Book Review

Census and Sensitivity, by Ian Stuart White*

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If you didn't know already, there is a census this year. The history of censuses in the British Isles is long and complex. For most, the census is something that comes along once a decade and involves filling in a detailed form cataloguing who is living in a household, with a number of other questions tacked on. For the statistical community, the census is a far more sophisticated exercise: it is a decennial benchmarking of the nation's population, permitting the derivation of annual population estimates at several levels of geographical aggregation and the cross-tabulation of a wide range of obtained variables. Users of census data range from central government departments through local authorities to private sector organisations, academics, and, in the case of past censuses, individuals keen to trace their family ancestries. In the current era there is also a range of mandatory statistical obligations to the international community. Within England and Wales, the responsibility for conducting the decennial census falls to the Office for National Statistics (ONS); the devolved administrations perform similar functions in Northern Ireland and Scotland.

A key purpose of the census is to provide accurate data on the number of people in different administrative units so that appropriate per capita allocation of funds from central to local government and other agencies can take place. There are complex discussions with interested parties in the planning of censuses, and careful heed is taken of the requirements of users. Recent British censuses have evolved gently over the decades rather than been subject to radical or revolutionary changes; refinement, data continuity and accuracy have been the hallmarks of successive census teams.

Within ONS, the Census division contains a number of very experienced personnel whose histories and expertise stretch back to the 2001 and 1991 censuses, and, in a few cases, even further. Ian White is exceptional within ONS in that his direct experience of decennial censuses stretches back as far as the 1970s. Additionally, he cut his demographic teeth alongside experienced colleagues who had worked for the OPCS (Office for Population Censuses and Surveys) on even earlier censuses. Accordingly, his knowledge and understanding of the history and development of censuses is both exhaustive and unique.

Censuses go way back into pre-history and were originally motivated by the need for governments to tax populations, and sometimes to conscript them. It is noteworthy that a range of ancient civilisations in different regions of the globe arrived separately at some type of census instrument. However, White notes that, as so often, it was the Romans, with their iron discipline and able administrative structures, who took this process much further than anyone before them. The so-called Dark Ages that followed Roman decline were not marked by any systematic population enumeration across Europe, but the emergence of nation states in early medieval Europe with a measure of central government slowly changed things. In England, the Norman conquest of 1066 imposed a foreign elite on a larger Anglo-Saxon population; King William commissioned the 1086 Domesday Book to record the resources of his new kingdom, primarily so that he could utilise those resources effectively in the event of external challenge to his authority. It was not a 'census' in the modern sense, but it did encourage subsequent estimates of the population of England for the late 11th century, indicating a kingdom then not exceeding two million people.

England's population grew over the next three centuries despite internal disputes and external threats, but the catastrophic arrival of Black Death to Europe from Mongolia in 1347 reduced the population by a third within a half decade. Population surveys and poll tax returns occasionally punctuated the medieval English landscape, but not until the introduction of parish registers by Thomas Cromwell in 1538 was there a rudimentary system of vital registration. Bills of Mortality in the 17th century compiled by John Graunt, and the intellectual vigour of his friend Sir William Petty, stimulated an interest in population estimation and measures of demographic growth, but it was not until the second half of the 18th century that parliamentary legislation was first proposed to conduct a national census. However, this was rejected by Parliament on grounds of superstition and suspicion. It is perhaps no accident that this coincided with a period of strong economic and political growth, effective central government, external expansion, and protracted confrontation with rival European powers. But, most important of all, were the intellectual debates raging in the second half of the 18th century in Great Britain and across Europe regarding population growth; this was not merely a discourse on the work of Thomas Malthus, but a far wider discussion of the relationship between population and the resources required to sustain that population.

Accordingly, and with the catalyst of a prolonged and expensive war with Napoleonic France, White explains how the 1800 Census Bill nurtured the first national Census of Great Britain the following year. That enumeration, and the subsequent censuses of 1811, 1821 and 1831, were conducted at parish and township levels and were quite basic measures of population numbers and broad occupational categories. The leadership of John Rickman was paramount to this innovation.

