

Data Collection Support Overview

Introduction

On Sunday 29 April 2001, a Census of Population was held in Northern Ireland and Great Britain. Carrying out the Census is a huge undertaking involving every household in the land. Work on the 2001 Census began almost as soon as the last census in 1991 had been taken. Detailed planning and testing was carried out at each stage of development. A key part of this planning focused on Census Data Collection.

Changes in the way people live and the substantial advances in technology combined with the growth in single person households, changing work patterns and a less compliant society, were taken into account when planning the Census Data Collection project. Census Data Collection was designed to contribute to the strategic aims of the Census as laid out in the 2001 Census of Population White Paper (1999) (Cm 4253) published in March 1999. These were:

- To ensure that the question content is appropriate to meet the demonstrated requirements of users;
- To deliver products and services to meet legal obligations and users' needs within stated quality standards and to a pre-defined timetable;
- To ensure that all aspects of the census data collection operation and the dissemination of results are acceptable to the public and comply with Data Protection Law; and
- To demonstrate that the Census represents value for money.

The primary goals of the Data Collection project included:

- To have the right number of people recruited and trained to appropriate standards in the right place at the right time;
- To pay the field staff employed in taking the 2001 Census in an adequate and timely manner;
- To maximise completeness of coverage of the population by delivering appropriate census forms to every household and communal establishment with an efficient use of resources;
- To design, produce and distribute materials that are fit for purpose to the field force;
- To maximise the overall level of quality of incoming data;

- To enable respondents to post back their census forms or have them collected for processing in a secure manner;
- To provide assistance and help to the public where and when need;
- To ensure the field force was instructed, trained and managed to meet project objectives;
- To maintain confidentiality and security of information collected from the public;
- To manage the census operation in a cost effective and efficient manner to achieve Census enumeration on 29th April 2001; and
- To optimise local knowledge and expertise to improve access to the Census in the Community and Voluntary Sector .

Early on in the development of the 2001 Census Programme it was decided that the Data Collection Project should be divided into Data Collection Development and Data Collection Support. The Census Data Collection Development Project involved:

- developing and managing enumeration procedures;
- training and instruction of the Census field staff;
- design and supply of all census material (including the Census forms); and
- provision of support services for the Public Enquiry Unit (PEU) and field staff management.

The Census Data Collection Support Project involved:

- the planning and implementation of the recruitment of Census field staff;
- preparation of the procedures and arrangements associated with the running of a census payroll system; and
- developing the networks and contacts for a Community Liaison Initiative to facilitate the enumeration of special needs groups and encourage local communities to participate.

Close links between the Geography and Data Collection Support and Data Collection Development projects enabled the effective and expeditious planning of enumerator workloads , facilitating the supplies of field maps and other materials and assisting the conduct of pre-Census geography checks.

This paper covers Recruitment, Payroll and Community Liaison which are the key elements of the Data Collection Support Project and how they contributed to the strategic aims, the methodology applied and the lessons learned

Methodology (Recruitment)

The recruitment methodology was similar to that of 1991 but the change in enumeration methodology from traditional enumerator collection of completed census forms to one of postback by householders meant that less enumerators were required compared to the 1991 Census i.e. 2,590 as against 3,729 in 1991. Northern Ireland differed from Great Britain in that the Recruitment Service administered and managed key elements of the recruitment process, interfacing as necessary with Census Office and Census field staff managers.

The Northern Ireland Statistics and Research Agency (NISRA) complied with the procedures necessary to satisfy the Northern Ireland Equality and Fair Employment standards applicable to an Equal Opportunities Employer. Recruitment of NI Census field staff was directed from Census Office through the Northern Ireland Civil Service's Recruitment Service. This provided access to a central professional resource with extensive experience of the Northern Ireland Equality and Fair Employment recruitment standards. However, Recruitment Service also remained responsible for filling other priority vacancies across the Public Sector and this had to be balanced against managing the significant task of filling some 3,000 temporary posts. It was agreed that competency based assessment was the most appropriate means of selecting the different levels of field staff. Moreover, all selection panels convened for interviewing applicants for the various levels of field staff posts consisted of at least two people who were matched on equal opportunity criteria.

The number and grades of census field staff required was based on the assessment of Enumerator workloads. The supervisory requirements and, for quality assurance purposes, were influenced by the equitable distribution of workloads at the higher grades and consistency with the Office for National Statistics (ONS) and the General Register Office for Scotland (GROS). The Enumerator workloads were derived from the Ordnance Survey of Northern Ireland (OSNI) COMPAS database. Consequently, field staff requirements were identified as 6 Census Area Managers (CAMs), 97 Census District Managers (CDMs), 281 Census Team Leaders (CTLs) and around 2,600 Census Enumerators (CEs). The table below is a summary of the numbers required for each grade and the planned period in post.

