

Selection of topics and questions for the 2001 Census

Celia Moss
Census Division
ONS

The Government's proposals for questions to be asked in the 2001 Census were published in a White Paper in March this year. The wide range of topics proposed for inclusion represent the culmination of extensive user consultation and testing. Questions have been shown to meet specified criteria in relation to user need, availability of alternative sources, quality, public acceptability and burden on respondents. Significant changes from the 1991 Census include: new questions on general health, provision of unpaid care, time since last paid employment and size of employer's organisation; and major revisions to questions on relationship within the household, ethnic group, and qualifications. A new question on religion is also proposed for England and Wales, however this is subject to a change in Census Legislation. A strong case has been made for the inclusion of a question on income, but the Government has yet to make firm proposals in this respect.

INTRODUCTION

The Government's proposals for questions to be asked in the 2001 Census were published in a White Paper¹ in March this year. The proposals reflect the needs of central and local government, the health service, academics, the business sector and professional organisations identified during a period of extensive user consultation. All questions have been assessed and tested to ensure that there are no alternative sources of information, and that they will produce reliable responses, are acceptable to the public and represent value for money.

This article outlines the process of selecting topics and developing appropriate questions for the 2001 Census, broadly describing the user consultation and testing programme. Information is provided on proposed questions, highlighting changes since 1991. As not all topics identified by users have been able to be included, the article explains the reasons why the Census cannot always meet user requirements. Information is also provided on the broad level of comparability between the 1991 and 2001 Censuses.

The programme for selecting topics and developing questions for the 2001 Census has involved the Office for National Statistics (for the Census in England and Wales), the General Register Office (Scotland) and the Northern Ireland Statistics and Research Agency, hereafter referred to as the Census Offices. Under devolution final decisions on the questions to be included in the 2001 Census will be the responsibility of the legislatures in Scotland and Northern Ireland. The Parliament in Westminster will approve the questions to be asked in England and Wales.

Although reference is made to differences in Scotland and Northern Ireland, this article primarily focuses on proposals for questions to be asked in the Census in England and Wales.

CRITERIA FOR SELECTING TOPICS

All topics proposed for inclusion in the 2001 Census meet the following criteria:

- there is a clearly demonstrated need;
- users' requirements cannot be adequately met by information from other sources;
- a question can be devised which will produce data that is sufficiently accurate to meet users' requirements; and
- the topic is acceptable to the public and will not have an adverse effect on overall response.

Whilst the first criterion has been the primary consideration, a balance between the sometimes competing demands of user need, quality, cost, and public acceptability has been sought in order to achieve optimum value from the Census.

USER CONSULTATION

The Census offers a unique opportunity to obtain comparable information at a small area level, providing a wealth of inter-related information on households and individuals on a consistent basis across the United Kingdom. Accordingly, the importance of ensuring that the content of the Census meets the requirements of users is a key strategic aim. Consultation has been ongoing since 1995, using both formal and informal mechanisms, with submissions received from a wide range of individuals and groups. The Census Offices are grateful for the significant input from users, without which we would not have been able to develop effective questions for the 2001 Census.

Prior to the first phase of user consultation, the Census Offices developed a substantial list of possible Census topics, mainly based on previous Census experience. In view of underlying changes in society, technological developments and changes in government policy since the last Census, a Working Group on Content, Question Testing and Classifications, comprising representatives from the user community, was asked to consider the case for inclusion of these topics in the 2001 Census. The outcome of this process was the identification of a list of 62 topics for which there was *prima facie* justification.

The next phase of consultation focused on assessing and further prioritising the need for information from the Census, and on developing question wording and response categories. Users were asked to describe their requirements for information, based on the list of priority topics previously identified by the Working Group. Detailed business cases were received from central and local government, the health service, academics, the business sector and professional organisations. These cases provided a clear basis against which topics could be assessed and prioritised, describing proposed uses of the information, possible alternative sources, and the geographic level at which data are required. A number of topics were excluded from further consideration due to their comparatively weak business cases.

TESTING

In conjunction with user consultation, an extensive programme of around 40 tests was carried out. A variety of techniques were used including: small-scale testing involving focus groups, cognitive interviews and household based postal surveys; a major household survey in 1997 of 106,400 households; and the Census Rehearsal in April 1999, involving 144,400 households across the United Kingdom. While the main objective of the Census Rehearsal is to test Census processes and procedures, it also

represents the final chance to confirm that proposed Census questions and questionnaire design are acceptable to the public. The Census Quality Survey, undertaken in May 1999, will provide comprehensive information on the quality of responses to questions to be included in the 2001 Census. A summary of the 2001 Census testing programme is provided in Table 1.

Test results have facilitated the development of appropriate wording for questions, and have provided qualitative and quantitative feedback on the reliability of responses and the acceptability of questions. A number of priority topics, including relationship within the household and ethnicity have been subjected to more extensive focused evaluation. A small number of topics have been excluded from the Census as a result of problems highlighted by testing.

