Beyond 2011

Consultation on user requirements for population and socio-demographic information

18 March 2013 – 10 June 2013

Consultation Questionnaire

The easiest and quickest way to respond is to complete the questionnaire online at: www.surveymonkey.com

Alternatively, you can:

- email a completed copy of this template to: beyond2011@gro-scotland.gsi.gov.uk or

- send a paper copy to:
  Beyond 2011 Consultation
  National Records of Scotland
  Ladywell House
  Room 1/2/12
  EH12 7JT

The closing date is 10th June 2013

If you have any queries, including alternative formats, please contact us at: beyond2011@gro-scotland.gsi.gov.uk

Introduction

The Beyond 2011 programme is an ongoing programme within National Records of Scotland (NRS) to research suitable methods for producing population and socio-demographic information. The success of the Programme will depend on NRS having a clear understanding of user requirements and priorities and it is these requirements that this questionnaire is intended to capture.

This consultation aims to build upon previous consultations conducted by NRS as well as stakeholder engagement sessions. We would be grateful for your continued co-operation and ask you to help us by completing this questionnaire.

Section A: RESPONDENT INFORMATION FORM

Please Note: this form **must** be returned with your response to ensure that we handle your response appropriately.

Q.1 Name/Organisation

Organisation Name

Institute and Faculty of Actuaries

Title **Mr** ☐ **Ms** ☐ **Mrs** ☐ **Miss** ☐ **Dr** ☐ **Please tick as appropriate**

Surname

N/A

Forename

N/A

Q.2 Postal Address

Maclaurin House		
18 Dublin Street		
Edinburgh		
Postcode EH1 3PP	**Phone** 020 7632 2136	**Email:** daniel.deburca@actuaries.org.uk

Q.3 Permissions - I am responding as…

Individual	/	Group/Organisation
☐	Please tick as appropriate	☒

(a) Do you agree to your response being made available to the public (in Scottish Government library and/or on the Scottish Government web site)?

Please tick as appropriate
☐ **Yes** ☐ **No**

(b) Where confidentiality is not requested, we will make your responses available to the public on the following basis

Please tick ONE of the following boxes

Yes, make my response, name and address all available ☒

or

Yes, make my response available, but not my name and address ☐

or

Yes, make my response and name available, but not my address ☐

(c) The name and address of your organisation **will be** made available to the public (in the Scottish Government library and/or on the Scottish Government web site).

Are you content for your **response** to be made available?

Please tick as appropriate
☒ **Yes** ☐ **No**

(d) We will share your response internally with other Scottish Government policy teams who may be addressing the issues you discuss. They may wish to contact you again in the future, but we require your permission to do so. Are you content for Scottish Government to contact you again in relation to this consultation exercise?

Please tick as appropriate ☒ **Yes** ☐ **No**

Note: If you select to have your response made public it will be screened before being published to remove any defamatory statements and inappropriate language.

Q.4 What area of interest do you represent?

Please tick one

- Central government department ☐
- Charity / voluntary organisation ☐
- Genealogy / family historians ☐
- Funding body ☐
- Government agency ☐
- Higher / further education ☐
- Individual / member of the public ☐
- International organisation ☐
- Local government ☐
- Private / commercial organisation ☐
- Other (*please specify*): …Chartered Professional Body for UK Actuaries

Q.5 What are your or your organisation's main uses of population and socio-demographic data?

Please tick all that apply

Academic/social research	☒
Canvassing	☐
Genealogical or historical research	☐
Funding bids	☐
Marketing research	☒
Policy development	☒
Policy monitoring and evaluation	☐
Resource allocation	☐
Service planning	☐

Other (please specify): Research relating to the pricing, reserving and provision of financial services products such as pensions, health insurance, general insurance and life insurance.

……..

Q.6 What data/information sources do you or your organisation currently use?

Please tick all that apply

Census	☒
Government Surveys	☒
Local Authority data	☒
Health Board data	☒
Education data	☐
Own surveys	☒

Other (please specify): The Continuous Mortality Investigation (CMI) of The Institute and Faculty of Actuaries (IFoA) collects and analyses mortality data in respect of life assurance and pensions policies. Individual members carry out research into mortality (and morbidity) experience using various sources of data.

