and Ages of the People," Census of England 1871, Part B, fol. 85, National Archives, Kew.
- RG27/5, "Forms and Instructions Issued for Taking the Census 1881," National Archives, Kew.

- Roberts, E., Ruggles, S., Dillon, L.Y., Gardarsdóttir, O., Oldervol, J., Thorvaldsen, G., and Woollard, M. (2003a), "The North Atlantic Population Project. An Overview," *Historical Methods*, Vol. 36, No. 2: 80-88.
- Roberts, E., Woollard, M., Ronnander, C., Dillon, L.Y., and Thorvaldsen, G. (2003b), "Occupational Classification in the North Atlantic Population Project," *Historical Methods*, Vol. 36, No. 2: 89-96.
- Schürer, K. and Woollard, M. (2002), SN 4375-National Sample from the 1881 Census of Great Britain, UK Data Archive (www.data-archive.ac.uk/). Accessed October 20, 2005.
- Tillott, P.M. (1972), "Sources of Inaccuracy in the 1851 and 1861 Censuses," in Wrigley, E.A. (ed.), Nineteenth-Century Society. Essays in the Use of Quantitative Methods for the Study of Social Data (Cambridge: Cambridge University Press): 82-133.
- Walker, S.P. (1988), The Society of Accountants in Edinburgh 1854-1914. A Study of Recruitment to a New Profession (New York: Garland Publishing, Inc.).
- Walker, S.P. (2002), "Men of Small Standing?' Locating Accountants in English Society during the Mid-Nineteenth Century," *European Accounting Review*, Vol. 11, No. 2: 377-399.
- Walker, S.P. (2003), "Identifying the Woman Behind the 'Railed-in Desk': the Proto-Feminisation of Bookkeeping in Britain," *Accounting, Auditing & Accountability Journal*, Vol. 16, No. 4: 606-639.
- Woollard, M. (1996), "Creating a Machine-Readable Version of the 1881 Census of England and Wales," in Harvey, C. and Press, J. (eds.), *Databases in Historical Research. Theory, Methods and Applications* (Basingstoke: Macmillan): 98-101.
- Woollard, M. (1997), "Shooting the Nets': A Note on the Reliability of the 1881 Census Enumerators' Books," *Local Populations Studies*, Vol. 59: 54-57.
- Woollard, M. (2004), "The Classification of Multiple Occupational Titles in the 1881 Census of England and Wales," *Local Population Studies*, Vol. 72: 34-49.
- Wrigley, E.A. (1972), "Introduction," in Wrigley, E.A. (ed.), *Nineteenth-Century Society. Essays in the Use of Quantitative Methods for the Study of Social Data* (Cambridge: Cambridge University Press): 1-6.