

Census 2001 Review and Evaluation

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Programme Management: Evaluation Report

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ONS is carrying out a review and evaluation of the 2001 Census in England and Wales which will culminate in a Data Quality report and a General Report being published.

Plans for individual reports on specific aspects of the Census operation and a timetable for release have been published.

Each report is written in isolation and is subject to amendments as processing progresses and further information comes to light.

Reports will be released on the ONS website in the form of a high level Executive Summary and a more detailed Evaluation Report.

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Project Objective

The England and Wales Census, the largest single programme of work organised by the Office for National Statistics (ONS), is a unique once-in-a-decade opportunity to get an up-to-date, comprehensive picture of the country's population. It is a high profile one-off operation, with little chance to recover, modify or change and a clear focus is necessary if the objectives of quality and timeliness are to be met. Mistakes have the potential for being costly and irreversible.

To manage such a complex high risk programme requires a sound infrastructure. The 2001 Census programme management arrangements, the subject of this evaluation, were put in place to meet these requirements. They comprised three key areas: comprehensive programme planning and organisation, a well coordinated project management structure and robust programme control procedures.

Background

The Government announced in October 1992 that planning would proceed on the assumption that the next Census would be held in 2001. The decision followed a UK wide review, Census Policy Evaluation and Re-appraisal (PEAR), which confirmed that there would be a continuing need in both the public and private sectors for the type of information provided by a census and that there were no alternative sources.

The 2001 Census programme was subsequently launched in 1993-94. This was at an earlier stage than for the previous census, in recognition of the National Audit Office's 1991 Census Review finding that development and planning had started too late, resulting in extreme pressure to complete preparation in a timescale, which might have led to errors and wasted resources. At an early stage strategic aims for the Programme were identified and adopted to provide direction and goals, following an early assessment of requirements from the PEAR and a major survey of 1991 Census users, conducted in 1994.

As for the previous census, the 2001 Census programme was planned and conducted around four phases: a research phase reviewing options and proposed new topics; an assessment of options in a public test in 1997; a prototype for 2001 in the Census rehearsal; and 2001

Census production. The programme was built around four strategic aims, identified below, adopted subsequent to an initial phase of consultation with users in 1993. Each aim had a series of indicators of success and progress towards them was reported in a series of Information papers published between 1994 and 1999.

The four key strategic aims:

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

NB: A statement of the overall success of the programme in delivering its strategic aims is to be included in the 2001 Census General Report.

ONS worked in close liaison with the other two offices responsible for censuses across the UK, the General Register Office Scotland (GROS) and the Northern Ireland Statistics and Research Agency (NISRA). Although the three Census Offices operate under legal and administrative processes which differ to some extent, they agreed at the outset that there should be no unnecessary differences in the approaches taken. The overall aim adopted was to maximise the potential for achieving an integrated approach consistent with achieving the best value for money, whilst still meeting each country's particular requirements. Note that planning, and most development, was carried out prior to devolution taking place.

The management arrangements and procedures put in place, as for the 1991 Census, were based upon the Government's PRINCE [Projects IN Controlled Environments] methodology, and were tailored for each of the different phases of the programme to best support the achievement of their various objectives. A

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Programme Management Handbook, available electronically and on paper, brought together a description of the management organisation and the procedures and guidelines for internal use.

This report focuses on programme management within ONS for the 2001 England and Wales Census. It concentrates on evaluating the effectiveness of the structures, procedures and processes that were put in place between 1996 and spring 2003. The outcomes of the projects and programme are beyond the scope of this report and are dealt with in the relevant project reports. A list of the different projects and evaluation reports/summaries is available at www.statistics.gov.uk/census2001/reviewevaluation.asp.

Methodology

Programme organisation

Staffing

For the first time, ONS based the Census operation totally at its Titchfield office in Hampshire. All disciplines of staff working full-time on the Census, which included statisticians, researchers, IM specialists and those providing administrative support, were brought together into one of ONS' twenty-four "Divisions", Census Division. The core number of staff, i.e. those other than temporary field staff, varied between under 50 and a peak, in 2001-02, of 325 (which equated to 272.89 person years).

