
Chair of the UK Statistics Authority, Andrew Dilnot CBE

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Chair, Public Administration Select Committee
House of Commons
LONDON
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Dear Bernard

COMMUNICATING AND PUBLISHING STATISTICS

Further to the Committee's recent call for written evidence on communicating and publishing statistics, the UK Statistics Authority's response is set out below.

I would like to make a few general observations about the importance of effective statistical communication. As I have mentioned in a number of public settings over the past few months, further developing the communication of official statistics across the statistical service is a particular priority for the Statistics Authority and for me as Chair of the Authority. We see improving statistical communication as playing a vital role in securing the maximum value from official statistics.

In October 2010, the Statistics Authority published guidance for government statisticians on the characteristics of a good statistical report, based on the requirements in the *Code of Practice for Official Statistics*. Building on that Statement, we have identified seven themes to focus further work with the statistical service to improve communication. These will be reflected in revised guidance which the Authority will publish shortly:

- *uncertainty* – emphasising that official statistics are estimates rather than absolutes; and the importance of guidance for the user about relevant quality considerations in relation to potential uses of the statistics;
- *trends* – highlighting the rich value of time-series, rather than over-emphasis on month-to-month or point-to-point comparisons of estimates;
- *accessible explanation* – introduced, defined, and clearly explained concepts, so that the user can understand them;
- *international comparisons* – providing comparisons with other countries to frame the UK's situation where appropriate;
- *context* – explaining how statistics relate to our wider economy and society;
- *attribution and causation* – should not be asserted without sufficient statistical evidence, or otherwise in a misleading manner; and
- written outputs should use *plain English* and should meet expected standards for publication.

We understand the direction of the Committee's questions to be about whether official statistics are being communicated well enough to those who will want to use them. This is one of the most important and challenging aspects of the work of official statisticians. The Statistics Authority starts from the perspective that official statistics are collected and managed at public expense and must justify that expenditure by contributing as much as possible to decision-making in all parts of society and the economy. However, official statistics can only do that if those who need to use them know that they exist, can find them when they need them, and can understand their relevance and utility.

The *Code of Practice for Official Statistics* contains several specific requirements to ensure these matters are addressed. In practice, a good proportion of the many recommendations made in the Authority's formal Assessment Reports relate to communicating statistics and supporting users more generally.

The fact that the Authority continues to press for improvements in this area is itself indicative that current standards of communication and accessibility are not as good as we think they need to be. In effect, official statistics are not yet being enabled to do the maximum amount of public good that we would wish to see. Our recent report reviewing the first cycle of the statutory Assessment programme, *Assessment of UK Official Statistics 2009-2012*, discusses the priorities for the future and how the Authority intends to address them. A copy of this report was provided to the Committee recently.

At the most general level, the Authority is actively supporting planning to shift the balance of resources slightly away from data collection and management towards increasing accessibility and communication. This will not be easy to achieve in practice. It is likely to require difficult decisions to reduce data collection activity – at least at the margins – and use the resources saved to make improvements in communication. Users may be reluctant to accept changes which reduce the range of figures available but nonetheless this may well prove, somewhat paradoxically, to be a key step towards ensuring that the users get as much good as possible from the statistical product.

In respect of the Committee's detailed questions, the Authority's response is below. Further operational information in respect of the Office for National Statistics (ONS) and the wider Government Statistical Service (GSS) is provided in the attached Annex.

1. *Practices for the release of official statistics*

While there are many high quality statistical reports published every week, we recognise that there are weaknesses in terms of the consistency, coherence and accessibility in the practices for the release of official statistics. A vast amount of statistical material is published by a large number of official bodies - including some 40 producers of 'National Statistics'. These bodies publish statistics largely autonomously. There is some measure of central co-ordination, shared practice and control, enshrined in advice to government departments from the National Statistician and in the Code of Practice; and in centralised arrangements such as the National Statistics Publication Hub. But from the perspective of the user of official statistics, the impression is still one of differing practice; problems with accessing what is there in the form the user wants; and inconsistency in terms of the provision of explanation and advice. The statistical service itself is doing what it can to address these weaknesses but there are undoubtedly real obstacles. While the decentralised nature of the statistical service does have some real virtues, it also means that each body that produces official statistics is free to operate largely as it wishes in

respect of communicating and publishing official statistics, subject to compliance with the Code of Practice. In addition, the volume and rapid evolution of statistical material being produced is such as to make its integration particularly difficult. For example, a recent Authority review found some 22 producers of official statistics on health topics and a further 21 bodies that were releasing health-related statistical material. Integrating statistical products across that number of bodies would be a significant and welcome undertaking but, in a climate of budgetary reductions, we do not necessarily expect it to be made a high priority.

