

Caution – Census Data Being Used: exploring and understanding errors and falsification in the Irish census

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The importance of the Census of Population to those working in geography and related areas such as public health, sociology and economics should not be underestimated. However, unlike many other countries, in Ireland census data and the census process have not been the subject of routine critical scrutiny. This paper outlines potential difficulties in the census process that have been identified in Ireland and abroad before examining the issue of falsification in census returns. An opportunistic sample of 140 undergraduate students was invited to comment anonymously on the accuracy of their responses in the last census. Although five declined and 21 reported that they had not taken part in completing the census, 50 out of the remaining 114 respondents indicated that they had told an ‘untruth’. Thematic analysis of the results identified five relatively distinct themes pertaining to ‘inaccuracies’ in census responses. These were: resistance; status enhancement; minimal engagement strategies; welfare/tax concerns; and religion. Further investigation is suggested, as is the introduction of a Post-Enumeration Survey (PES).

Key Words: Ireland; census errors; accuracy; falsification

Introduction

The government are very keen on amassing statistics. They collect them, add them, raise them to the nth power, take the cube root and prepare wonderful diagrams. But you must never forget that every one of these figures comes in the first instance from the village watchman, who just puts down what he damn pleases.

- Anonymous English Judge, Quoted by Sir Josiah Stamp in ‘Some Economic Factors in Modern Life’ (1929: 8)

Ireland is notable internationally for having helped to pioneer the modern census, with the first Irish census of population having been conducted in 1813. The Irish

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census of 1851, for example, is an impressive and comprehensive document even by modern standards (Crawford 2003). Since independence, a census of population has been conducted in Ireland in the following years: 1926, 1936, 1946, 1951, 1956, 1961, 1966, 1971, 1979, 1981, 1991, 1996, 2002, 2006 and 2011. There are two notable disruptions in this emerging pattern: 1979 and 2002. The census in 1976 was delayed until 1979 as an economy measure, while the 2001 census was delayed until 2002 because of the Foot and Mouth disease outbreak at the time (CSO 2009, National Archives of Ireland 2011).

Ireland still continues to invest more heavily than many other countries in the census process, in recent times completing a census every five years, rather than every decade as required by EU regulations (European Parliament and Council of the European Union 2008), and as is the practice of its nearest neighbour, Britain. Recent debate around the census in the UK has largely been focused on the costs versus the benefits of the procedure, as well as an examination of how 'equivalent' data might be captured, if possible through routine information systems (Dorling 2013). By contrast there has been no such widespread debate around the costs versus the benefits of the census in the Republic of Ireland.

There have been recent improvements in access to census data and in the spatial detail available in Ireland. It is now possible to access a 1% sample of anonymised individual data (CSO undated a), and rather than largely being restricted to Enumeration District, which can vary dramatically in both size and population count, census data is also now appearing at the small area unit level (CSO 2013).

Given these developments, it would be all too easy to assume that there were no significant issues associated with the Irish census. An examination of the literature would largely appear to support these conclusions, as by and large criticism of the Irish census appears to be absent. However, this may simply be the result of a lack of critical examination of the census process and products.

Controversy and the Irish census: a squall in a teacup

The level of debate and critical examination of the census in Ireland in recent years has been remarkably minimal. Although, historically, incidents of dissent and falsification have been noted or at least alleged, such concerns in recent times in Ireland appear to be an anomaly (Hansard 1871, Liddington and Crawford 2011). A small academic literature can be identified critiquing the census in Ireland since the turn of the twenty-first century. However, this has tended to focus on the inclusion, or exclusion, of certain questions or populations, rather than considering issues of quality (Houghton 2001a; 2001b; 2004; 2009; Houghton and Houghton 2012). For example a comprehensive search for critical examinations of the 2006 census yielded only minor critical comments, including concerns over how the number of tenants in the private rented sector was counted. Instead of an anticipated figure of less than 20,000 housing association tenancies being identified, a figure of over 50,000 was recorded in the census (Cornerstone 2007a, 2007b). However, commentators noted that the housing tenure question was so poorly worded that identifying the extent of the private rented sector was 'a bit

like trying to find out how many people live in Leinster by asking them whether they live in Connacht, Munster or Ulster' (Cornerstone 2007a, p.4). The same magazine summarised the 2006 census by stating that the results contained 'lots of interesting stuff (and, frankly, a fair bit of data that is of little or no value to anyone)' (Cornerstone 2007b, p.5).