Grade	No. Required	Recruitment Start Date	Planned Period in Post
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Census Area Manager	6	1 September 2000	1 Sept 2000- 30 June 2001
Census District Manager	97	30 October 2000	30 Oct 2000- 23 June 2001
Census Team Leader	281	19 February 2001	19 February - 16 Jun 2001
Census Enumerator	2,600	20 March 2001	21 March - 21 May 2001

Census Area Manager Recruitment

For planning and operational purposes, NI was divided into a number of geographical areas comprising amalgamations of district council areas. These areas were managed by the CAMs who were the first level of field staff to be recruited. An advertisement to recruit six CAM posts was placed in the three main NI newspapers with a closing date of 19 May 2000. Of the 23 applications received, 10 were interviewed of which six were offered and accepted appointment. Applicants were interviewed by two senior NISRA officials and a representative from the Recruitment Service. CAMs received Equal Opportunities and Criterion based Selection Interviewing training as they were involved in the recruitment of CTLs and had an oversight in the recruitment of CDMs and CEs. CAMs took up appointment on 1 September 2000 and were in post until the end of July 2001.

Census District Manager Recruitment

Based on the number of District Council groupings and having regard to the most recent data from OSNI, arrangements were made to advertise widely for 97 CDM posts. The first advertisement appeared in the three main NI, and regional newspapers with a closing date of 23 June 2000. As applications for some areas fell short of the required number, a subsequent advertisement was placed with a closing date of 19 July 2000. Difficulties in recruitment were more evident in the South East and North West of the Province and in North and West Belfast.

Contingency provision was made for reserve CDM requirements and other exigencies and 104 appointments were made. Applicants for CDM posts, were interviewed by two civil servants from within NISRA and the Department of Finance and Personnel (DFP), balanced in terms of community background and gender. All field staff were required to provide evidence of competencies relating to communication and interpersonal skills and planning and organisation skills. CDMs all received Equal Opportunities and Criterion Based Selection Interviewing

training in preparation for their role of interviewing Census Enumerator applications processed by the Recruitment Service.

CDMs were appointed in November 2000 and were in post until June 2001.

Census Team Leader Recruitment

An advertisement for 281 CTL posts was placed in the three main Belfast newspapers and in regional newspapers with a closing date of 15 September 2000. The interviewing panels for CTL applicants comprised a CAM and a representative from NISRA/DFP. All selection panel members received equal opportunities and criterion based Selection Interview training, unless they had recently received such training.

Of the 885 CTL applications received, 41.2% attended for interview and 76% of these were subsequently appointed. CTLs were in post from February 2001 until June 2001.

Census Enumerator Recruitment

The Draxmont Report on 'An Outline Strategy for Out-Sourcing for the 2001 Census' proposed that the 'supply and recruitment of census enumerators' should be a candidate for outsourcing. Subsequent research suggested that the activity be reduced to 'payment only.' The NI Recruitment Service agreed with Census Office arrangements to undertake the recruitment of 2001 Census Enumerators. Factors such as the size of the operation in NI, the complexity of the Census and the very tight timetable involved in the field operation with limited opportunity to implement contingency plans, were taken into account in reaching this decision. Included in the recruitment arrangements was the setting up of a separate Section in Recruitment Service directed by a person with Recruitment Service experience based in Census Office.

CE advertisements ran virtually continuously from November 2000 to January 2001 as there were difficulties in recruiting the required number of Enumerators for some areas in Belfast and in the South West and North West of the Province. Census Enumerators were required to demonstrate competence in both inter-personal skills and organisational ability. Of the 4428 applications received by Recruitment Service only 3349 attended for interview by CDMs. This represents a drop-out rate of 24%. Of those candidates who were subsequently interviewed,

96% were offered appointments. The drop-out rate between those candidates offered appointment and those finally appointed was 23%.

In some locations Enumerators had to double-up and enumerate another Enumeration District (ED) in addition to their own. 2,458 Enumerators were assigned to EDs (this included Reserve Enumerators used by Recruitment Service for declined offers) 25 Enumerators were used as replacements to cover pre field work resignations. The remaining vacancies due to non-recruitment for an ED or resignations during the field period were covered by doubling-up. 9 EDs were temporarily covered by CDMs or CTLs pending the Enumerator complement being filled.