Figure 1: 2001 Census HQ staff (in person years), between 1996 and 2006

Governance

For the 1991 Census, coordination across countries had been dealt with by drawing up a formal interface agreement with GROS defining in considerable detail the respective responsibilities and contributions of OPCS and GROS. For the 2001 Census, a four tier governance structure was put in place to support the control and coordination of policy and operations across the three Census Offices and bring together the vast diversity of activities and multi-disciplined resources that contribute towards a Census. The steering group, the United Kingdom Census Committee (UKCC)

chaired by the ONS Group Director responsible for the England and Wales census, coordinated policy across the three Census Offices. Membership of the Committee included the Registrars General of Scotland and Northern Ireland. The Census Programme Board (CPB), chaired by the ONS Census Director and including the Census managers from GROS and NISRA, controlled the programme within the strategic framework set by the UKCC. Both were constants throughout the 2001 Census Programme. Below the CPB were a number of project boards, overseeing the final layer of management i.e. projects making up the programme. Project Boards, which owned one or more projects, were specifically responsible for:

- agreeing the scope of projects/contracts and the approach to be taken to complete them;
- appointing Project/Contract Manager(s);
- approving definitions of "owned" project(s)/contract(s);
- setting authorities and tolerances for the Project/Contract Manager;
- defining mechanisms to allow the Board to monitor progress;
- resolving inter-project/contract conflicts and priorities arising between the "owned" projects/contracts;
- approving changes to budgets/timetables;
- approving project end-products after QA and taking key decisions or making recommendations to CPB for decision; regular and exception reporting to Census Programme Board; and
- defining the end of project/contract review procedures and agreeing reports.

The number and scope of responsibilities of Project Boards was varied according to the demands of the different phases of work. Two project boards, Policy and Operations, constituted at the outset of the programme were subsequently supplemented by more specific Boards. For example, the 1997 Test Board, the Publicity and One Number Census Boards were set up before the Census 2001 Rehearsal and the Contracts Management Board was set up after the letting of the Processing contract in 1999. Some rationalisation of the structure for the 2001 Census operations saw the closure of the Operations and Policy Boards.

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Figure 2: 2001 Census Programme - Management Structure 1999

Projects

In principle, all work contributing to the programme e.g. methodological research, systems development, operational running and quality control was to be managed within a formal 2001 Census project, commis-

sioned and controlled within its management structure, with the objective of ensuring that the common planning and management demands were met. The division of work into projects, starting formally in 1996, also, as with boards, changed in response to the demands of the different phases of the programme. Numbers of projects varied from 9 (for the planning and the conduct of the 1997 Test) to 15 to support the Rehearsal and the 2001 Census operation, between 1999 and 2002, as shown in Figure 3 below.

Figure 3: 2001 Census Projects: Lifespans

Projects	Years								
	96	97	98	99	00	01	02	03	Beyond 03
Data Needs	✓	✓	✓	✓	✓	✓	✓		
Legislation	✓	✓	✓	✓	✓	✓	✓		
IS Strategy	✓	✓	✓	✓					
Geography	✓	✓	✓	✓	✓	✓	✓	✓	
Data Collection *	✓	✓	✓	✓	✓	✓	✓		
Data Capture and Cleaning	✓	✓							
Data Quality and Imputation	✓	✓	✓						
Data Quality				✓	✓	✓	✓	✓	
Edit and Imputation				✓	✓	✓	✓	✓	
Under-enumeration and Disclosure Control	✓	✓							
Under-enumeration			✓	✓					
Disclosure Control			✓	✓	✓	✓	✓	✓	
Output Production	✓	✓	✓	✓	✓	✓	✓	✓	✓
Output Policy & Dissemination		✓	✓	✓	✓	✓	✓	✓	✓
Census Coverage Survey			✓	✓	✓	✓	✓	✓	
One Number Census				✓	✓	✓	✓	✓	
Processing			✓	✓	✓	✓	✓	✓	
Downstream Processing					✓	✓	✓	✓	
Publicity			✓	✓	✓	✓	✓		
Census Access					✓	✓	✓	✓	✓