Although few formal critiques of the census can be found in the academic literature, the same is not true of Irish social media where opposition to the 2011 census was evident (Cúlar 2011, Multistory 2011). Similar to the situation in Scotland (Briggs 2011), concerns emerged in Ireland over the allegations that the parent company of CACI, the company contracted to gather census information, had been associated with the torture of prisoners at Iraq's Abu Ghraib prison (Boyd Barrett 2011). A statement addressing the involvement of CACI was subsequently issued by the CSO to reassure the Irish public, which appeared to largely contain the issue (CSO 2011a). However, the space and opportunity presented by these discussions of the census on social media websites facilitated a small, but critical discussion of data quality issues that was largely absent in the Irish academic literature. For example, one participant on a social media site (presumably enrolled under a pseudonym) posted the question and observation:

'Census...do you tell the truth?
Might sound like a daft question, but a few people I have spoken to said they make up answers, or lie on some of the questions.
One girl said her Mum puts her brother down as living in Ireland even though he was living abroad in the last census, and that she will do the same this time. How valid is it, if enough people are lying?'
(Paddy Samurai' 2011)

Although this issue was also lightly explored by media in Ireland, it remained off the academic agenda (*Irish Times* 2011). The largely uncritical acceptance of census procedures, data, and quality in academic circles in Ireland is in stark contrast to debates that have raged in other countries.

Problems with the Census: An international perspective

Skerry (1999, p.18) refers to the census as 'one of the oldest and most basic government functions'. However, this does not mean that it is no longer an area of dispute. Particular attention has been drawn to difficulties in measuring race and ethnicity on the census, as well as issues with over-counting and under-counting various demographic populations (Bell 1996). Interestingly, the census has variously been identified as both under-enumerating and over-enumerating the same ethnic groups (Harris 1994, Skerry 1999). It is generally acknowledged that the census tends to under-report highly transient groups such as migrant workers, students, the homeless, and ethnic groups with a nomadic lifestyle. Equally, illegal immigrants, as well as those politically opposed to the census, will resist enumeration. Routine problems historically identified in censuses

also include issues such as ‘re-enumerations, protracted enumeration periods, lengthy questionnaires, poor questionnaire design, nepotism’ (Rosenthal 2000, p.197). Benjamin (1955) notes particular difficulties concerning census questions associated with age, occupation, the enumeration of infants and usual residence.

Unlike Ireland where there appears to be little general discussion of the quality of census data, Rosenthal (2000, p.195) notes that from the very first census of the newly independent USA in 1780 ‘a precedent was established for the critical review of every census’. This is not surprising as the political nature of early censuses in the USA was perhaps clearer than is often perceived now. Attempts to code and profile groups reflect underlying discourses and hegemonic ideologies. For example, looking at the first US census, it was decided that taxes would be calculated by ‘adding to the whole Number of free Persons, including those bound to Service for a Term of Years, and excluding Indians not taxed, three-fifths of all other Persons’ (see Rosenthal 2000, p.194). The first US census of 1790 included only six questions, providing the name of the head of household and for each household ‘a tally of free White males 16 years and older, free White males under 16 years, free White females, all other free persons, and slaves’ (Rosenthal 2000, p.194). The 1800 census included increasingly detailed age differentiation for ‘Whites’, while by 1820 the ‘colored’ population was included in the age tallies, followed in 1860 by ‘Indians taxed’ and in 1890 by ‘Indians not taxed’ (Rosenthal 2000, pp.196-7).

