

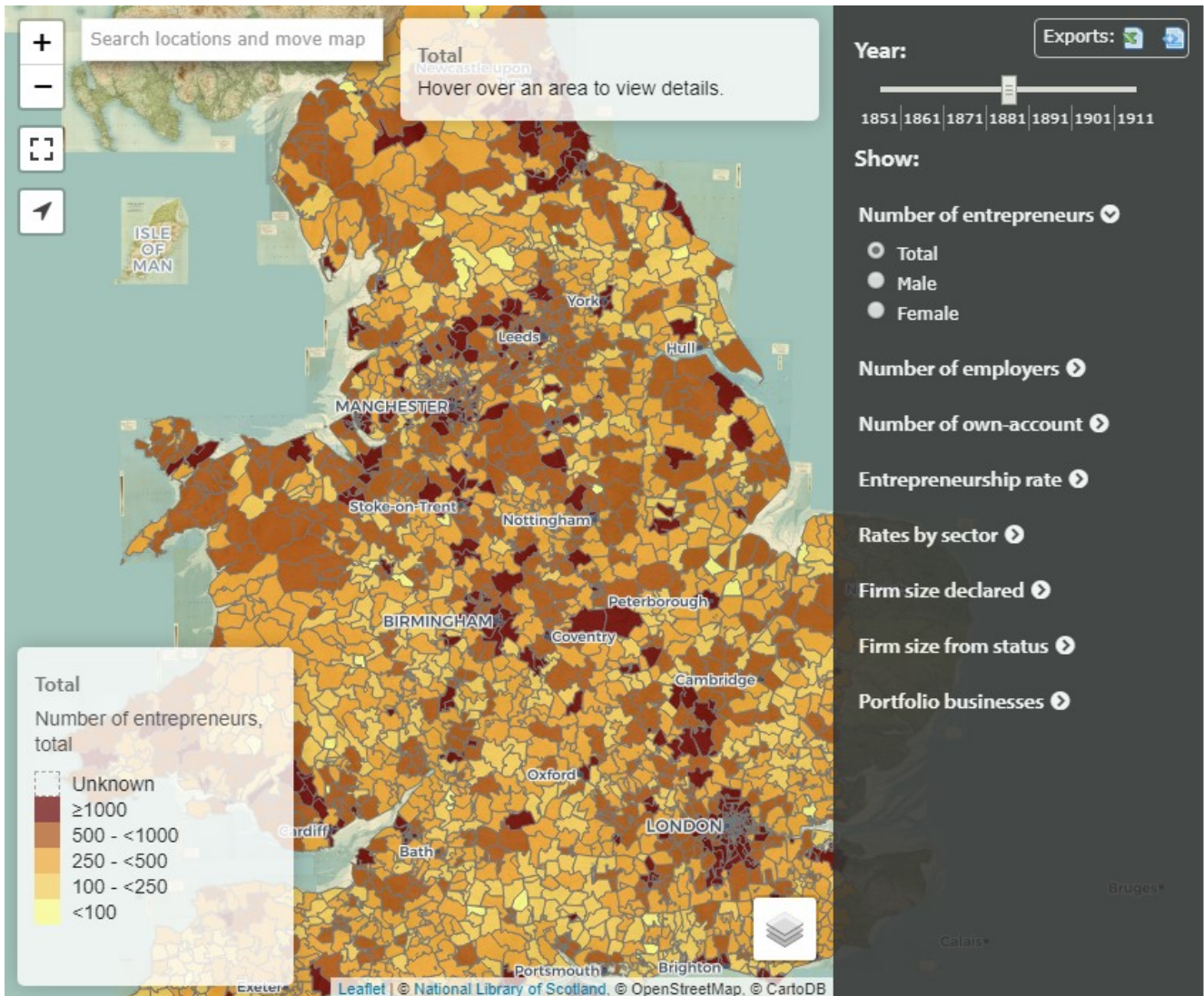
The entrepreneurs from the census - The 19th century Atlas



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A new resource has been launched that gives new insights into the development of entrepreneurship up to the start of the 20th century. It enables Regional Studies researchers, students and schools to look at the geography of entrepreneurs recorded in the censuses of England, Wales and Scotland for 1851-1911. It is available as an online interactive ***Atlas of Entrepreneurship***.