The 1830s marked a time of speedy economic and political change in Great Britain underpinned by technical advances on the land and in the growing cities. The Third Reform Bill of 1832 increased the electorate's size radically, leading indirectly to a more sophisticated census process from 1841 onwards, conducted by the new General Register Office (GRO) under its first Registrar General, Thomas Lister. The 1841 enumeration employed new geographical units called registration districts, sub-divided into enumeration districts (EDs), and featured the data for each enumeration district being transcribed by the local enumerator into his enumerator's book. This set the scene (and standard) for subsequent Victorian censuses, though the 1851 Census is generally regarded as the first 'modern' census. The 1851 enumeration employed William Farr's new occupational classification, which remained in use (with some revisions) until 1921. White notes that Farr

‘ensured that the (census) did not die in its infancy’ and was ‘the 19th century’s most pre-eminent social demographer and epidemiologist’. White’s fascinating detour to catalogue Farr’s contribution to the debate on cholera in the 1840s and 1850s is a digression but provides a pertinent backdrop to the era.

Consolidation marked the censuses of 1871–1901, with increased difficulties by 1901 of physically counting the profusion of data as the population grew and the number of tabulations proliferated. This led in 1911 to the introduction of punched cards and machine tabulation using imported American technology. While these innovations were important, White suggests that the 1911 Census was far more interesting for two other reasons: the first was the national survey of fertility that accompanied the census, while the other was the threatened boycott of the census by the Suffragette movement led by Emmeline Pankhurst. Exactly a century ago, the 1911 Census was marked by political disturbances in the streets around Westminster and a government trying to survive with a frail majority.

The First World War was a political and social watershed across Europe; by 1920, and following much discussion, there was a permanent Census department established within the GRO. There was great concern to understand the patterns of demographic and social change after the Great War, especially in view of the enormous losses in that conflict and the effects of these on the surviving population. The key development of the 1921 Census was the further refinement and revision of the occupational classification into social classes by THC Stephenson. These remain familiar to us today. The 1921 Census, like the war that preceded it, marked a watershed in White’s story.

A decade later the 1931 Census was very similar, though one significant change was the introduction of a question on usual residence. This enabled counts of usual residents, whether or not they were present at the time of enumeration (the *de jure* population), to be produced that would be closer to the definition of the population base used for mid-year estimates than the persons present (*de facto*) base traditionally adopted. This issue rather pre-empted deliberations much later in the century that led eventually to a change of enumeration base. The 1941 Census fell victim to the Second World War, but the 1951 enumeration followed the pattern of 1921 and 1931, with new questions added, perhaps in the mood of those reformist post-war times, to assess levels of household amenities.

In the United States technical innovations in the 1950s had led to the use of computer technology by the Census Bureau in that decade. In 1957 a decision was taken to follow suit and utilise a computer in the 1961 UK censuses. The list of questions included in 1961 was greater than that of 1951, but the use of field sampling meant that 9 out of 10 households were only required to fill in a short questionnaire. However, the unlucky tenth household received a long form covering the same topics as in 1951, with new questions on qualifications, length of stay at usual address and tenure of accommodation. For the first time, extensive media publicity accompanied the census.

The same decade saw the only mid-term census yet to take place in the UK, when a 10 per cent enumeration of all households was conducted in 1966 in Great Britain (though this was 100 per cent in Northern Ireland). This was seen as necessary in light of a perceived rapid change in socio-demographic profile in that decade, characterised by greater migration, mobility and changed

employment methods. However, a planned mid-term census in 1976 was cancelled for budgetary reasons, and since then the once-in-a-decade approach has been the norm.

By 1971 the GRO had become the OPCS and the census form had become even longer. However, the run up to Census Day was marked, White rather sardonically notes, by a campaign by the then Liberal Party leader, Jeremy Thorpe, against the census on grounds of overt intrusion into people's lives. Thorpe eventually backtracked and the census proceeded without apparent damage, possibly bolstered by the additional publicity. A question on parents' country of birth was included as a proxy for ethnic origin, though there was no investigation of nationality or citizenship. More detailed questioning on educational qualifications and occupation a year before the census were included to provide data on occupational mobility and for higher education planning. A technical innovation, however, was the first use by enumerators of Ordnance Survey maps of their EDs and the assigning of national grid references to every building.