* Split into Data Collection Development and Data Collection Support wef 1998

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Support

The role of Programme Manager was introduced for the first time into a census operation in 1996. The Programme Managers role, assisted by a Programme Support Office (PSO) with a maximum of 17 staff, was put in place to meet financial and business management requirements, and to facilitate the achievement of overall objectives by ensuring that quality procedures operated, that management boards and Project Managers were supported and advised, and that staff had the understanding of the context of their own work and management arrangements sufficient to make an effective contribution within the programme management framework. Specifically, the Programme Manager was responsible for:

- ensuring, by working with Project Managers, that project plans matched overall business requirements and contributed towards census targets and objectives;
- ensuring that projects recognised the full range of joint GROS/ONS activities, once defined by the Census Programme Board (CPB);
- ensuring that projects collectively covered all necessary activities;
- advising Project Boards of the validity of project plans;
- maintaining a high level plan to ensure that project interdependencies were able to be recognised;
- ensuring that any knock-on effects of internal projects were recognised and responded to by other Project Managers;
- acting as a member of Project Boards and the Programme Board and submitting status and exception reports;
- defining project documentation standards; and
- representing ONS on GROS' Programme Board.

Project Management

Roles of Project staff

A Project Manager, appointed to each project, was made responsible for the formal definition of the work, using a standard Project Definition Document (PDD), its breakdown into “work packages” (smaller elements based upon the relatively short-term delivery of a key

end product), obtaining resources to undertake the work, and the delivery of end products. The aim was for the definition to be set at a level high enough to remain relatively static over the life of the project, whilst providing sufficient detail for meaningful monitoring and control. The scope of the work managed within any project could include in-house functions and outsourced activities, the latter therefore requiring a contract management function. A Scottish Coordinator, designated by GROS, and a recognised contact from NISRA were responsible, with the ONS Project Managers, for defining the requirements of contributions from the different Census Offices. Specifically the Project Manager was responsible for:

- establishing a work breakdown structure and identifying the resources required once the project was initiated by a Board;
- producing end products to quality standards and timetable within the project budget agreed by the relevant Board;
- arranging quality assurance (QA) of end products according to Programme procedures;
- creating and maintaining project documentation and plans with PSO help;
- liaising with personnel management to secure staff and allocating them to specific work;
- motivating project staff, organising their work and supervising its execution;
- acting as a member of the relevant Project Board;
- reporting on the position of imminent key project dates to the appropriate Board;
- making recommendations to the relevant Board when a decision was required;
- interpreting and implementing Board decisions;
- ensuring that an assessment of the impact was made for any proposed changes affecting their project;
- providing a response to any issue raised affecting their project;
- producing the project end report and assessment (evaluation); and
- arranging project related training for staff.

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Key Decision Management

As a review of the management of 1991 Census had concluded that decisions were often inappropriately delegated upwards or taken at too low a level, management arrangements for 2001 included a new procedure to allow key decisions to be effectively managed. This involved key decision points being recognised, initially by Project Managers during planning stages, and for each key decision to be allocated to a level of the management structure at which it should be taken. The criteria for referral to different levels of the management structure was defined and, for instance, decisions affecting matters to be stated in the Census Order, changing public statements about high level Census aims or deviate from the UNECEC principles and recommendations for the 2000 round of Censuses were taken by the UKCC. Additionally, the timing of key decisions was used as a basis for ensuring that Management Board meetings were appropriately scheduled.

This progress control framework was approved initially by CPB and also subject to a quarterly review to ensure that forthcoming plans remained relevant.

Examples of key decisions were “Agree field staff pay rates.” and “Agree design of 2001 Census questionnaires.”

Planning

In the time critical programme, timetabling and monitoring were crucial. Although Project Managers could plan down to the degree of detail that met their own management requirements, a minimum level was required so that programme views would have a consistency of detail across the different activities. Some customisation of the package was done to promote the ease of general use and conventions to be adopted as standard across the programme were defined. Programme level plans were produced by the PSO such that supported the different management activities. This required Work Package durations and key decisions to be recognised.