Community Liaison

The need to encourage participation, to enhance data quality and to improve access led to a much greater involvement with the Community and Voluntary sectors in the 2001 Census relative to the 1991 Census. This involved drawing upon the skills and resources of local community and voluntary organisations with regard to those groups with Special Needs, such as the visually impaired and those with auditory difficulties, ethnic minorities, including Irish Travellers and groups such as the Homeless where special enumeration procedures were required. In addition, efforts were directed at increasing awareness and providing assistance to the elderly or those with literacy problems. To develop a broadly based approach to these needs, representatives of a diverse range of client groups were invited to a Census Office seminar in October 2000 aimed at explaining the objectives of the Community Liaison Programme and to seek their support. A number of bilateral briefings were held following the seminar to formulate arrangements with Special Needs Groups, representatives of ethnic minorities including Irish Travellers, and representatives of the Homeless etc.

Special Needs Groups

Consultations with the Northern Ireland Blind Centre and the Royal National Institute for the Blind with regard to the Blind and visually impaired indicated that Braille and large print versions of Information leaflets and the NI Household Form (Person 1 Only) audio tapes and signed videos were needed to assist in the completion of Census forms. The NI Blind Centre with its network of contacts with social clubs for the blind and visually impaired was used to disseminate the Census message and meetings held between Census officials and the 10 Blind

Centre field staff who co-ordinate the work of the organisation and meet on a monthly basis. Census 'Fact Sheets' were provided for circulation at these meetings. In addition, an interview was given by the Census Manager to 'Sound and Vision' a service provided by the Blind Centre in the form of a 60 minute audio cassette geared towards the welfare of the blind and visually impaired. He explained the purpose of the Census and for what the information is used. Any requests for assistance from the visually impaired were received by the enumerator on the doorstep or via the Census Helpline. Requests received on the Census Helpline were forwarded to the CDMs who would then pass them to the enumeratr for appropriate action.

The RNIB in Great Britain launched a 'Census Day of Action' on 4 April 2001 calling for everyone with a sight problem to have the right to complete census forms independently and privately using their preferred method of communication, and not to have to rely on other sources such as a friend or census enumerator to complete the Census form on their behalf. While covered in the local media there was little evidence that this achieved the same level of attention in Northern Ireland compared to England and Wales.

A telephone Helpline and text phone facilities were made available for the Deaf and those with audio sensory impairment. Discussions were held with 'Age Concern' representatives who expressed concerns of the Elderly over their vulnerability with regard to people knocking their doors at night and their reluctance to answer. 'Age Concern' representatives agreed to co-operate as fully as possible with the Census and to encourage Senior Citizens to use the 'Help the Aged Helpline' if they had any concerns or needed assistance with completion of their Census forms. At a CAM seminar informing them about the Census, a representative from The Royal National Institute for the Deaf (RNID) attended and explained how the deaf and those with audio-sensory impairment could benefit from the distribution of videos and large text Information Leaflets informing them about the Census.

Wider Community Initiatives

Arising out of the consultations with the various community and voluntary sector groups, a Contact List database was created and details of the central and local community and voluntary group networks and the District Council liaison contacts forwarded to CAMs in January 2001. This enabled them to commence briefing and to disseminate information on the Census. CDMs were involved in establishing the

more detailed local arrangements with their community and voluntary sector contacts to provide assistance to members of client groups who encountered difficulty in completing census forms. Enumerators who came across anyone requiring assistance could channel the request to the CDM to initiate action directly or through the client group representative. Similarly, where a request for assistance was made through the Helpline, Census field staff could be made available or assistance sought from the relevant community or voluntary sector representative.

Arrangements were also made with the Association of Independent Advice Centres (AIAC) and the NI Association of Citizens Advice Bureaux (NICAB) to ensure that if any of their staff encountered people with literacy or comprehension problems regarding the Census, they had a contact person to refer to if necessary. Articles on the Census were also placed in magazines for the elderly, the voluntary sector, homeless organisations and local newspapers for the wider public emphasising the importance of the Census and providing information on the assistance available.

Ethnic Minority Groups

Discussions were held with representatives of a range of ethnic communities to inform them of the facilities that Census Office would be providing to assist in the enumeration of ethnic groups. Census Office provided details of the regional and local co-ordinators of the Chinese, Indian, Pakistani and African ethnic groups in Northern Ireland for use in the Census Area Manager Contact Database. A joint initiative was undertaken between Census Office and the Chief Executive of the Chinese Welfare Association (CWA) to encourage the Chinese community to participate in the 2001 Census. This involved the issue of a letter to around 500 Chinese businesses providing them with information about the Census and the need for everyone to participate. In addition, to increase awareness of the Census amongst the ethnic minorities, translation leaflets were issued in eight languages – Arabic, Chinese, Hindi, Urdu, Punjabi, Bengali, Irish and Ulster Scots. Interpreters were made available for non-English speakers. To assist in establishing the language of members of ethnic minority households, enumerators were issued with a 'Language Identification Card' which enabled the enumerator to establish with the householder which language they spoke so that an appropriate translation leaflet could be provided to explain the Census and how to complete the Census form.