Pre-release access to official statistics

Under the *Statistics and Registration Service Act 2007*, responsibility for determining arrangements for pre-release access to official statistics rests with Ministers and the UK Parliament in respect of official statistics produced by UK government departments and public bodies, and with Ministers in the respective Devolved Administrations and the devolved legislatures in respect of wholly-devolved official statistics. The relevant Ministers are free to draft secondary legislation on pre-release access as they choose. As a result the maximum period for pre-release access is 24 hours for UK departments' statistics and for statistics produced by the Northern Ireland Executive, and five days in Wales and Scotland.

It is the view of the Authority that current practices for pre-release access to official statistics are unsatisfactory. Large numbers of Ministers, their advisers and officials outside the statistical production chain are routinely receiving privileged pre-release access to large numbers of statistical releases. For example, a review undertaken by the National Statistician's Office during 2011 found that around 140 officials have been granted pre-release access to the *Crime in England and Wales* statistical release. Now that responsibility for the production of this release has been transferred to ONS, the Authority intends to review this. The Department for Education has also provided pre-release access to over 100 people – inside and outside government – to its statistics on Key Stage 2 performance for England; likewise the Home Office in respect of its statistical release on firearm certificates. This is an unacceptable and unjustifiable number in my view, and the Authority would wish to see the numbers reduced as much as possible.

The Authority believes that, under current arrangements, there is a risk that pre-release access may inadvertently be given to non-approved officials. For example, in May 2011 HM Treasury accidentally released market sensitive consumer price index (CPI) data 17 hours prematurely to around 400 people not on the approved pre-release access list, due to what was believed to have been a clerical error. This followed another breach in February 2011 on producer price indices. In December 2011, pre-release access rules were again breached when comments regarding the direction of CPI figures were made at an internal meeting of senior civil servants within the Department of Business, Innovation and Skills. These are matters about which my predecessor wrote to the departments concerned.

As the Authority has previously said to the Committee, we believe that pre-release access has the potential to cause real harm. Providing privileged pre-release access may be seen by others as giving Ministers and their advisers time to consider how best to react to, or possibly distract attention from, a statistical release. There is also a public perception that pre-release access gives time to pressure statisticians to alter releases,

although the Authority has not seen any evidence that this has happened. We also believe that pre-release access can bring the statistical system as a whole into disrepute, reducing public trust in the quality and integrity of statistics.

Although international practices vary considerably, the Authority's Monitoring Report on *Pre-Release Access to Official Statistics* published in March 2010 noted that most advanced countries have sophisticated regimes in place to "control and minimise" pre-release access. The report also noted that the 24 hour period adopted by the UK is "very much at the upper end of the range where specific limits exist". The Authority will prepare for the Committee a note providing an update on current international practice in respect of pre-release access.

In light of these types of issues, the Authority recommends (as outlined in our 2010 report) that the maximum period for pre-release access should be reduced to no more than three hours, with less being the norm. In addition, we recommend that the number of people who are granted pre-release access to official statistics, and the number of statistical releases to which pre-release access applies, both be reduced significantly. We remain dissatisfied with the present arrangements across the UK, and would wish to see the Authority given responsibility for determining them throughout the UK administrations.

2. *Balance between production and communication*

The Authority aims to ensure that official statistics are well explained, including their strengths and weaknesses, leading to better decision-making in the public interest. In a decentralised statistical system, decisions on the appropriate balance between data collection, management and statistical production on the one hand, and the resources devoted to the accessibility and communication of official statistics on the other, are for the department(s) concerned. However, the *Code of Practice for Official Statistics* requires all statistics to be accompanied by commentary that aids communication. Specifically, it requires the main messages from the statistics to be summarised early in the commentary; description of the policy or operational context for the statistics, including any relevant government targets; description of the statistics in neutral language; comparisons over time; avoiding specialist terms and jargon; and explanation of the quality and reliability of the statistics in relation to their potential uses.

As discussed above, the Authority's Assessment programme has highlighted that communicating official statistics and explaining their strengths and weaknesses remains something of a challenge for many producers across the statistical service; and that many producers of official statistics may not yet have achieved the optimal balance between the resources devoted to the production of statistics and their subsequent communication to the user. To this end, the Authority is beginning a programme of work with the statistical service to help to improve the communication of statistics and related advice to users. Earlier this year, I convened a workshop to review how a series of ONS statistical releases could be better communicated to users. In light of that, the Authority has established, on a pilot basis, a 'good practice team' which will assist the statistical service more generally in developing and implementing improvements to current communication practices.