Section B: User requirements for data

The questions in this section ask you to think about your current population and socio-demographic statistical/information requirements under the following broad themes:

Population
Age
Sex
Marital Status

Household and family structure
Number of Households
Household structure
Relationship of individuals
Marital/civil partnership status

Housing
Tenure of accommodation (and type of landlord)
Type of accommodation
Number of rooms or bedrooms
Accommodation self-contained or not
Second residence

Education
Academic and vocational qualifications

Labour market and socio-economic
Economic activity
National Statistics Socio-Economic Classification (NS-SEC)
Occupation
Income
Industry
Hours worked

Transport
Car ownership/access
Transport to place of work
Transport to place of study

Ethnicity, national identity, religion, language and sexual orientation
Ethnicity and national identity
Religion or belief
Language
Sexual orientation

Health and Community care
Health status
Long-term illness
Disability
Nature of illness or disability
Carer responsibilities

Migration
Intention to stay in the UK
Country of birth
Internal migration
Citizenship (type of passport)
Country of previous residence
Address a year ago

Q.7 What information requirements have **emerged** or **increased** in importance to you or your organisation over the last five years? If possible please also give the reasons for the change in priority and the specific area that the change relates to.

Theme	**Tick all that apply**	**Reasons**
Population	☒	In general, in the information age, there is an increasing demand for earlier and more detailed explanation of all contributing factors to mortality and morbidity experience. As a result, we have answered these questions on the basis that all have increased in importance and none have declined. Population data continues to be key in explaining mortality and morbidity experience and anticipating future changes to mortality and morbidity. From our perspective this continues to be important data to collect. The recent change in the application of the EU Gender Directive to insurance business, which removed the right of companies to vary the price of insurance products by gender as, in the opinion of the EU, the statistical case had not been made to prove that gender was a differentiating factor, confirms the need to collect data on all likely drivers to enable the key drivers to be determined. The changes in population estimates prompted by the 2011 census have caused considerably more attention to be paid to these estimates as they can significantly influence mortality rates and estimates of rates of mortality improvements. The growing need to understand the mortality patterns of the extremely old (90 plus) is driven by the sensitivity of some financial products to the mortality of this group. There are few other sources of high quality data that can be used at these highest ages. Actuaries have been asking for individual year of age population figures at these higher ages for several years. This trend has been driven by the ageing population and the increased significance of insurance products, particularly annuities, to insurers and consumers.
Household and family structure	☐	This information is of value for general insurance in terms of supporting greater understanding and hence being better able to recognise the risk for household and by extension, travel insurance.
Housing	☐	Having a record of the types of housing, age of housing, and where new housing is built is of value.
Education	☐	These factors are less obviously relevant to actuaries but we would be reluctant to stop collecting information that could prove to be so and would stop the relevance being identified.

Labour market and socio-economic	☒	We would view these factors as important differentiators of mortality & morbidity that enable, for example, experience of those with larger pensions to be determined and allowed for in pricing and in reserving sufficient funds. In recent years the UK's financial regulator has become increasingly interested in the potential risks of using mortality improvement assumptions for a subset of the population which have been derived based on the whole of a population. This is called basis risk. As such, considerably more interest has been taken in variations in trends between different socio-economic groups in recent years.
Transport	☒	Third party liability motor insurance is a legal requirement, as a result, statistics showing the extent of vehicle use is valuable. Scotland has displayed different claims patterns in third party claims compared with the rest of the UK. The Third Party Working Party of the Institute and Faculty of Actuaries has used this information to research trends in third party motor insurance claims across the UK.
Ethnicity, identity, religion, language and sexual orientation	☒	These factors can be important differentiators of mortality & morbidity. This data could be important to utilise for research purposes, as long as they are not used to discriminate. In particular, this data would help understand changes in experience for the aggregate population.
Health and Community care	☒	We would view these factors as important differentiators of mortality & morbidity that enable, for example, experience of those with existing health impairments to be determined and allowed for. It would be very important for the assessment of future Health & Care service needs as well as in assisting with the pricing of products (such as permanent health insurance, private medical insurance and Long Term Care provision) to meet such needs. Actuaries have recently been making increased use of the Hospital Episode Statistics for England to refine assumptions for morbidity related products. Whilst these have been used for some considerable time in summary/tabulated format, in recent years, actuaries have been directly analysing the more granular episode-by-episode dataset. This focus has grown because of increasing competitiveness within the marketplace. Insights generated from this analysis have been of interest across the world and have highlighted the value to the UK of having high quality, granular data to support the thought-leadership research arising from the UK. The Institute and Faculty of Actuaries intends to extend this work in the near future to use the linked HES-ONS dataset to perform an epidemiological study in the mortality of paraplegics. This would have been impossible without the granular data being available to researchers.
Migration	☒	These factors could be important differentiators of mortality & morbidity but we would not expect to use them. From a population perspective, this information could be important to utilise as long as it is not used to discriminate. In particular, this data would help understand changes in experience for the aggregate population.
Other	☒	Please note that alongside population estimates, corresponding data on deaths in the population are essential in understanding population mortality rates. Therefore, all comments relating to increasing importance of data above can also be attributed to the corresponding death data. For brevity, we don't repeat this comment throughout this response but do please be aware that wherever we consider population estimates we also mean data on deaths from the population at the same level of granularity.