Given the link between federal funding in the USA and census counts, an ongoing critical debate about census quality issues is not surprising (Anderson and Fienberg 1999, Rivers 1977, Walashek and Swanson 2006). As Rosenthal (2000, p.193) notes: ‘After the 1990 census, an undercount of less than 2% generated wide debate and 22 lawsuits’. More recently, it was noted that problems in the US census resulting from the ‘misapplication of a newer generation of disclosure-avoidance procedures’ resulted in significant errors in those aged 65 and over (Alexander *et al.* 2010, p.551).

It is notable that in relation to the 1950 US census a critical review of the process and aims stated that ‘from the standpoint of sheer size, it is inconceivable that such a census would be free from errors’ (Hansen *et al.* 1953, p.416). A similar statement is evident from roughly the same period in the UK in response to concerns over quality issues in the 1951 census ‘it is ... too much to expect that thirteen million householders will complete their schedules with uniform clarity and accuracy’ (Benjamin 1955, p.288). Benjamin (1955) went on to describe issues associated with incorrect age, the under-enumeration of infants, status inflation, the enumerating students and difficulties estimating fertility among a host of other issues.

Interestingly, some countries have witnessed a decline in opposition to the census in recent years. Close to home, for example, opposition to the census was particularly evident in Northern Ireland in both 1971 and 1981, leading to only partial coverage in Nationalist areas (Cunningham and Gregory 2012). In 1971, internment was still a highly politicised issue there, while in 1981 the hunger

strikes were equally emotive. For example, Joanna Mathers, a census worker, was shot and killed by Republican paramilitaries while collecting census forms in Gobnascale in Derry/Londonderry on 7th April 1981 (CAIN, no date). Although there was some controversy in connection with the UK 2011 census in the context of the war in Iraq, it proved to be relatively minor. The 'Stop the War' coalition objected to Lockheed Martin winning a £150 million census contract in the UK because the company also manufactures 'Trident nuclear missiles, cluster bombs and F-16 fighter jets' (Sharrock and Doward 2011).

Similarly the recent German 2011 census met with significantly less opposition than its predecessor which was held almost 25 years earlier in 1987. Opposition to the census in Germany in the 1980s had revolved around issues of welfare planning, privacy and right-wing concerns about law and order (*Der Spiegel* 2011). However, opposition to the 1987 census collapsed. Braunthal (1990, p.171) states that 'In 1987, the census was taken as scheduled, after a costly propaganda campaign by government. Although many leaders of the Greens called for a boycott, it fizzled because of popular fear of supporting an illegal action, police harassment of census opponents (e.g. by confiscating their flyers), media rejection of paid advertisements supporting the boycott, and the threat of heavy fines for those refusing to fill out the questionnaire'.

Perhaps the most high profile and widespread controversy, or 'thread of protest' as Cusack (2010, p.3) describes it, concerning census responses internationally in recent years may be seen in what might be termed the Jedi Knight phenomenon. Jediism is what Cusack (2010) provocatively terms an 'invented religion' based on George Lucas' *Star Wars* film trilogies. In the period leading up to the census in 2001, an international email campaign emerged in Anglophone countries to persuade people to respond to the standard religion question on the census by stating that they were a Jedi Knight. As Cusack (2010, p.124) notes 'the proximate cause of Jediism being established as a religion was the 2001 census that took place in Australia (7 August), New Zealand (6 March), Canada (15 May) and the United Kingdom (29 April)'. In 2001, some 390,127 people in England and Wales reported that they belonged to the Jedi Knight religion (Lewis 2004), while adding in responses from Scotland brings the total to 405,179 (Cusack 2010). In Australia, 70,509 people stated that they were a Jedi, with approximately 53,000 giving a similar response in New Zealand, representing 1.5 percent of the population (Cusack, 2010). In Canada, the figure was lower at approximately 20,000. Although remarkably little research has been conducted on this phenomenon, this issue has received some attention in academic circles (Possamai 2002, 2003, Cusack 2010). Quoting the Australian *Star Wars* Appreciation Society, Possamai (2003: 74) states that 'about 5,000 people would be true hard-core people that would believe the Jedi religion... 50,000 fans would have put down Jedi Religion just for fun, and 15,000 people "did it just to give the government a bit of curry"' (Cusack 2010, p.125). It is interesting to note that details of the number of people in Ireland who indicated that their religion was Jedi has, to date, never been released. An attempt to explore this issue with the CSO received the response that:

Entries such as Jedi and Jedi Knight, not being religions, are coded to ‘not stated’. All entries that were recorded in the ‘not stated’ category are stored indistinguishably on our system and therefore we cannot provide a number of those who stated Jedi or Jedi Knight as their religion (CSO 2013b).