Project software, initially Microsoft (MS) Project 4 replaced by MS Project 98 after the 1997 Test, was used for planning and the recording of progress at the project level, and to create programme views. Each Project

Manager was responsible for a plan, with support for its maintenance given by PSO. Once dates of Work Packages and key decisions, reflecting the Project Definition Document, were approved by the owning Project Board and “baselined” they could only be altered with a similar level of approval.

Reporting arrangements were put in place to ensure that:

- an ongoing audit of progress against plans took place; and
- any deviations from the plan were identified in sufficient time to enable an assessment of impact and the necessary re-planning to take place so as to avoid risk to the successful achievement of the programme’s business objectives.

Project Managers were required to report formally to their owning Project Boards both regularly (in the form of Highlight reports), and, in response to a deviation from an approved plan, Exception Reports were also produced independently and submitted to the appropriate level of board by the Programme Manager.

Programme Procedures

The approach to the control of programme business within the overall strategic aims and its supporting detailed framework of objectives and timetabled deliverables was refined and the associated procedures, identified below, defined and rolled-out in advance of the Rehearsal. Procedures were essentially paper-based at the outset but electronic facilities were used to a varying degree as they became available.

Change management

Change management procedures (CHAMPS) were put in place to ensure that the impact of the inevitable changes to an approved key decision or end product (including specifications, systems, contract terms and outputs), arising from both inside and external to ONS, were thoroughly assessed, decisions taken at an appropriate level and, if adopted, made in a planned and systematic manner.

The management of change covered work undertaken both within ONS and by service providers and the procedures involved stages to uphold contractual requirements.

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A standard set of forms were used to support the proposal of changes, the assessment of their impact, by Project Managers and Service Providers, the decision process and the actioning of any approved. A Change Register was maintained by PSO to provide a summary record of Requests for Change (RFCs) and their outcomes.

Issue management

Issue management procedures (IMPs) were introduced to support a full assessment and any necessary discussion of impact, their resolution at the appropriate level and the communication of outcomes. For 2001, a conscious effort was made to encourage all levels of staff to be involved in the identification of issues to help ensure their early recognition and resolution.

Once discussions within a Project had identified that there was a situation not addressed by current plans, processes or procedures, IMPS were initiated.

A standard set of forms were used to provide an audit trail of progress through stages of recognition and notification, assessment of impact, resolution and implementation of any follow-up action required. An Issue Log was maintained by PSO to provide a summary record of issues and their outcomes.

Risk management

A risk management framework was also developed specifically for the Census and extended to outsourced services. The procedures allowed for the identification and documentation in risk registers, of risks emanating from internal and external sources, the necessary contingency planning, and for the appropriate communication and management. Risk Management procedures provided a framework for:

- identifying the sources of risk at the outset of a project;
- estimating the likelihood of risks occurring in the terms of high, medium or low;
- categorising the potential consequences of risk, again in terms of high, medium or low;
- deciding upon any appropriate counter-measures;

- planning projects to reduce risk;
- recognising new or heightened risks during live course of a project; and
- formally documenting the information required to support the management of risk.

A Risk Register was held for each Project and Registers were accessible to all census staff.

Regular consideration of risk was ensured by a weekly review process, initiated by PSO, which required Project Managers to return a statement confirming their management of risk and identifying any new, changed or proposals for risk closure. This system also allowed for the formal escalation of changes within the management board structure and ensured that Registers were kept up to date.

A senior management post of Risk Manager was introduced in 2000 to ensure risks were regularly reviewed and action taken as necessary.

Financial management

Funding provision for the programme, in total some £207 million (within a UK total of £255 million) covering the period April 1993 to March 2006, was obtained through the Government's Public Expenditure Surveys (PES)/Comprehensive Spending Review (CSR). Final plans for the 2001 Census were endorsed and funding awarded as a result of a business case in CSR 1998. The Business case, which was updated in January 2000, included sections on:

- legislation;
- partnerships with the private sector;
- meeting users' needs for quality; and
- value for money and cost comparisons with the 1991 Census and other international census agencies.