The decade after 1971 saw a series of field tests conducted in local areas, in which questions were tested, including, in 1979, an ethnic question. In the following year's White Paper on the census, however, the new Thatcher government decided to omit the ethnic group question. There was bitter debate in Parliament on this issue. The 1981 Census has been cited as one of the most successful since 1945 (mainly, says White, by those who ran it), but one issue that reared its head was that of under-enumeration, with a recognition that this had not only to be reported, but also rectified, using a coverage check.

This leads on to 'recent times', censuses from 1991 to 2011. Tests by OPCS in the mid-1980s on an ethnicity question led to this topic being included in 1991. It was not without controversy. Questions on limiting long-term illness, central heating and hours worked were also included. The UK Registrars General even employed an advertising agency to heighten public awareness and nurture response rates; despite this, 1991 saw a non-response rate of around 2.2 per cent across Great Britain, the highest thus far. It was therefore the role of the 2001 Census to better address the issue of under-coverage and make adjustments for it.

The bicentennial census of 2001 was conducted in England and Wales for the first time by the new ONS. Essentially evolutionary, White suggests that it 'demonstrated the tension between the need to improve and innovate, in order to respond to changing circumstances, and the risks that relatively untried technologies and methodologies present'. A key change was the introduction of post-back as the primary means of collecting forms from households, so reducing the field force needed to conduct the census. A problem was a widespread outbreak of foot and mouth disease across the UK which nearly disrupted the census operation.

Outsourcing of a range of activities was used for the first time in 2001, including the introduction of data capture and coding systems pioneered in the US Census. One issue was delayed payment of field force staff in England and Wales. Another was that a public helpline service was overwhelmed following Census Day.

The 1991 undercount was an issue that the 2001 Census sought to address by means of a post-enumeration survey. Census users had said that they wanted a single definitive set of figures from the census. Accordingly, the One Number Census (ONC) was developed to integrate the 2001 Census counts with the estimated level of under-enumeration in the Census so that the Census

database was adjusted to ensure that statistics would add to 'One Number', the national estimate of the population. The key to this was to compare the census with another large survey, the Census Coverage Survey (CCS). The One Number Census was largely successful in adjusting for under-enumeration, but the design was unable to cope with 'severe pockets of problems' in a small number of areas such as Manchester and Westminster. Overall, there was an undercount of six per cent, highest in the population of young adult males. There was an overall discrepancy of 1.1 million between census estimates and mid-year estimates based on rolling forward the 1991 Census counts, leading some local authorities to express lack of confidence in the ONC results. Overall, however, both the Statistics Commission and Local Government Association published reviews concluding that the methodology used was the best available and, barring some inner city areas, produced robust local estimates.

And thus to 2011. The old tension between ensuring historical data continuity and moving with the times remains as acute as ever. New questions about second residence and reasons for staying at such an address are included; so too is a citizenship question. The definition of a household has been modified to remove archaic terminology. The CCS has been further developed. Marital status categories have been expanded to include civil partnership. Not only will there be post-back, but there will be post-out too (in most areas). It will be possible to fill in the questionnaire online as an alternative to posting it back – and so on. We will see how it goes.....

It's been a long road. This volume is timed intentionally to coincide with the 2011 censuses being held across the UK. It is not a detailed technical handbook of variables included in successive censuses, and so is very far from being an anorak's guide to what can (or cannot) be obtained from each census. Rather, it places the history and development of censuses in these islands in a careful historical and political context, teasing out some of the underlying reasons why things happened in particular ways, and in some cases why they didn't. Technological changes are noted, but the volume is not overawed by them; rather it is contemporary discussion and ideas that are seen as the prime movers. Individuals also assume important parts as leaders and innovators, and are generously acknowledged. It is also fascinating to see censuses not in isolation (as those closely involved with statistics often do) but rather as part and parcel of what was happening more broadly in our society at particular moments. The volume will appeal to a range of readers from a variety of backgrounds: politicians and administrators, historians, academics (and their undergraduate and postgraduate students) and, above all, ordinary people who find the history of the collection of statistics and information about the population, and their ancestors, fascinating.

*To be published through Palgrave Macmillan later this year.