The dramatic costs of the census are also themselves becoming a significant issue, provoking opposition to the exercise which questions both its benefits and methods. For example, \$4.2 billion was allocated toward the enumeration process for the US census in 2000 (Bartlett 2001). The 2011 US census costs had increased to \$13 billion, with the Government Accountability Office having ‘noted that the census’s cost has on average doubled each decade since 1970’ (*The Economist* 2011). Similarly in the UK, the 2001 census cost approximately £260 million, an increase of £120 million from the 1991 administration (Geographical 2004). By 2011 this cost was estimated to be almost £500 million (*The Telegraph* 2011).

Accuracy and the Irish census

Perhaps the most transparent ‘inaccuracy’ in the Irish census with which many census users will be familiar lies in the fact that non-responses to individual questions are classed as missing data. As can be seen from Table 1, this can vary from just 0.6% on questions about date of birth to 16.6% when examining distance travelled to work, school or college.

Question	Total Number	Number ‘Not stated’	‘Not stated’ as a % of Total
Date of birth	4,239,848	24,436	0.6
Nationality	4,172,013	44,279	1.1
Place of birth	4,239,848	52,347	1.2
Marital status	3,375,399	47,841	1.4
Time to travel to work, school, college	2,674,307	244,452	9.1
Occupation	2,109,498	230,918	10.9
Employment status	2,458,053	277,903	11.3
Number of children born alive	2,086,821	266,629	12.8
Distance travelled to work, school, college	2,794,225	463,706	16.6

Table 1: Missing Data in the Irish 2006 Census (Source: CSO 2009, pp.22-3)

It is inevitable that errors will occur in any large-scale administrative and bureaucratic exercise such as a census. The CSO appears to be commendably forthcoming and transparent in acknowledging and correcting these when they come to light. For example, in relation to the 2006 census the CSO announced in 2008 that 940 people in the ED of Tallaght – Jobstown had been incorrectly coded to the neighbouring ED of Saggart (CSO 2008). In the same census the CSO noted that Social Care Workers were incorrectly assigned to occupational code 293, alongside ‘social workers and probation workers’ (and hence into Social Class One), when they should have been given occupational code 371, alongside ‘matrons, houseparents, welfare, community and youth workers’ (Social Class Two) (CSO undated b). It is unclear whether new data files are automatically re-issued to those that have already purchased them, or how users that may have accessed them from on-line tables would learn about such errors and subsequent adjustments.

It is, however, interesting to note how dissension which potentially tarnishes the ‘apparent’ accuracy of the census can be dealt with in official House of the Oireachtas records. For example, speaking to a 2012 Public Accounts Committee, Aidan Punch, Assistant Director General (for Economic Statistics) in the CSO stated: ‘I am not convinced that people just tick boxes. Looking at our business statistics over time we get remarkable stability in the data which points to the fact that people are taking this process seriously’. However, John McGuinness TD, Chairman of the Public Accounts Committee, interjected saying, ‘I tick the boxes’. Interestingly, although this interjection is clear in the video clip of the Committee meeting (Daily Edge 2012), it is not included in the formal Oireachtas records (Houses of the Oireachtas 2012).

An important issue relating to accuracy of which many census users may be unaware relates to how the CSO can accommodate non-responses in the census process: ‘In exceptional cases, an imputed form will be constructed by the enumerator on behalf of a household where contact could not be made but reliable data could be gleaned from neighbours. In such cases, key demographic data only are recorded. In addition, in the case of completed census forms where some of the data is missing the relevant missing data is imputed for date of birth, marital status and principal economic status, using distributions from the previous census’ (CSO 2009, p.7).