Two financial objectives, relating to achieving greater overall benefit from tax payers investment and maximising the potential for joint ventures and partnerships, underpinned the business case and guided the programme direction.

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Financial management functions to meet the requirements of ONS and the Treasury as well as those from within the programme were coordinated by PSO, engaging with Project Managers. ONS standard procedures were followed to produce annual plans and reviews (stewardship) and corporate financial systems were used to estimate, monitor and report, on a monthly basis, within each year. ONS changed its basis of accounting, in line with Government policy, from a cash to accruals based system at the beginning of the financial year 2001-02.

Assessment & Lessons Learnt

Programme organisation

Staffing

The accommodation on one ONS site of all staff working full time on the programme yielded positive advantages in terms of the ease of communications at the working level within project teams and with the delivery of training to all project staff. The down side may have been a diminution in communication and issue resolution between Census Division and the parts of ONS based elsewhere, particularly the London based ONS senior management.

Governance

The number of levels in the four tier management structure proved sufficient for strategic, policy and operational direction and control, and was probably as simple as it could have been. As there is an inevitable administrative overhead associated with formal management and management boards, this is an important factor in any consideration of governance.

The management structure adopted, with representation from GROS and NISRA at each level, allowed for the necessary coordination across the three Census Offices. In the time between these arrangements being set up and the Census being carried out and published, devolution was implemented, thus transferring various policy responsibilities to the Scottish Parliament and the National Assembly for Wales. Given the timing, the impact of devolution on Census plans was relatively small and could be taken account of within the existing Governance structure which generally provided an effective framework. There are, however, two lessons to

be learnt. One is that the resource needed to implement the different requirements for the 3 offices was governed by the complexity of the different requirements rather than the volume of records to be processed. For the future, it is possible that requirements will differ more as devolution becomes more embedded.

It is likely that future governance arrangements will need to be adapted to take account of the impact of devolution; for example, it is already clear that a more specific role for the representation of Welsh interests will be required. Appropriate governance and funding agreements will need to be put in place at the outset to recognise any different requirements and reach agreement regarding their impact on resource contributions. The second lesson is that the UK governance structure in 2001 meant that there was no framework solely for the governance of the England and Wales Census, a factor which should be considered in any future arrangements.

The composition of the groups of Project Boards in place at the various stages did not always allow for the required operational focus nor provide for an effective level to coordinate inter-project activities beneath the CPB. Advantage might have been gained, for instance, by having a board or sub-group of the CPB specifically to coordinate the rehearsal phase, mirroring the successful approach taken for the 1997 Test. The continuance of the Operations board throughout the cycle could have generally enhanced the coordination of activities during the 2001 Census operation phase by providing a forum to take decisions, including those to resolve issues.

Projects

The inclusion of the vast majority of the various aspects of work into formal projects allowed the requirement for a common approach to the standards of planning and management to be promoted and achieved.

The actual division of work into projects was based in practice upon as close as possible alignment with the existing line management function based structure. Whilst this may have had the potential to reduce any detrimental effects inherent in “matrix” management, it possibly led to more projects than necessary being commissioned, placing an increased demand upon the requirement for project management skills and

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management of interfaces, and did not perhaps promote the building of multi-functional teams required in the majority of projects. Whether or not to define projects along line-management lines should be looked at again for future Census work.

Programme Support

The Programme Manager, with the PSO function, proved effective in coordinating business and financial management activities and in providing the required support to Project Managers, in administering procedures, in providing higher level programme views and in the provision of independent reporting to support decision management at the different board levels.

The Induction course and pack for all new staff, together with a series of briefings and displayed information, promoted the necessary contextual background to the work communication avenues and the cascading of information had a mixed reception in a staff survey, with some difference of opinion about whether or not sufficient information was made available. The regular Open Briefings, given by senior management, were well attended and popular, and boards which displayed material in a more light-hearted fashion were perceived as invaluable.