OTHER FACTORS

Although outcomes from user consultation and testing have been primary determinants in the selection of topics and development of questions, decisions on processing methodologies and questionnaire design have also been influential.

Data Processing

Technological advances in scanning and image recognition, as well as automatic and computer assisted coding, offer new opportunities to streamline capture and coding processes. Such processes will allow statistics for all topics to be based on 100 per cent of responses. This includes responses to questions that allow respondents to write-in answers, which were expensive to code manually and in previous Censuses in Great Britain were limited to a sample of responses only.

The cost of processing write-in responses is still significant however, and most questions have been designed with pre-coded tick boxes to cover the most commonly occurring response categories. Write-in responses are available for questions only where the user requirement justifies the cost of processing these responses to an acceptable level of quality.

Questionnaire Design

A primary consideration in selecting topics and developing questions for the Census has been to minimise the burden placed on the public. This has been achieved not only through question design, but also by considering questionnaire layout and size.

Major changes have been made to the 'look and feel' of the Census questionnaire since 1991. Whilst this partly reflects requirements for scanning, the 2001 Census questionnaire incorporates recommendations made by form design experts early in the testing programme. Recommendations included ensuring that the questionnaire is clear and easy to follow by minimising routing and other instructions. Testing has been undertaken to determine that, even without detailed instructions, proposed questions can be clearly understood, and will produce reliable results. Topics shown in testing to require substantial explanation, such as proficiency in English, have not been proposed for inclusion.

Whilst decisions regarding the inclusion of topics have not been made exclusively on the basis of questionnaire size, limitations on space have required the prioritisation of topics and, in some cases, the simplification of questions. Questions have been designed to take account of space constraints, while still aiming to meet major requirements.

Harmonisation

Development of Census questions has been co-ordinated with work on harmonising common topics in major government surveys,² with the primary objective of producing comparable outputs. To achieve this,

Table 1 The 2001 Census testing programme

Date	Test / Report	Description
April 1995	How people completed the 1991 Census form	Cognitive interviews with ONS Staff
May 1995	1991 Census Enumerators	10 cognitive interviews
July 1995	Questions on relationship; limiting long-term illness; provision of care; receipt of care	10 cognitive interviews
October 1995	Whole Form Test	200 Households including 34 follow-up interviews
January 1996	Whole Form Test	43 cognitive interviews
April 1996	Questions on ethnic group; proficiency in English	9 focus group discussions with people from Irish, Black British, Asian/South Asian, Cypriot and mixed ethnic groups
April 1996	Employment questions	14 cognitive interviews
May 1996	Employment questions	13 cognitive interviews
June 1996	Questions on provision of care; receipt of care	15 cognitive interviews with adults looking after someone in the household, 3 interviews with people with a long-term illness or health problem.
July 1996	Large Household Continuation Form	30 cognitive interviews with households containing more than 6 people.
July 1996	Ethnic group question	14 cognitive interviews with people from non-white ethnic groups
January 1997	1997 Census Test Advance Round and Information Leaflet	27 cognitive interviews
March 1997	Questions on ethnic group; religion	27 cognitive interviews with people from non-white ethnic groups
June 1997	1997 Census Test	97,000 household survey in Great Britain 9,400 household survey in Northern Ireland
June 1997	1997 Census Test Evaluation Survey	Re-administration of the Test form to 1,300 households
June 1997	1997 Census Test follow-up surveys: provision of care; receipt of care; employment questions; ethnic group; general health and limiting long-term illness; income; relationship; religion; sharers; students	Cognitive interviews

Table 1 continued The 2001 Census testing programme

Date	Test / Report	Description
September 1997	Open and closed industry and occupation questions; question on professional qualifications	2,000 households, quantitative and qualitative results
November 1997	Students	250 interviews with students
November 1997	Communal establishments	Interviews with 30 communal establishments
November 1997	Open and closed industry and occupation questions; question on professional qualifications	2,000 households, quantitative and qualitative results
December 1997	Relationship question	4 groups of cognitive interviews, survey of 200 households, follow-up survey of 100 households
December 1997	Questions on ethnic group; religion	60 qualitative interviews with non-white ethnic groups
January 1998	Ethnic group question	15 cognitive interviews with Irish respondents
January 1998	Burden on the Public	42 cognitive interviews
March 1998	Household Definition Test	Interviews with ONS Staff
April 1998	Open and closed industry and occupation questions; employment questions	2,000 households, quantitative and qualitative results
May 1998	Relationship question	Postal Survey of 200 households
June 1998	Household Definition Test	Interviews with 1,700 households
June 1998	First Whole Form Test	Postal Survey of 5,000 households, follow-up telephone interviews
Aug 1998	First Scottish Whole Form Test	Postal Survey of 1,000 households
September 1998	Questions on economic activity; relationship	20 cognitive interviews
September 1998	Second Whole Form Test	Postal Survey of 5,000 households, follow-up telephone interviews
April 1999	Census Rehearsal	138,600 household survey in Great Britain 5,800 household survey in Northern Ireland
May 1999	Census Quality Survey	Administration of the Census form and follow-up interviews with 2,300 households.

question wording and response categories have been harmonised as far as possible. This work has been undertaken within the constraints of meeting users' requirements for information, and the inherent differences between a census, taken using self-completion questionnaires, and surveys, where the data are collected by interviewers.