Screen shot of the Atlas - for the total of all entrepreneurs by Census Registration Sub-District (RSD) in 1881

The Atlas offers many possibilities: to view the geographical patterns, learn about the historic developments over the period, and download directly much of the data either as Excel files or GIS files. Entrepreneurs are defined as *all* the self-employed of the period, including those employers in firms and farms who recorded their employee numbers. The raw data was recorded in the censuses by households and enumerators, but very little was published at the time by the census administrators because the clerical task of coding the data without IT support was difficult, and the financial resource given for census administrators was deemed too small.

As a consequence of a few published tables, very little analysis has been previously possible of the historic census records of employers and self-employed. John Clapham, in volumes 2 and 3 of his magisterial *Economic History of Modern*

Britain published in the 1930s, took the few tables that had been published and analysed them. He found them disappointing because of patchy coverage.

Full digital records of the censuses 1851-1911 are now available in I-CeM (the University of Essex's Integrated Census Microdata Project) which has produced a standardised and integrated dataset of the censuses of England and Wales, 1851-1861, 1881-1911 and Scotland, 1851-1901, available at the UK Data Service, [click here](#).

However, I-CeM did not identify and code the self-employed. These have now been extracted, coded and provided in a new database linked to I-CeM: ***The British Business Census of Entrepreneurs (BBCE)*** available at the UK Data Service.

The BBCE database gives the coding of all farm and non-farm entrepreneurs by their employment status. This can then be linked to I-CeM through each individual's identifier (RecID). But BBCE goes beyond I-CeM in several respects: it has most employer data for farmers and non-farmers for 1871 in England and Wales which is missing in I-CeM; it gives additional people lost in the transcriptions that I-CeM relies on, as well as infilling many occupational descriptions that have been truncated; and it enriches I-CeM with a range of other information, including identifying individuals as company directors using record-linkage to directories.

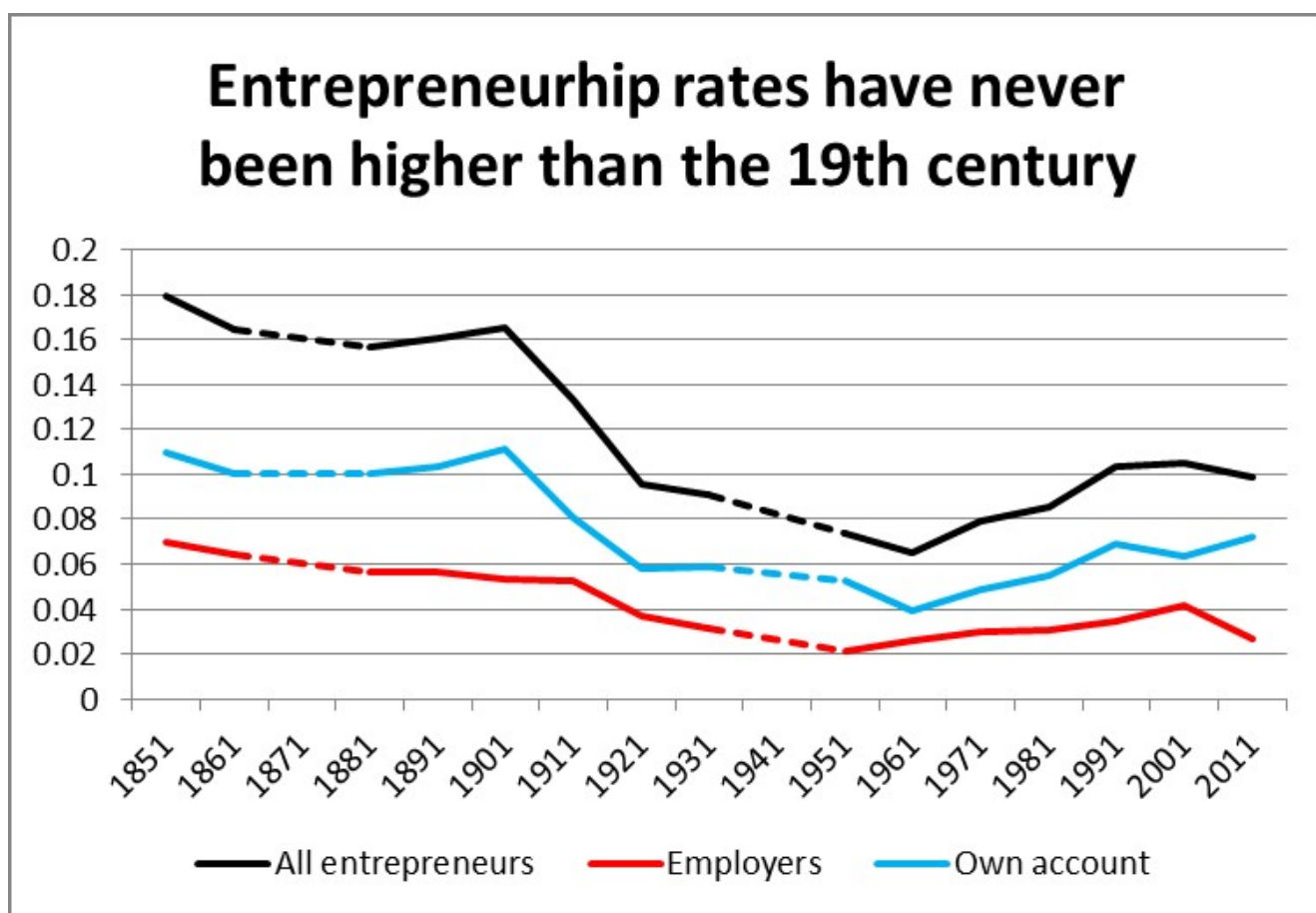
The BBCE has used algorithmic searches and clerical coding to extract all the original enumerators' records that show an employer or self-employed person working on their own (called 'on own account' in the 19th century). These can now be analysed in a way that was impossible for the contemporary census clerks. The data contain such complex records as 'alderman, J.P., cotton miller employing 1,000 worker, 600 women, 200 men 150 girls and 50 boys also farmer of 300 acres with 10 hands.' These long alphanumeric strings have been identified, parsed and coded appropriately. This not only identifies the self-employed but gives the earliest population-wide coverage of firm-size information for Britain. It is unique data on firm size for farms and for every other sector.