Compulsion and the census

Census-taking has been the preserve of emperors, monarchs and rulers for centuries. Counting the people measured power, revenue and military might. From earliest times census enumeration has been unpopular with the populace who suspected it to be the fore-runner of conscription or increased taxation or some other unpleasant fate (Crawford 2003).

Most people are probably aware of the legal requirement to complete the census in Ireland. However, research reveals that the numbers facing prosecutions for failure to complete the form are miniscule. Communication with the CSO indicates that prosecutions relating to the census have been both mild and almost

negligible in numerical terms in recent years: ‘A small number of cases were prosecuted under the Statistics Act 1993 after recent censuses (three in relation to the 2002 and two in relation to the 2006 census) – all for refusal to complete the census, with the householders in question all being fined in the region of €200 - €250’ (CSO 2011b). The numbers involved are so low that they could be read in two distinct ways. They could be viewed as indicating that there is little opposition to the Irish census. Alternatively, such numbers could equally indicate that legal responsibilities around the census are minimally enforced, and that potentially the Irish state has no desire to publicise opposition to the census by taking more people to court.

What is perhaps most notable about this issue is the completion by proxy of the census form by the enumerator, which must raise all sorts of questions concerning quality: ‘In a small number of cases field staff were instructed to provide direct estimates of the age, sex and nationality of individuals whom they knew to be present but who went out of their way to avoid enumeration. Some of these individuals were pursued with a view to prosecution by the Courts’ (CSO 2009, p. 21).

Quality Control and the Irish census

The CSO outlines a number of practices that are aimed at improving the quality of Irish census data. For example, it is now normal for the CSO to conduct a consultation exercise before each census. In addition, a pilot survey in advance of the census is standard. For example, the 2006 census was preceded by a pilot survey of 8,000 households (CSO 2009). The CSO suggests that quality in the Irish census is enhanced further through ‘the personal delivery and collection of census forms’ (CSO 2009, p.21). On the issues of training, remuneration and incentives, the CSO (2009, p.24) states that: ‘The enumerators are paid reasonably well and receive comprehensive training. They are instructed to visit every dwelling as often as it takes to make direct contact with the householder. They are paid for every form collected so there is a strong incentive to identify and visit “new” dwellings not already on the map’. A further quality check in the census routinely involves having field supervisors check-up on the work of enumerators (CSO 2009).

Given technical advances and the volume of data to be input, automated coding of the census is standard, based on optical character recognition (OCR) software. The CSO states that automated coding, resulting in false positives on written alphabetical characters, is estimated at a maximum level of two per cent. In relation to numeric characters, they suggest that automated coding results in false positives at an estimated maximum level of one percent (CSO 2009). As the CSO (2009) notes, such coding can be affected by dust and poor quality imaging. In the 2006 Irish census, for example, six million images were re-processed because of this issue (CSO 2009). Interestingly this error was highlighted because results to a particular question deviated notably from those that were anticipated, based on past census returns. Presumably, therefore, such checks are less likely to detect

errors that appear to replicate previous findings.

It is interesting to note that the post-2006 census report notes that the Irish census has become increasingly challenging: 'it was clear from previous censuses, the most recent being in 2002, and from other household surveys such as the Quarterly National Household Survey, that conducting field operations was undoubtedly becoming more difficult' (CSO 2009, p.9). This growing challenge to traditional ways of 'capturing', recording and categorising people results in part from increasing numbers of people owning more than one house, travelling significant distances for work, and living in non-traditional family households.