Q.8 What information requirements have **declined** in importance to you or your organisation over the last five years? If possible please also give the reasons for the change in priority and the specific area that the change relates to.

Theme	**Tick all that apply**	**Reasons**
Population	☐	As per comments in section 7 above, this section has been left blank.
Household and family structure	☐	
Housing	☐	
Education	☐	
Labour market and socio-economic	☐	
Transport	☐	
Ethnicity, identity, religion, language and sexual orientation	☐	
Health and Community care	☐	
Migration	☐	
Other	☐	

Q.9 What would be the impact (including **financial** and **legal**) on you or your organisation if NRS data was not available to support your information requirements under the following themes?

Theme	Tick all that apply	Reasons
Population	☒	These continue to be key drivers of mortality from our perspective and are important to collect. Our answer to Question 7 has drawn attention to the experience of the insurance industry in relation to the EU Gender Directive and it is important that data deficiencies don't lead to similar outcomes elsewhere. One reason why this is important is because data of this type will be needed to prove that age is a significant enough differentiating factor to justify its continued use in insurance business as a rating factor to set premiums. For example, data like this has been used to justify the continued use of age in the light of the EU Age Discrimination Directive. All consumers paying the same for life assurance and pensions regardless of age and sex would not be a desirable outcome as it would result in an increase in overall costs for the service. The CMI data that we collect would enable us to continue to demonstrate this point for the population included in this data but overall population data would be more statistically reliable. Without this data, reliable estimates of population projection would be more difficult. Less reliable estimates will result in greater amounts of capital having to be held by insurers and pension schemes. Holding more capital directly results in a higher cost of insurance products to the consumer.
Household and family structure	☐	
Housing	☒	Building cover insurance is essential for most mortgages. Having a record of the types of housing, age of housing and where new housing is built will be of value. Awareness of the consequences of storms and increasingly, floods will affect the price at which insurance is available. In the case of floods, building of new housing on flood plains could have significant consequences.
Education	☐	
Labour market and socio-economic	☒	These continue to be key drivers of mortality from our perspective and are important to collect. The lack of data makes it more difficult to understand the drivers of overall experience and for organisations to price and reserve appropriately for pension products. The CMI data that we collect would enable us to continue to demonstrate this point for the population included in this data but overall population data would be more statistically reliable. Without this data, reliable estimates of population projection would be more difficult.

Transport	☒	As third party liability motor insurance is a legal requirement, statistics showing the extent of vehicle use is of public benefit. Scotland has displayed different claims patterns in third party claims compared to the rest of the UK.
Ethnicity, identity, religion, language and sexual orientation	☒	Without this data, reliable estimates of population projection would be more difficult.
Health and Community care	☒	These continue to be key drivers of mortality and morbidity from our perspective and are important to collect. The lack of data makes it more difficult to understand the drivers of overall experience and for organisations to price and reserve appropriately for health and care products. Without this data, reliable estimates of population projection and overall heath & care cost/requirements would be more difficult.
Migration	☒	Without this data, reliable estimates of population projection would be more difficult.
Other	☐	

Q.10 What new work, policies or emerging priorities/interests are likely to affect your information requirements over the next five years?