This method has been developed by a research team under Prof. Bob Bennett at Cambridge University: Harry Smith, Carry van Lieshout, Piero Montebruno, Gill Newton, and others. The results give 300-400,000 employers per census year, and

1.5 - 2 million self-employed who operated 'on own account' without employees. This database underpins the Atlas, and is available at the UK Data Service as an open access resource.

For Regional Studies researchers it provides new benchmark data for the past that can be joined up with modern census and other data. This can be used to investigate persistence and other continuities or changes over time: by place, by social and economic group, gender, household status, and many other dimensions.

Any researcher wanting the data for individuals must still go to the full BBCE data deposit, and for the names of individuals must go to I-CeM to access (which is restricted under licence). But for aggregated data by Registration Sub-District (RSD), counties, regions, towns and urban areas, the **Atlas** and **BBCE website** provide the data as direct downloads. This can be done directly from a given screen such as that shown in the screen shot. This should be very valuable for inspecting the basic data to help frame research projects, and for student coursework activities.



The BBCE and Atlas data aligned and continued to the modern census

A further key benefit is that the design of the BBCE and Atlas coding uses modern approaches to post-survey processing of the historical censuses. This imposes a quality standard that historical clerks could not meet, and adjustment methods UK census administrators had not developed until the 1960s. This has allowed the data to be aligned over time so that consistent comparisons are possible up to the present day. The figure shows employers and own account in BBCE as a proportion of the working population. The development up to the 2011 census shows the Victorians to have had a higher rate of self-employment than any time since, with a critical downturn in self-employment and entrepreneurship setting in after 1901, to evolve as the well-known 'U'-shaped pattern of the 20th century. It also turns out that Victorian entrepreneurship was particularly high for women, especially married women - one of many new findings that re-write much previously literature. Entrepreneurship by sex is available on the Atlas site, which also allows inspection of the spatial patterns.

The Atlas is a development of the software from Alice Reid's.

The main research findings have been published in: Bennett, R.J., Smith, H., van Lieshout, C., Montebruno, P., Newton, G. (2019) *The Age of Entrepreneurship: Business proprietors, self-employment and corporations since 1851*. Routledge International Studies in Business History, London and New York. For other publications [click here](#).