Perhaps the one crucial quality control measure absent from the current repertoire of tactics utilised by the CSO is the Post-Enumeration Survey (PES), which involves a focussed re-examination of a small number of areas to quantify the nature and extent of weaknesses in the original survey (Hansen *et al.* 1953). For example, in the UK following the 1981 census, a Post-Enumeration Survey was conducted in over 1,000 Enumeration Districts by the Social Survey Division of the Office of Population, Censuses and Surveys (OPCS). This evaluation also included in-depth interviews with approximately 5,000 households. Thus, as Dewdney (undated, p. 30) notes 'the PES ... included both a "coverage check" and a "quality check"'. Results of this exercise indicated that nationally 296,000 people were under-enumerated, while 83,000 people were double-counted (Dewdney, undated). However, as the CSO (2009, p.23) notes 'there is no post-census coverage survey conducted following the census in Ireland, and so no measurement errors for the census as a whole are available'. Therefore, in Ireland, it is significantly more difficult to ascertain the validity of census data.

The Irish census: Summary and Direction

From the review above, it should be clear that any assessment of the actual accuracy of the census must include an acknowledgement of the potential compound impact of missing data, technological issues, census enumerator errors and estimates, potentially including data falsification, and data imputation algorithms.

The importance of the census to those working in geography, and related areas such as public health, sociology and economics should not be underestimated. For example, in the health arena, population counts are routinely used in assessments of incidence, and prevalence, as well as in the preparation of Life Table Estimates and health service planning (Rivers 1977, Aspinall 2011). Similarly, estimates of social class, education and census variables such as 'elderly living alone' are routinely included in 'at risk' and area based deprivation indices. As Davern *et al.* (2009, p.589) note, 'census microdata are a key component of social science infrastructure'. The impact of mis-measurement in the census would appear to be more important now given the introduction of small area unit level data. However, as Bell (1996, p.535) notes: 'Rarely... do published or accepted data sets indicate... potential shortcomings'.

It must be remembered that all of the factors outlined above are potentially only the tip of the 'error' iceberg. Discussing quantitative methods, Bartholomew

and Bassett (1971, p.271) state that ‘measurement is the foundation on which the whole edifice is erected’. However, as the CSO (2009, p.24) astutely notes that ‘there is a limit to what enumerators can do and ultimately they will depend on the honesty of the person completing the form’. This acknowledgement provides the focus and direction for the rest of this paper which explores reports of ‘honesty’ and ‘accuracy’ in the completion of the Irish census.

Method

An opportunistic sample of 140 undergraduate students attending a third-level college in Ireland were approached and invited to participate in this research project. Students in a number of large lecture halls were asked to record on a blank piece of paper whether or not they had always been completely honest on the census. Students were specifically asked not to include their names, student registration numbers or any identifying information in an effort to encourage honest responses. Some 135 respondents agreed, although 21 indicated that they had taken no part in completing the census, it having been completed by their parents. Ethical approval for the study was granted by the Institute’s Social Studies Ethics Review Group.

Responses were analysed using a hybrid method incorporating both inductive and deductive approaches (Fereday and Muir-Cochrane 2006). This approach was adopted as it acknowledges both the *a priori* knowledge and experience of the researcher, but focusses primarily on the transcripts. Thematic analysis was conducted to supplement the *a priori* codes identified by the researcher using the four-stage ‘Framework’ method (Krueger 1994, Ritchie and Spencer 1994, Krueger and Casey 2000, Pope *et al.* 2000, Rabiee 2004, Braun and Clarke 2006, Srivastava and Thomson 2009).

Results

Although this research is exploratory in nature and strives for a further understanding of the issues involved, rather than pursue quantification, it is interesting that 50 out of the 114 participants who stated that they had been involved in filling out the census reported that there had been some level of ‘untruth’ in the responses given. Although there are certain overlapping elements in the themes identified, five relatively distinct themes, pertaining to ‘inaccuracies’ in census responses, were found. These were: resistance; status enhancement; minimal engagement strategies; welfare/tax concerns; and religion.

Perhaps, not surprisingly, one common theme to emerge was that of resistance to government, which clearly had Orwellian ‘Big Brother’ overtones. It is clear that many participants were both concerned about where their responses might appear at a later date, and held a belief that the Government already had enough information on its citizens. These threads are clearly articulated in the following responses:

‘I don’t know where the information provided will end up.’

‘There is also the element, in the back of my mind that you may be giving info to the Government that may come back to haunt you!’