TOPICS PROPOSED FOR INCLUSION

Information is provided below on key user requirements and outcomes from testing which have influenced the development of each question, and the exclusion of a number of topics (Table 2 provides a summary of topics considered but not proposed for inclusion).

More detailed information on the selection of topics and development of questions is available in the 2001 Census White Paper,¹ and in a range of papers presented to the Census Advisory Groups.³⁻¹⁶ The Census Advisory Groups are the main mechanism through which the Census Offices consult users of Census data. The groups cover the main customer sectors, including central and local government, the health service, academia and the business sector. Comprehensive information on data quality, including outcomes from the testing programme, will be produced prior to the release of Census data.

Demographic Topics

One of the most important objectives of the 2001 Census is to give accurate and authoritative information on the number of people in the United Kingdom, and to show where they usually live. This information provides an up-to-date base for annual mid-year population estimates for local areas. Population estimates revised in light of the Census form the basis of population and housing projections for future years. The number of people classified by sex, age and marital status are also used to monitor health and mortality patterns, and to enhance analysis of other information collected in the Census.

Questions on *date of birth, sex, marital status* and *usual address one year ago* have traditionally been asked in Censuses in the United Kingdom, and there has been little change in approach for 2001. However, a major change is proposed to the question on *relationship within the household*, which enables formulation of household and family composition, to reflect new user requirements (see below).

Additional questions on *address five years ago* were considered, but were excluded due to concerns over the quality of responses. Other new topics were excluded due to their complexity (*extended family outside the household*) or their comparatively weak business case (*date of most recent marriage or divorce*).

Relationship within the Household

User requirements for more detailed information on household and family composition have led to an expansion of the question on relationship within the household. The 1991 question only collected details on the relationship of each person to the first person listed on the Census form (on the basis that this person was designated the 'Head of Household'). Due to a heavy reliance on manual coding, the information was expensive to process, and thus only a 10 per cent sample of responses was coded. For the 2001 Census, the question asks for the relationship of each person in the household to the first person on the Census form, and other household members. This will enable the identification of concealed families (families where a parent is not the first person on the form), families containing stepchildren, and families with three or more generations. It is intended that 100 per cent of responses will be coded. As the cost of manual coding is prohibitive, the question has been designed to allow responses to be automatically processed using tick box response categories.

Table 2 Summary of questions considered and not proposed for inclusion

	Excluded during first phase of consultation	Excluded during second phase of consultation	Excluded following testing
Demographic Topics			
Extended family	x		
Date of most recent marriage or divorce	x		
Term-time address of students 1 and 5 years before the Census		x	
Usual address 5 years before the Census		x	
Cultural Topics			
Duration of residence in Great Britain and reason for coming	x		
Taught languages	x		
Nationality	x		
Welsh, Irish and Scottish Gaelic outside of Wales, Northern Ireland and Scotland respectively		x	
Proficiency in English			x
Health related topics			
Health / lifestyle	x		
Disabilities	x		
Receipt of care			x
Education topics			
Qualifications write-in			x
Labour market topics			
Number of jobs		x	
Transport topics			
Individual access to private transport	x		
Size of car and number of miles travelled per year	x		
Travel to place of study (excluded in England and Wales)	x		
Income			
Private Pensions	x		
Amount of social security benefits received	x		
Source of income			x
Household Accommodation topics			
Value of the home	x		
Age of property	x		
Garden / yard		x	
Furnished / unfurnished (excluded in England, Wales and Northern Ireland)		x	
Tenure write-in (type of tenancy agreement)			x
Landlord write-in			x

Two approaches, aimed mainly at identifying spouses/partners and their children, were considered and tested. One approach was based on asking each person a series of questions; the other involved a matrix-style question, which sought to identify relationships within the household through a number of pre-coded tick boxes. Initial testing indicated that while both approaches were problematic in larger households, the approach that involved asking a series of questions of each person required multiple entry of the same information, providing respondents with more opportunity to introduce inconsistencies. In addition, this approach required more space on the Census form than the matrix question. Changes to the layout of the matrix style question, and the provision of more effective instructions, have improved the quality of response and the relationship matrix has therefore been proposed for inclusion.

Cultural Topics

The successful introduction of a question on ethnic group in the 1991 Census underlined the value of the Census as a source for understanding the patterns and processes of integration, identifying and evaluating the impact of inequalities, targeting services and assessing

disadvantage. An increasing requirement for more sophisticated measures of cultural identity has been reflected in submissions for the inclusion of a number of cultural topics for the 2001 Census.