Initially, the programme management arrangements were successfully launched by a series of workshops and described in a generally available comprehensive Programme Handbook. However, there is some evidence, including Internal Audit (KPMG) observations in a May 1999 report about the key decision process and reporting (see next section), that the arrangements would have benefitted from some enhancement in profile and understanding, perhaps generated from refresher briefings or direction from senior management.

Project Management

Roles of Project staff

Project Managers and their assembled teams were able, with the organisations they established and the available expertise, meet the majority of project objectives. External consultants however needed to be brought in to support contract and risk management activities,

as this expertise and experience was not sufficiently available. An early assessment should be made for any future operation as to the extent that internal resource needs to be supplemented, so that the organisation can be put in place prior to the Rehearsal.

Key Decision Management

Overall, the planned structured approach to management within a framework of key decisions allowed for the appropriate level of decision taking to take place, remedying the problems of the 1991 Census. The regular quarterly review of key dates by the Programme Manager, together with the six monthly submission to the CPB of future key decisions, ensured that important dates were recorded and appropriate decision levels set.

In any future application of the approach, in order to mitigate the risk associated with delays, it is suggested that the recommendation to the approving management board be taken forward as a default in the absence of a planned formal decision, with any subsequent proposal to amend the adopted default being handled within change control.

Criteria for decision taking levels within the key decision management process and guidance on the process itself was supplemented following an Internal Audit report in May 1999, which found that greater clarity and appreciation amongst all staff working in the programme was necessary to ensure its objectives would be met.

Planning

Comprehensive plans were compiled with the appropriate level of detail identified for each project. This allowed for the required programme level reporting and views of interdependencies providing the context for assessments of impact across projects. On a practical side, the structure of the plans could have been more uniform to ease the production of programme level reports. In the main, Project managers ensured that their plans were kept up to date.

The project software used (MS Project) allowed a productive balance to be struck between ease of use and richness of features. MS Project was not one of the MS Suite supported centrally by ONS. A common

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project management package offering the similar level of facilities, used throughout the office would remove the difficulties and overhead associated with the need to have individual licences and arrange for technical support.

Reporting

The Internal audit report mentioned above, whilst endorsing the procedures themselves, revealed a perception at the project level that the reporting requirements in place were excessive, which had the potential for reducing effectiveness. As a consequence, some small changes were introduced but overall the regularity and content of reports were judged fundamental to the essential monitoring and control of the programme. The role of Programme reporting by Programme Managers was valued as an independent higher level view of progress.

Programme procedures

Change management

Nearly 600 requests to change (RFCs) were logged into the CHAMPs, with 250 of those necessarily involving service providers. 95% of logged requests for change were subsequently approved. Whilst generally successfully embedded in the culture of the programme, particularly for changes with direct contract management implications or arising from IM operational requirements, there will remain the challenge in any future programme of uniformly harnessing all the diverse range of activities.

The stages of the process effectively supported the overall objectives regarding the control of change, including contractual requirements. Additionally, the information identified and quantified in the course of the progression of RFCs proved to be an invaluable source in wider aspects of contracts management. The practise of involving all project managers in the impact assessment of each request for change was called into question, on resource grounds, but upheld in order to ensure that everything of significance was identified. Ways to lessen the burden through the introduction of early response buttons into an electronic mail system and a limited fast-stream service helped encourage managers to reply within the deadlines set.

The following lessons, probably equally applicable to all control procedures, were learnt:

- close monitoring is required by an independent PSO;
- senior management must be prepared to reinforce the importance of procedures; and
- commitment is required to train all Project Managers.

The introduction of an electronic based system, identified as being potentially beneficial to the progression of RFCs, did not come to fruition because of resource availability and compatibility problems across the Census Offices. An electronic system should be set up at the outset of any future programme to streamline the process and consideration should also be given to enabling access by service providers.

Issue management

Issue Management procedures worked smoothly as a process but were little used (only 13 issues formally raised) in the context of the number of issues arising which affected more than one project. In practise, issues were generally pursued by line management and through requests for change but the use of a common approach would have minimised the risk to the timeliness and coverage of assessments, promoted relevant discussions of impact, supported controlled decision taking and helped to communication outcomes.