‘lied about job/education because I feel it is none of their business’

‘I feel the Government have too much information... I think this information can be used against you.’

Another common theme evident in responses was that of status enhancement. A number of respondents indicated that they or their parents intentionally misreported employment or educational status to ‘improve’ their social position. Evidence of this phenomenon is clear in the following statements:

‘often lied about my work status due to feeling guilty about being unemployed.’

‘regarding my career or ... job I can sometimes exaggerate’

‘My mother said I was working as a beauty therapist and I wasn’t. I think it sounded better’

‘An enumerator requested to enter the house I was sharing with a friend, and completed the form for us. I lied... about my education. As I did not sit my leaving certificate, I was embarrassed to admit that in the presence of my house-mate and also the enumerator, for fear of being judged and perceived as poorly educated’

‘feels nice to fill out your ideal job rather than your actual occupation’

One interesting theme to emerge related to minimal engagement strategies operationalised by census responders. Participants reported deliberately falsifying answers in order to minimise the effort needed to complete the census instrument. Other respondents clearly indicated an ‘anything goes’ approach, in part because of the perceived complexity of the survey form. This theme is amply demonstrated in the following quotations:

‘I opted not to put down that I was working ... as I couldn’t be bothered to fill in that part of the form’

‘Yes I have, because I’m too lazy to answer the questions properly’

‘Yes, I have given answers that weren’t accurate. I found the census, long, complicated and boring.’

The fourth theme to emerge related to welfare and tax concerns. Some respondents were clearly concerned about the potential financial implications if their responses were known to the State revenue and welfare authorities. This is clear from the following three statements:

‘I have lied about my address. If I say where I really live my grandmother will lose all her benefits of the old age pension, free units of electricity, phone. And I myself may be cut off my “Back to Education”.’

‘We did not want me on his list as it would compromise ... social benefits’

‘I lied about the number of people living in my home as I had “undeclared” lodgers, who I took in to supplement my income’

Another theme to emerge involving inaccuracies and resistance to the census focused on the issue of religion. Issues of habit and resistance around this question can be seen in the responses below. It is clear that for some, the issue of religion is a personal matter, which they feel should be outside of the scope of government attention, while for others it is clear that habitual responses and the religion one is born into appear to take precedence over current belief systems:

‘Religion – not only is it nobody’s business what spooky myth I pretend to believe in but I don’t like putting down I’m a Catholic, so now I’m a Jedi’

‘I ticked the box stating I was Roman Catholic as this is the religion I was brought up in, when in fact I am an atheist. Don’t know why’

Discussion and Conclusion

Close examination of the census process in Ireland has clearly revealed a significant number of issues relating to accuracy of which many census data users may not have been aware. However, these are perhaps minor in contrast with the high level of misreporting noted in this study. It is clear that a significant proportion of people may ‘falsify’ their census returns for a variety of reasons. These include resistance to Government ‘surveillance’, to increase their own status or for tax and welfare reasons. People were also likely to engage in false reporting to minimise their task in completing the survey and in connection with the issue of religion.

There has been a lack of critical examination of the census in Irish academic circles. This paper is in part designed to highlight this deficit and ideally to initiate a more routinely robust interrogation of government statistics in Ireland

(Houghton and Kelleher 2002, Houghton *et al.* 2003, Houghton 2005, Houghton and Houghton 2013). Given the nature of this study, the sample involved was relatively large. However, as with any piece of qualitative research the external validity of these findings is uncertain. In an effort to increase the level of honesty in responses, participants in this study were explicitly asked not to include these details to prevent potential identification. Further research is required to explore in more detail who tends to ‘misreport’ census responses, why and under what circumstances.

It is clear that in its current form the Irish census is critically weakened because of the absence of a Post-Enumeration Survey. However, it is not clear from this research whether even this step will dramatically overcome some of the issues identified. Hansen *et al.* (1953, p.420) noted that the PES was itself found to be subject to error in what they describe as a ‘Check on Check’. Researchers and members of the public using census data should, therefore, remain wary of uncritically accepting it, even if a PES is introduced, until further research is conducted.

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