A question on *country of birth* is again proposed for inclusion. In addition, demand for information on ethnicity and religious affiliation was sufficient to justify the inclusion of these topics, and considerable attention has been given to the development of effective questions.

There was also a strong business case for a question on *proficiency in English*. However, testing failed to substantiate the viability of including this topic. Limitations imposed by a self-completion questionnaire combined with the complexity of collecting meaningful information on ability in English could not be overcome. An effective question on main language spoken at home was devised, however this did not meet the stated primary need relating to ability in English.

Proposals to include new topics on *nationality* and *duration of residence*, and to extend the existing questions on *Welsh, Irish and Scottish Gaelic* throughout the United Kingdom, were rejected because of relatively low levels of support. A new question on *taught languages* was also proposed. However, as there was no requirement for this information at a local level, it was considered inappropriate to include in the Census.

Ethnic Group

In England and Wales, users' requirements for additional information on people of mixed ethnic origin, and demands to sub-divide the 'White' population, in particular the 'Irish', have been met by an expanded *ethnic group* question. New response categories provide optimum comparability with information from the 1991 Census, while at the same time meeting the needs of those who prefer to describe themselves as 'Black British' or 'Asian British'. Test results indicated that the topic of ethnicity was acceptable to the public.

Two versions of the question were tested in the 1997 Census Test, one using the term 'ethnic group', and the other the term 'ancestral origin'. The qualitative follow-up survey highlighted specific problems with the term 'ancestral origin' and the position of the mixed category, which was moved in subsequent testing to ensure that respondents did not overlook the category. The term 'ethnic group' was broadly understood by respondents, and encompassed a wide range of attributes including birthplace of parents and race. In subsequent small-scale tests an additional instruction referring to 'cultural background', interpreted as relating to the respondent's way of life in terms of cultural attributes such as religion, language, dress, place of birth and ancestry, helped clarify the question for respondents.

In Scotland a question similar to that used in the 1991 Census is proposed, but with the addition of a 'Mixed' ethnic group category. In Northern Ireland, where the question will be asked for the first time, an additional category is provided for 'Irish Traveller'. These questions reflect different requirements in Scotland and Northern Ireland. However, broadly comparable statistics can be produced throughout the UK and, in Great Britain, with statistics from the 1991 Census.

Religion

The proposal for a new question on *religion* has been the subject of comprehensive user consultation and testing. The main user requirement is to determine the respondent's religious affiliation in order to supplement output from the question on ethnicity, identifying ethnic minority sub-groups in terms of their religion. Testing indicated that respondents found the inclusion of this topic acceptable. Some respondents saw the question as an opportunity to further define their cultural identity, or considered that religion was a better indicator of their ethnicity and culture than ethnic group alone.

The proposed question in England and Wales is '*What is your religion?*'. Due to confusion during testing over terms such as 'belief', 'religious group' and 'practising', no further instructions are included. The question provides a number of pre-coded tick box response categories, mainly focusing on religions relevant in the Indian sub-continent. A single category for 'Christian' is included. Although consideration was given to splitting this category into several tick box responses, the case for doing so was not strong enough to warrant a significantly larger question. A category 'None' is provided, as is a write-in for people unable to find a suitable box to tick.

The inclusion of a question on religion in England and Wales depends on a change to Census legislation, as the Census Act 1920 does not currently permit such a question to be asked. A question on religion has traditionally been included in the Census in Northern Ireland, and will be repeated in 2001. The question in Northern Ireland will be similar to that included in the 1991 Census, however respondents who indicate 'no religion' will be asked to record the religion in which they were brought up. Consultation with users in Scotland indicated that there was less demand for this information, and as a result the topic is not proposed for inclusion there.

Health Related Topics

Three questions relating to health have been proposed for the 2001 Census, providing a unique opportunity to collect information on these topics on a consistent basis for small areas across the United Kingdom. Whilst a similar question on *limiting long-term illness* was asked in 1991, two new questions have been included for 2001, covering *general health* and the *provision of unpaid care*.

A question on *receipt of care* was tested in conjunction with questions on provision of care and limiting long-term illness. Although suitable questions could be devised on the latter two topics, the receipt of care question was problematic. Comparison of responses to the 1997 Census Test and the follow-up Census Test Evaluation Survey revealed a high level of discrepancies for this question (33.6 per cent). In addition, a routing instruction linking the questions on receipt of care and limiting long-term illness did not work. Subsequent cognitive testing indicated that respondents and their carers sometimes had different views on whether care was being provided, leading to inconsistent responses to the questions on receipt and provision of care within the household. As an effective question could not be devised, this topic has not been proposed for inclusion in the 2001 Census.