Any future programme would benefit from a more structured approach to the resolution of issues, facilitated by a supportive procedure and, perhaps, dedicated senior management resource, along the lines of the approach taken this time for Risk management.

Risk management

An Internal Audit report (June 2001) concluded that the controls in place were sound. Recognition was given to the value of the Risk Manager post along with the procedures to support an ongoing assessment process and formal documentation. This overall view was enforced by the National Audit Office (NAO) report "Outsourcing the 2001 Census" (October 2002) which concluded that the ONS had established a robust risk management framework. The report acknowledged that:

- appropriate forms of risk registers were maintained and updated;

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- appropriate communication channels were established between the central risk manager and project teams to inform senior management of issues in a timely manner; and
- procedures were in place to capture internal and external risks, and the interdependencies between projects.

It further commented that the framework operated well in many respects. Events were coped with as they arose, including the outbreak of Foot and Mouth disease in many parts of England and Wales, where because of movement restrictions census forms had to be posted rather than delivered by hand.

Financial management

The expectation is that the Census will be delivered within the overall budget of £207 million. This means that there will have been a 25% efficiency gain over the 1991 Census if the following factors are taken into account:

- 10% increase in households;
- increased difficulty in contacting households;
- requirement for earlier planning (NAO recommendation post 1991); and
- producing statistics from all responses made by the public (previously only 10% of the more difficult/expensive topics, e.g. industry, occupation, had been processed). Maximising the potential for entering into joint ventures in order to achieve value for money improvements has resulted in a greater range of outsourced activities than for previous censuses to the value of nearly £80 million, just under 40% of the total.

Figure 4: 2001 Census costs by year

The systems adopted to manage the coordination of financial planning, monitoring and reporting were the subject of regular internal audits (the last in January 2002) and were found overall to be sufficiently robust to enable both internal programme and wider requirements to be met.

Changes to financial systems and accounting policies introduced during the peak of the census operation placed an additional burden on some managers who, in any case, had little experience in finance and business planning. Although this type of change cannot easily be predicted and/or delayed, it is important that all project managers and senior staff have, through training, a sound knowledge base of standard systems. This would go a long way to towards reducing the burden of any essential changes if combined with comprehensive guidance from the ONS central finance team and the support of a local PSO.

Conclusion

The management arrangements put in place, as described above, have collectively provided an infrastructure which overall has allowed for the necessary focus of direction and control to meet the demands of the 2001 Census programme.

Experiences have again highlighted the particular challenge of not just conceiving and defining robust structures of management and procedures but of successfully embedding the required working practices into the culture of a complex programme with its variety of activities and disciplines of staff.

Detailed guidance in the first instance, together with a programme of training throughout, is needed to promote a good understanding of the general principles of project management and how these relate specifically to the Census programme, and to ensure that project Managers and all staff are aware of their roles.

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Census Topics	Target Dates for Release
Legislation	Published
Non-Compliance (Executive Summary Only)	Published
Data Needs	Published
Geography	Published (Executive Summary)
Publicity	Published
Data Collection Development	Published
Data Collection Support	Published
Census Coverage Survey	Published
Processing	Published
Annex: Quality of Data Capture and Coding	Published
Downstream Processing	Published (Executive Summary)
Data Quality	
- Question non-response rates	Published
- Disclosure Control (Executive Summary only)	Published
- Data Validation (Executive Summary only)	Published
Edit & Imputation	Published
One Number Census	
- Quality Assurance	Published
- Lessons learnt (Executive Summary only)	Published
Output Policy	Published (Executive Summary)
Output Production	
- Part 1:Review of Output Released to date	Published (Executive Summary)
- Part 2:including Sample of Anonymised Records (SARs)/Origin Destination Matrices	Published
Census Access	Published
Programme Management	Published (Executive Summary)
Quality Report	Published
General Report	Published

Please note that the dates for release of individual evaluation reports noted above are target dates, and therefore subject to change. For the latest information please visit www.statistics.gov.uk/census2001/reviewevaluation.asp