27 Interpretation Services

In situations where an ethnic minority householder could not speak English, interpretation services were made available to assist in the completion of the Census form in English.

Pay

After a review of 1991 Census experience and a successful trial in the 1997 Test it was decided that, for the first time in a Census, the provision of Payroll Services should be contracted out. The contract was awarded to Chessington Computer Services Ltd. (CCSL).

The 2001 Payroll System was based on the submission of properly authorised claim forms at specified points during the operation. The table below shows how NISRA organised the field work by grade of field staff and the payments allowed for each stage. Due to different recruitment arrangements in NI, direct alignment of some of the stage duties with those in England and Wales is not possible.

Field Staff Grade	Stage and Duties	Scheduled Payment Date	Rate
District Manager Typical number per District: 1	1 – Training, preparation and Recruitment of Enumerators	22 Dec 2000	£578.00
	2 – Recruitment of Enumerators and supplies	26 Jan 2001	£496.00
	3 – District Check, appt & train team leaders and supplies	23 Mar 2001	£808.00

	4 – Appt and Train Enumerators, manage Delivery	18 May 2001	£650.00
	5 – Follow-up, Post enumeration and non-compliance work	13 Jul 2001	£935.00
	Additional duties		£8.56/hour *
Team Leader Typical number per District: 3	1 – Instructions, training, district check and supplies	6 Apr 2001	£280.00
	2 – Training enumerators & delivery management	18 May 2001	£380.00
	3 – Post back management and follow up	6 Jul 2001	£757.00
	Additional duties		£7.17/hour*
Enumerator Typical number per District: 30	1 – Training and delivery of Census forms	11 May 2001	£119.00 to £203.00 depending on type of district
	2 – Delivery of Census forms and	15 Jun 2001	£166.00 to £282.00

	follow up		depending on type of district
	Additional duties		£5.55/hour*
	Additional Delivery Allowance	15 Jun 2001	55p/address
	Follow up work	15 Jun 2001	£1.12/address
Expenses	District managers	With each fee	Receipted or 26p/mile
	Team Leaders and Enumerators	With last payment	Receipted or 26p/mile

* national rates

The claim forms were processed using scanning and keying from image. Images of completed forms were provided to the Census Offices. The paper copies were returned to NISRA following the operation. Due to the method of processing the claim forms, the design, number and variation of the payroll forms had to take account of the Service Provider's system constraints.

The proposed field staff pay rates were submitted to and agreed by the Cabinet Office of the Office for Public Service (OPS). This agreement established Census Office pay scales as a link for determining census pay rates. Expense rates were similarly linked to Census Office travel and subsistence rates. To ensure consistency across the UK NISRA adopted the National rate for each grade.

The fees for each field staff grade were calculated using an estimate of the hours the job was expected to take and the agreed hourly pay rate.

Piece rate payments were paid for tasks for which the fee could not be determined in advance, such as payments for follow-up visits to households that had not returned their completed form.

Provision was also made for additional payments where extra tasks were undertaken or where more hours had been worked than had been estimated.

In accordance with the Working Time Directive, CAMs, CDMs and CTLs, i.e. grades employed for over 13 weeks, were entitled to paid leave.

Lessons Learned

Recruitment

Early planning for recruitment of field staff is essential. Failure to have the appropriate number of trained staff and a reasonable contingency provision in place on time has serious implications for the Census, particularly the data collection phase.

The need to ensure that staff are trained in competency based interviewing techniques, adhere to the employment equality guidelines and procedures meet Census confidentiality requirements, inevitably extends the time between advertising posts and appointing staff. The longer this period the greater the drop out rates and this undoubtedly contributed to the difficulties of Enumerator recruitment. Northern Ireland typically commenced advertising a month before Great Britain.

Recruitment Service procedures adapted well to the unique circumstances of the Census recruitment and the hard work of an excellent team fully justified the decision to use their assistance. There were occasional difficulties in maintaining communications between Recruitment Service and CDMs, as might be expected in a dynamic environment. Recruitment necessarily occurred simultaneously at some 35 locations across Northern Ireland leading to some resource pressures.

There may be further scope for ensuring that greater attention is paid to the interface between Recruitment Service and Census District Managers to enable them to respond flexibly to each other's needs. This included issues such as ensuring individuals who failed to turn up for interview were notified to Recruitment Service and promptly replaced, new venues were arranged and interviews scheduled in a suitably co-ordinated manner. It may be useful to strengthen the CAMs interface role in this respect.