A number of other health-related topics were excluded during consultation. A *health/lifestyle* topic, covering issues such as smoking, alcohol consumption, diet and exercise, was considered unsuitable for the Census, as a considerable amount of detailed information would be needed to construct an effective indicator. In addition, information on this topic is available from other sources. Likewise, the Census was not considered a suitable vehicle for the collection of detailed information on specific *disabilities*.

General Health

The new question on general health asks respondents to assess their own health over the preceding 12 months as either 'Good', 'Fairly good', or 'Not good'. This information has been shown to be a good predictor for the use of health services. Testing revealed that there were a range of interpretations and references used by respondents in answering the question. However, there was broad agreement between responses and levels of medical attention sought during the past year. It was determined that, although subjective, the question meets the main requirements of users.

Provision of Unpaid Care

In recognition of the increasing amount of voluntary help provided, there was strong support for information on the provision of unpaid care. Users were initially concerned with obtaining information on whether care was provided to someone inside or outside the respondent's household. The question has been refocused to obtain a measure of the amount of time spent providing care, to help provide information to support the Government's Carers Strategy. Testing indicated that the definition of care was not well understood and explanatory notes have been included in order to improve the quality of response.

Qualifications

Information from the Census on the levels of educational and vocational qualifications attained is used in conjunction with other Census data in the measurement of shortfalls in the provision of education and training, and in assessing the reserves of skilled and qualified people among the unemployed.

In the 1991 Census in Great Britain, respondents over the age of 18 were asked to write-in details of their academic, professional and vocational qualifications, including the name of each qualification, the field of study and date it was attained. The question required manual coding and was costly to process. A requirement to include information on school level qualifications, and changes to facilitate automatic coding, mean that the proposed question on qualifications will be substantially different from that asked in 1991.

For the 2001 Census, information will be collected on broad levels of qualifications for people aged 16 years and over, using pre-coded tick boxes. In England and Wales the question will also collect information on whether people have teaching, medical, nursing and/or dental qualifications. As there is less of a requirement in Scotland and Northern Ireland it is not proposed to collect information on specific professional qualifications there. Development of a question on this topic has not been easy, mainly due to the wide range of possible responses, and problems with the provision of proxy information. As such it has been the focus of substantial testing.

In the 1997 Census Test, the question provided a substantial list of pre-coded tick box response categories (for example, 'GCSE (grades D to G)' or 'Level 2 NVQ/SVQ'). An option was also provided to write-in qualifications other than those listed, including foreign qualifications and details of professional qualifications. Testing revealed that the question caused confusion with respondents, particularly where they could not find a category that specifically described their qualification/s. The length of the question, combined with the general problem of recollection, created difficulty and offered scope for errors. There was clear evidence to show that this question was unable to provide accurate or consistent information on educational attainment. In addition, the cost and complexity of coding write-in responses was considered prohibitive.

Subsequent testing focused on developing two questions designed to firstly capture broad levels of educational and vocational qualifications, and secondly, numbers of people with selected professional qualifications in England and Wales. Both questions used pre-coded tick box response categories only. However, results indicated that respondents in England and Wales were confused about the link between the two questions.

Taking account of the problems encountered in testing, and the prohibitive cost of coding write-in responses, a single question on qualifications is proposed. The question is designed to meet priority user requirements by providing a limited number of pre-coded tick box response categories, giving relevant examples of qualifications at each level, and a number of specific professional qualifications in England and Wales.

Labour Market Topics

The Census is an important source of information about the labour market, and traditionally includes a number of questions on employment and the socio-economic characteristics of the population. Requests for established questions on *economic activity*, *employment status*, *hours worked*, *industry* and *occupation* have been supplemented by demands for new information. New questions on *time since last employment*, *size of workplace* and *supervisory status* are proposed. A business case for a new question on *number of jobs* was made but was not considered strong enough to justify its inclusion.

Industry and Occupation

The decision to process 100 per cent of responses from the 2001 Census has major operational and financial implications for the collection of information for *occupation* and *industry*. In order to assess whether technological advances could be harnessed to minimise the time, effort and cost of processing this information, a series of trials designed to test the effectiveness of using alternative pre-coded tick box (closed) and write-in (open) questions was undertaken. Despite repeated refinements and modifications, the closed questions were found to be ineffective, as respondents were frequently confused and failed to find an appropriate response category. Although closed questions would be cheaper to process, testing clearly showed that financial savings could only be achieved at the expense of data quality. These findings, together with the widespread need for detailed information on occupation and industry, have ensured that traditional write-in questions will be retained in 2001.

Economic Activity

Users identified a clear requirement for compatibility with International Labour Office (ILO) definitions in order to safeguard the comparability and utility of census outputs. A number of approaches have been tested in an effort to meet these needs. Initial small-scale tests of a question on economic activity demonstrated the difficulty of encapsulating the multiplicity of concepts associated with the ILO definitions in a single question. Analysis showed that respondents did not understand the purpose of the question, and a general failure to multi-tick all relevant responses was exacerbated by incomplete returns for those in paid work. An alternative approach based on a series of simple questions that focused successively on the 'economically active', the 'unemployed' and the 'economically inactive' worked more effectively. As results indicated that most respondents understood the series of questions and correctly followed routing instructions, they are proposed for inclusion in the 2001 Census.