As actuaries seek a greater understanding of mortality and morbidity, the desire is always to have more risk factors linked through to mortality and morbidity outcomes. Our earlier responses talk about various factors which are key predictors of mortality and morbidity outcomes but these should not be considered in isolation. The more we can understand the interactions between, for example: age, socio-economic group, current health status and then future deaths the better our understanding. Better understanding means a fairer price being offered to members of the public purchasing insurance cover.

A particular focus is in understanding mortality by cause and developments in these fields have led to collaboration between IFoA and Sir Harry Burns, the Chief Medical Officer for Scotland. Sir Harry delivered the IFoA Autumn Lecture in October 2011 and ended this with a request to the profession for help in justifying some of the theories he has around mortality and morbidity rates, and how to influence them by medical intervention. A working party of actuaries is currently investigating this.

Q.11 Are there any **alternative data/information sources**, which you think we should investigate for producing population and socio-demographic information? These could be **national, regional** or **local** information data sources.

Population	As previously mentioned, IFoA maintains its own CMI records. These relate to a specific sample of the population (holders of pensions or insurance policies) however, and would not be suitable for this purpose
Household and family structure	
Housing	
Education	
Labour market and socio-economic	
Transport	
Ethnicity, identity, religion, language and sexual orientation	
Health and Community care	
Migration	
Other	

Section C: Key statistical requirements

In looking at possible methods of producing population and socio-demographic information/statistics there are many factors that need to be considered.

Each option that we consider will have its own set of advantages and possible disadvantages to current users of our statistics. These will vary by topic and some possible changes may have a larger impact on the work of particular user groups than others.

The aim of this section of the consultation is to determine the importance of accuracy, frequency, geographic detail of and level of aggregation for each of the main topic areas described earlier.

The current format of the census is such that it:

- produces statistics at high levels of accuracy
- produces statistics at very small geographical areas (including output areas, which contain an average of 100 people)
- outputs are every 10 years
- forms/provides the base data for many secondary statistics

Some methods for producing population and socio-demographic information may offer more frequent results but may result in a reduction in other aspects such as accuracy or geographic detail.

Improvements in one aspect, such as frequency, need to be balanced by any possible reduction in the other key aspects outlined above.

In the following questions we would like you to think about your data requirements, and the level of detail required by you/your organisation to carry out your work or interest area effectively.

Any views expressed here are not binding but the results of this consultation will allow us to evaluate the possible options for producing population and socio-demographic information and to assess the cost/benefits of each one.

Q.12 Please indicate the **minimum frequency** you or your organisation require population and socio-demographic statistics to be made available and indicate the reasons why this level of frequency is needed, including any financial and legal implications if this was not possible:

- More frequently than once a year
- Yearly
- Every two years
- Every five years
- Every ten years
- Less frequently than every ten years

An example response for someone working in housing might be that they need to know the number of dwellings in an area every five years to allow them to model how housing is changing over time.

Theme	**Frequency level**	**Reasons**
Population	Yearly	This enables identification of changes in experience due to trends or shocks in a time-frame that enables allowance to be made in pricing or reserving appropriately. In its absence, experience would be used to validate changes but this would not be as valuable as population-wide data.
Household and family structure		
Housing	Every ten years	This recognises that housing stock does not change materially, year-on-year but up-to-date information is useful in recognising weather and geological risks.
Education		
Labour market and socio-economic	Yearly	This enables identification of changes in experience due to trends or shocks in a time-frame that enables allowance to be made in pricing or reserving appropriately. In its absence, experience would be used to validate changes but this would not be as valuable as population-wide data.
Transport		
Ethnicity, identity, religion, language and sexual orientation	Every 5 Years	Not needed as frequently – this is only used to indicate changes in population mix over time.
Health and Community care	Yearly	This enables identification of changes in experience due to trends or shocks in a time-frame that enables allowance to be made in pricing or reserving appropriately. In its absence, experience would be used to validate changes but this would not be as valuable as population-wide data.
Migration	Every 2 Years	Not needed as frequently – this is only used to indicate changes in population mix over time and to validate population estimates between population censuses.
Other		

Q.13 Please indicate the **minimum geography** you or your organisation require population and socio-demographic statistics to be made available and indicate the reasons why this level of geography is needed, including any financial and legal implications if this was not possible:

- Output area (contains an average of 100 people)
- Data zone level (contains an average of 800 people)
- Postcode level
- Local Authority level
- Health Board level
- Community Health Partnerships
- Electoral ward
- Intermediate geographies (contains 2,500 - 6,000 people)
- Scotland level
- Other (please specify)

An example response for someone working on migration might be that they only need to know the level of migration at a local authority level. This would help them to determine how the population of an area changes over time and to allocate resources accordingly. They may have no requirement to know the level of migration for smaller areas as this is highly variable and could lead to higher inaccuracies.