The need to ensure interviewers were matched along equal opportunity criteria meant that a considerable number of CDMs did not recruit in their own district. Some CDMs felt this disadvantaged them in not being able to pick their own team while others recognised the need for transparency and equity of the recruitment procedures.

The filling of vacancies at all levels other than Enumerator was completed within the planning timescale. However, while Enumerators were recruited on time for the vast majority of areas, there were locations where difficulty was experienced in immediately filling the required complement. While satisfactory arrangements were arrived at in good time for all areas, special initiatives were required for Newry and Mourne District Council and in parts of North and West Belfast. This resulted in approximately 4% of Enumerators carrying out the enumeration of two Enumeration Districts (EDs).

Community Liaison

Liaison with the Community and Voluntary Sector network was a new and important part of the 2001 Census. The effort involved in establishing a regional database of community and voluntary sector contacts for CDMs proved worthwhile and should be retained. The take-up of assistance varied across Census Districts and was a function of a number of factors including the level of demand, the enthusiasm of the field manager in establishing contacts and the availability of local resources. The availability of contacts nevertheless represented an important support for District Managers to draw on as required, but ultimately participation was voluntary. Community liaison planning would be rewarded by an earlier start, and firming up commitments to assist as early as possible. Information and publicity materials should be available on time to facilitate this. Once data needs are established, this should be an extension of the consultative process.

The Central office for Information provided excellent support in translating Information leaflets and no complaints were received from local groups regarding the nature or quality of the translations. Although there was limited information on the distribution of minority groups across Northern Ireland, the distribution of supplies appears to have worked reasonably well with CDMs and CAMs re-distributing material as needed. Census Office needs to have sufficient resource to undertake and carry-through the requirements of a meaningful community liaison programme without raising people's expectations and not being subsequently able to deliver.

Subject to the policy decision being taken, planning will need to take into account how to provide the visually impaired and blind with alternative means of completing their census forms without prejudicing their independence or privacy.

Early finalisation of Census form content will also facilitate the provision of such measures, e.g.. large print requirements for those with sight difficulties.

Payroll

Evaluation of the payroll contract is ongoing. However, some provisional remarks can be made at this stage.

During live running, a number of problems arose (e.g. postal strikes in Great Britain) which interfered with the smooth operation of the payroll. Additional control procedures adopted by NISRA reduced the impact of these problems. In some cases, NISRA made advances to field staff that experienced payment delays. The Contractor recovered these when the actual payments were subsequently made. Census Office staff also provided a contact point to answer any queries on pay.

Payments were made to 94.3% of Census field staff within two weeks of the due date. A further 3.2% of payments were paid within two weeks of receipt of a valid claim. While the vast majority of field staff received payments within a reasonable time period, some delays occurred in making the remainder. This occurred as a result of a number of factors including poor completion by some enumerators, scanning difficulties and mistakes due to keying errors. However, the relatively small scale of the NISRA exercise allowed Census Office to keep in close contact with CAMs and CDMs regarding the processing of claim forms. NISRA also kept duplicates of personnel records which facilitated the tracking of claims. These advantages resulted in Northern Ireland limiting the impact of any delays.

It is clear that difficulties emerged where the control of claim forms was lost, for example, once they entered the postal system. In the early stages of the fieldwork this proved problematic and in future consideration should be given to allow full tracking of claim forms.

The use of geography control files to verify and validate payees was very successful and should be considered again.

The use of the Bank Automated Clearing System (BACS) for making payments was also very successful and could be used again.

In spite of the pruning carried out after the Census test the general feed-back from field staff was that there were still too many forms. Census Office Northern Ireland provided a Guide to Payroll and included additional training sessions for CDMs emphasising the importance of accurate completion of payroll materials. This assisted in reducing Northern Ireland error rates and training should play an essential role in ensuring the success of any future payroll system.

Additional payments were made to some grades of field staff where significantly more hours had been worked than had been planned. In some instances the additional hours could be explained by the impact of unforeseen events such as foot and mouth and major postback delays, but for some staff the tasks simply took longer to complete than had been estimated.

The close link between what field staff are tasked to do and the budget for paying for that activity is an important one. Procedures need to be agreed early enough to ensure that comprehensive Task Analyses can be produced for each field staff grade and realistic estimates of hours required to complete the job.

Over three quarters of CDMs surveyed indicated that they felt the payroll documentation and the timing of payments was either good or very good. About 60% of those surveyed indicated that the payment levels were adequate.