Other Labour Market Related Topics

Consideration has been given to the collection of information to enable the derivation of the new National Statistics Socio-economic Classification. Following evaluation of alternative questions including size of workplace and size of organisation, and questions covering supervisor/manager responsibilities, it was agreed that the 2001 Census would include questions on size of workplace and supervisory status. While size of organisation would provide the ideal information for differentiating social classes based on occupation, workplace details will be adequate for all but a minority of workers.

Transport Topics

There is little change to established questions on *address of place of work* and *method of travel to place of work* in England, Wales and Northern Ireland. In Scotland it is proposed to extend the coverage of these questions to place of study for students and schoolchildren. This will provide fuller information on daytime populations and travel patterns. Extension of the transport questions to cover place of study was rejected in England and Wales at an early stage, as the case was not strong enough to warrant the high cost of processing.

A household question on the *availability of cars and vans* will again be included. Topics covering *individual access to private transport* and *size of car and number of miles travelled per year* were considered early in the consultation process, but were not recommended for inclusion due to lack of support.

Income

A question on income has not previously been included in a Census in the United Kingdom. However, consultation with users has clearly identified a widespread requirement for information on this topic. Income data is seen as a more discriminating variable than occupation or housing condition for the purposes of identifying areas of affluence or deprivation. Users consider that the information is critical in responding to Government initiatives on inequality, social exclusion and deprivation. They emphasise the importance of the availability of information on income for small geographical areas, and the ability to use this data in conjunction with other information collected in the Census. The main requirement is for a measure of household income, particularly in relation to households at the lower end of the income scale.

Initial small-scale tests included questions on *source of income* and total gross income, at both the individual and household levels. Testing indicated that the question on sources of income failed to elicit relevant information on all types of income, and was considered unacceptable to respondents. In addition, it was agreed that a question asked of individuals was preferable to a question on household income, which was considered to be intrusive, particularly by those living in households of unrelated adults.

Results of small-scale tests were used as the basis for deciding to include a question on *individual gross income* in the 1997 Census Test. An income question was included on half the forms used in the 1997 Census Test, with further testing undertaken in the Census Test Evaluation Survey and a qualitative follow-up survey of 36 respondents who had difficulties completing their form. The question was designed to be as acceptable as possible, with a minimal number of income bands, placed at the end of the Census form.

Analysis of response rates in the 1997 Census Test suggested that the inclusion of an income question lowered overall response in terms of the proportion of Census forms returned, from 57.4 per cent to 54.6 per cent. Statistical analysis shows that these differences were unlikely to have occurred by chance. More detailed statistical analysis shows that differences in response were more pronounced in inner city areas. In follow up surveys, 15 per cent of people who had an income question on their form objected to it, while 29 per cent of those who did not have the question said that they would have objected to it.

Successive tests have shown that respondents fail to include all sources of income, make mistakes in their calculations and are confused about the meaning of gross and net income. Errors in individual income bands will be compounded when added together to provide household income. Although there has been interest expressed by users in increasing the number of income bands, the primary requirement is for information on households at the lower end of the income scale. The 1997 Census Test showed that respondents felt the limited number of bands reduced the intrusiveness of the question, and made it more acceptable. In addition, a request for any more detail would compound accuracy problems.

The Government recognises the widespread need for information on income, but is concerned about the risks to the conduct of the Census as a whole of including such a question, and about the reliability of the information collected. Accordingly, alternative sources of information on income are being investigated, and consideration is being given to the

possibility of enhancing the value of alternative sources using statistical modelling techniques. The Government will make final proposals on whether or not a question on income should be included in the 2001 Census in time to be included in the Census Order at the end of 1999.

A requirement was identified at an early stage in the consultation process for more detailed information on specific sources of income, such as *private pensions* and *social security benefits*. However, questions distinguishing these from other sources of income could not be justified. The availability of alternative information and the intrusiveness of these topics meant that they were not further considered.

Household Accommodation Topics

Information about the accommodation occupied by each household is traditionally included in the Census. The Census will again provide a count of dwellings, including vacant dwellings and dwellings shared by two or more households. This will show the way in which the housing stock is being used, and provide a firm basis for assessing current and future demands as the number and type of households change.

Similar questions to those asked in 1991 on *type of accommodation* and *self-containment, number of rooms, amenities (exclusive use of toilet, bathroom and availability of central heating), tenure and type of landlord* are proposed for inclusion in the 2001 Census. Consideration was given to requirements for more detailed information on tenancy and type of landlord, by asking respondents to provide write-in responses. However, analysis of text in the 1997 Census Test indicated that only a small proportion of responses could not be accommodated by pre-coded tick box categories.