Theme	**Geographic level**	**Reasons**
Population	Postcode level aspirational but Scotland level ok	Scotland level is what we have used to date but postcode level would provide additional levels of granularity that could be used.
Household and family structure		
Housing	Postcode Level	Provides sufficient level of granularity.
Education		
Labour market and socio-economic	Scotland level	Provides sufficient level of granularity.
Transport	Intermediate geographies	Provides sufficient level of granularity.
Ethnicity, identity, religion, language and sexual orientation	Data zone level	Provides sufficient level of granularity.
Health and Community care	Health Board level aspirational but Scotland level ok	Scotland level is what we have used to date but Health Board level would provide additional granularity that could be used.

Migration	Scotland level	Provides sufficient level of granularity.
Other		

Q.14 Please indicate what **disaggregation** of characteristics you or your organisation require population and socio-demographic statistics to be made available and indicate the reasons why this level of disaggregation is needed, including any financial and legal implications if this was not possible.

An example for someone working with population data is that they only require population by specific age bands, e.g. 0 – 5yrs, 6 – 10 yrs etc and do not require data by individual year.

Theme	**Disaggregation required**	**Reasons**
Population	Individual Years, Sex and Marital Status	Need to be able to use the data to differentiate for each age, sex and marital status category to confirm there is a difference in mortality experience for each year (and status) and enable pricing and reserving at this level of granularity.
Household and family structure		
Housing	Age of property	Important factor in considering insurance cover for housing.
Education		
Labour market and socio-economic	Index of Multiple Deprivation quintile or similar	
Transport		
Ethnicity, identity, religion, language and sexual orientation		
Health and Community care		
Migration		
Other		

Q.15 Please indicate the **minimum level of accuracy** you or your organisation require population and socio-demographic statistics to be made available and indicate the reasons why this level of accuracy is needed, including any financial and legal implications if this was not possible:

- Very high (e.g. 95 % or higher)
- High (e.g. 90% or higher)
- Medium - High (e.g. 80% or higher)
- Medium (less than 80%)

An example response might be that for someone working in housing that they do not need the data to be very accurate at the lower geographies but at local authority level they would need to have a high level of accuracy in the results as this is the level at which funding allocations are calculated.

Another example could be that for someone working in education they need very accurate education statistics every three years to report on the impact of a specific policy/intervention but it would be beneficial if they could have lower accuracy data annually to monitor the impact of the policy/intervention.

The bandings above give an indication of what we mean by the different levels of accuracy.

Theme	**Accuracy level required**	**Reasons**
Population	Very High at Scotland level	Used to determine factors that have financial implications.
Household and family structure		
Housing		
Education		
Labour market and socio-economic	Very High at Scotland level	Used to determine factors that have financial implications.
Transport		
Ethnicity, identity, religion, language and sexual orientation	High at Scotland level	Used to help understand factors that have financial implications.
Health and Community care	Very High at Scotland level	Used to determine factors that have financial implications.
Migration	High at Scotland level	Used to help understand factors that have financial implications.
Other		

Q.16 What is your or your organisation's opinion on the use of a flexible question set, which would possibly allow more targeted socio-demographic questions in specific areas?

For example, a different set of questions could be asked of respondents in urban areas compared to those in rural areas.

Views are also welcome on the possible limitations of this approach.

No particular views on this.

Section D: Final comments

Q.17 If you have any further comments regarding your or your organisations population and socio-demographic statistical/information requirements, please provide details below.

Consistency with statistics produced by the Office of National Statistics for England and Wales is highly valuable to us.

Q.18 If you have any other general comments about this consultation, or the Beyond 2011 Programme more widely, please provide details below.

We would expect to comment on the consultations in England and Wales also.

Please ensure that you have completed as many sections as you believe are relevant to you / your organisation.

Thank you very much for your help.

Results will be published in the Beyond 2011 section of the NRS website after the conclusion of the consultation.

Beyond 2011
National Records of Scotland