In Scotland, additional information will be collected on whether rented accommodation is *furnished or unfurnished*, however there was not a comparable user requirement for this information in the rest of the United Kingdom. Other household topics including *age of property* and *value of the home* have been excluded due to availability of other sources and concerns over quality and public acceptability. A business case for a new question on *availability of garden or yard* was made but was not considered strong enough to justify its inclusion.

A question is proposed on the *lowest floor level of accommodation*. This will provide a measure of households and people living in potentially unsuitable accommodation. The question is new to the Censuses for England, Wales and Northern Ireland, and is based on one previously asked in Scotland. In Northern Ireland there will also be a new question on the *number of floor levels* in the accommodation, however there was no requirement for this information in the rest of the United Kingdom.

COMPARABILITY WITH 1991

The main differences between questions asked in 1991 and those proposed for the 2001 Census are described above, and summarised in Table 3. However, there are a number of changes to population definitions that will also impact on the level of comparability with previous Censuses.

A primary objective for 2001 is to maximise coverage, particularly for those groups in the population that are traditionally hard to enumerate. The 1991 Census in Great Britain counted around 98 per cent of the population, however some groups of people, such as young males in inner city areas, were missed to a greater extent than others. For the 2001 Census, a major aim is to minimise bias by improving coverage of these groups.

One strategy to achieve this has been to simplify the basis on which we collect information from respondents. It is proposed that the 2001 Census will be conducted solely on a resident basis. That is, statistics will relate

Table 3 Comparison between 1991 and 2001 Census questions

	1991	2001 (proposed)	Major differences
Demographic Topics			
Sex	✓	✓	
Date of birth	✓	✓	
Marital status	✓	✓	2001 – extra category provided for separated.
Relationship within household	✓	✓	1991 – relationship to head of household only. 2001 – relationships between all members of the household.
Whereabouts on Census night	✓	x	2001 – question not required, Census conducted on a usual residence basis only.
Usual address	✓	x	2001 – question not required, Census conducted on a usual residence basis only.
Usual address one year ago	✓	✓	
Cultural Topics			
Country of birth	✓	✓	
Ethnic group	✓	✓	2001 – expanded question
Welsh/Scottish Gaelic/Irish Language (asked only in Wales, Scotland and Northern Ireland respectively)	✓	✓	2001 – asked for the first time in Northern Ireland
Religion	✓	?	1991 – asked in Northern Ireland only 2001 – asked in Northern Ireland. Inclusion in England and Wales subject to a change in Census legislation.
Health Related Topics			
Limiting long-term illness	✓	✓	
General health	x	✓	
Provision of unpaid care	x	✓	
Education topics			
Whether student or schoolchild	✓	✓	1991 – part of the employment activity question 2001 – separate question
Term-time address for schoolchild or student	✓	✓	1991 – write-in 2001 – tick box response only
School level qualifications	x	✓	2001 – applicable to people 16 years of age and over, broad level only
Degrees, professional and vocational qualifications	✓	✓	1991 – applicable to people over the age of 18, level and subject collected 2001 – applicable to people over the age of 16, broad level and selected professional qualifications (England and Wales only)
Labour Market Topics			
Economic activity (whether in job, unemployed, retired, part-time/full-time status etc.)	✓	✓	1991 – one multi-tick question 2001 – a series of questions to enable production of ILO compatible outputs. Part-time/full-time status derived from hours worked.

Table 3 continued Comparison between 1991 and 2001 Census questions

	1991	2001 (proposed)	Major differences
Time since last employment	✓	✓	1991 – the question asked whether the person had a paid job in the last 10 years. 2001 – respondents are asked to write-in the year that they last worked.
Hours worked	✓	✓	2001 – used to derive part-time/full-time status.
Employment status (whether employee, self employed etc)	✓	✓	1991 – combined with activity question
Name and nature of business (Industry)	✓	✓	
Size of workplace	x	✓	
Occupation	✓	✓	
Supervisor status	x	✓	
Transport Topics			
Number of cars and vans	✓	✓	
Address of place of work	✓	✓	
Method of travel to work	✓	✓	
Income			
Income	x	?	2001 – decision pending
Household Accommodation Topics			
Type of accommodation	✓	✓	1991 – information provided partly by enumerator, and partly by householder 2001 – information provided by the householder
Lowest floor level of accommodation	✓	✓	1991 – asked in Scotland only 2001 – asked across the United Kingdom
Number of floors	x	✓	2001 – asked in Northern Ireland only
Number of rooms	✓	✓	
Self-contained accommodation	✓	✓	
Tenure	✓	✓	1991 – question combined with Landlord
Landlord	✓	✓	1991 – question combined with Tenure
Furnished/unfurnished	✓	✓	1991 – asked across the United Kingdom 2001 – asked in Scotland only
Exclusive use of bath/shower, toilet	✓	✓	1991 – information available for bath, shower and toilet separately. Information also collected on whether the toilet was inside or outside. 2001 – no information available for amenities separately. No information on location of toilet.
Central heating	✓	✓	1991 – information separately available on whether central heating was available in all rooms, or some rooms.

only to where a person usually lives, as opposed to where they are located on Census night. No information will be available on the people present in an area on Census night but not usually resident.

The resident population base for 2001 is broadly comparable to the usually resident population base in 1991 Census output, although there is a significant difference in the treatment of students and schoolchildren. In 1991, students and schoolchildren away from home during term-time were treated as usually resident at their 'parental' or 'vacation' address. This was inconsistent with the mid-year population estimates, and caused problems for people completing Census forms on behalf of children over the age of 18. For the 2001 Census it is proposed that students and schoolchildren be enumerated as resident at their term-time address, with basic demographic data (age, sex, marital status and relationship) collected at their parental address. This will enable the inclusion of these children in the derivation of family composition.

Research has been undertaken into other population definitions, however no major changes are proposed. Consideration was given to changing the definition of a 'household' in an attempt to improve coverage, as there was some indication that the definition used in the 1991 Census might no longer be in line with the public's understanding of what constitutes a household. However, small-scale testing was unable to establish that a change in definition would significantly improve the count of households and individuals. Thus, for reasons of comparability it was determined that the 1991 definition should be retained.

WHERE TO FROM HERE

The Government will prepare an Order in Council in respect of the Census in England and Wales, towards the end of 1999, for approval by both Houses of Parliament in accordance with the Census Act of 1920. The Order will set out the date of the Census, who is included and the information to be provided. Around March 2000, Census Regulations will be laid before Parliament, making detailed provision for the conduct of the Census in England and Wales, and containing specimens of the forms to be used.

It is envisaged that the local administrations in Scotland and Northern Ireland will wish to make similar arrangements with their respective legislatures for the conduct of their Censuses.

FURTHER CONSULTATION

The effort and cost of taking a Census is only worthwhile when results meet needs and are delivered effectively. The extensive programme of consultation and testing on the content of the Census has aimed at ensuring that results will meet user needs. Although the content of the Census has largely been finalised, further consultation on the nature of

products and services to be developed for the 2001 Census is being undertaken to ensure these results are delivered effectively. First proposals for output¹⁷ have been produced. They are designed to be flexible and responsive, and to meet a wide range of user requirements. The proposals aim to achieve an effective balance between traditional delivery of results in standard, pre-planned tables, and the development of more effective tools for the delivery of customised information on an ad-hoc basis to meet the more specialised needs of users.

REFERENCES

- ¹ *White Paper - 2001 Census of Population and Housing*. Cm 4253, The Stationary Office, 1999
- ² *Harmonised Concepts and Questions for Government Social Surveys*. Office for National Statistics, 1996
- ³ *Question Testing Programme*. Office for National Statistics, Census Division, Advisory Group Paper AG(96)01.
- ⁴ *2001 Census Content*. Office for National Statistics, Census Division, Advisory Group Paper AG(96)03.
- ⁵ *Population Bases*. Office for National Statistics, Census Division, Advisory Group Paper AG(96)14.
- ⁶ *1997 Census Test: Objectives, Evaluation and Key Dates*. Office for National Statistics, Census Division, Advisory Group Paper AG(97)01.
- ⁷ *Business Cases for Topics*. Office for National Statistics, Census Division, Advisory Group Paper AG(97)02.
- ⁸ *Census Test Questionnaire*. Office for National Statistics, Census Division, Advisory Group Paper AG(97)08.
- ⁹ *Progress on Business Cases for Census Questions*. Office for National Statistics, Census Division, Advisory Group Paper AG(97)11.
- ¹⁰ *Progress on Small Scale Testing of Possible Census Questions*. Office for National Statistics, Census Division, Advisory Group Paper AG(97)12.
- ¹¹ *1997 Census Test Evaluation*. Office for National Statistics, Census Division, Advisory Group Paper AG(98)01.
- ¹² *Progress on Small Scale Testing*. Office for National Statistics, Census Division, Advisory Group Paper AG(98)02.
- ¹³ *Population Bases*. Office for National Statistics, Census Division, Advisory Group Paper AG(98)04.
- ¹⁴ *Census Household Test Report*. Office for National Statistics, Census Division, Advisory Group Paper AG(98)12.
- ¹⁵ *2001 Census Information Paper*. Office for National Statistics, Census Division, Advisory Group Paper AG(99)02.
- ¹⁶ *Population Definitions*. Office for National Statistics, Census Division, Advisory Group Paper AG(99)04.
- ¹⁷ *Output: A Discussion Paper*, Office for National Statistics, Census Division, Spring 1999 (available from Census Offices and the ONS Website at www.ons.gov.uk)