ONS is currently working to improve theme and topic pages on the ONS website to achieve a broader audience appeal. Interactive visualisations, engaging statistical

commentary, and improved signposting, navigation and search functionality are being added to the website to seek to attract and engage more users.

Future of the National Statistics Publication Hub

The UK National Statistics Publication Hub was established in April 2008 as a central part of the launch of the UK Statistics Authority. During the passage of the legislation in advance of the 2007 Act coming into force, the concept of a Publication Hub received a good deal of parliamentary support. The Hub provides a 'one-stop-shop' for all National Statistics and some official statistics releases, to maximise the accessibility of the statistics to users. Users do not need to know the producing department of the statistical releases they are looking for since the Hub provides a central place from which they are all linked. Crucially, the Hub ensures that links to statistical releases are clearly separated from any ministerial statements, thereby ensuring that the user accesses statistical releases without being potentially biased by political comment put alongside.

ONS and the wider GSS are working with the Government Digital Service in respect of investigating how best also to provide access to official statistics on the new single Government domain (www.gov.uk). The Hub will continue to be maintained until this exploratory work has concluded. At that point, a decision will be made in respect of any further development of the Hub that might be necessary. The independence of the preparation and uploading of statistical content, sufficiently separate from ministerial and policy comment, are important considerations which the Authority will require reassurance about, alongside the maintenance of strict controls on pre-release access in advance of publication.

3. *Commenting on the use and misuse of statistics*

The Statistics Authority reviews concerns about the use or misuse of official statistics raised by external parties or concerns raised from within the Authority itself. Where official statistics are leaked before publication, where statistics are used in such a way as to mislead public debate, or where the advice of a government statistician has been ignored, the Authority will investigate and publish its findings. As I noted during my oral evidence to the Committee in September, we would also investigate any suggestion that Parliament had been misled on a statistical matter.

A range of interactions and interventions are available to the Authority, from discussions with the parties concerned to broader, public interventions. As an independent body with a statutory objective to serve the public good, the Authority operates transparently and openly. Reports and correspondence relating to our interventions and findings are published on the Authority's website for all to see. Being willing to comment openly on cases where official statistics may have been used in a potentially misleading way is an important part of the Authority's monitoring work as provided for in section 8 of the 2007 Act.

4. *User requirements in respect of communication and publication*

The *Code of Practice for Official Statistics* puts particular emphasis on the need for producers of official statistics to take the requirements of users into account. The Code also requires producers to "publicise official statistics in ways that enable users to identify and access information relevant to their needs [and] make access to official statistics as straightforward as possible" and for official statistics to be accompanied by "commentary

and analysis that aid interpretation".

The Authority's Assessment programme has systematically required evidence from bodies that produce official statistics that they are researching and documenting user needs and compiling evidence that user needs are being met.

The National Statistician regularly meets statistical Heads of Profession and representatives of the Statistics User Forum to discuss issues of common interest, and these discussions include departmental statistical communication and publication strategies.

The Authority fully recognises the importance of producer departments releasing official statistics in a range of publication types and data formats that reflect current user needs, and accommodating future user requirements. Further information is provided in the attached Annex.

Statistics Authority engagement with users

The Statistics Authority is committed to engaging with the user community to understand its requirements. The *Code of Practice for Official Statistics* identifies meeting user needs as its first principle, noting "the production, management and dissemination of official statistics should meet the requirements of informed decision-making by government, public services, business, researchers and the public". In this area, the Code of Practice is both consistent with, and places added emphasis on, the relevant principles set out in the United Nations Fundamental Principles of Official Statistics and the European Statistics Code of Practice.

The Authority's Monitoring Report on *Strengthening User Engagement*, published in June 2010, noted that the statistical service had taken important steps in strengthening its engagement with users, including dialogue with various user groups and in improving online access to official statistics. We also highlighted several areas for improvement, including the navigability of official statistics on the internet, consultation with experts to exploit digitised data more effectively, and to enhance the accessibility of official statistics and related advice; and encouraging further communication between statisticians and journalists, including opportunities for training and other engagement opportunities.

The Authority continues to support ongoing initiatives for improving user engagement, including the Royal Statistical Society's (RSS) *StatsUserNet* user engagement portal, active support for Statistics User Forum conferences and other user-focused meetings, and through the funding of a secondment to the RSS to manage the Society's user engagement work.

5. Trends in and limitations of official statistics

As set out above, the Authority's Assessment programme found that more could be done across the statistical service to communicate statistics and their limitations to users. The Authority is continuing to work with representatives from across departments to ensure that official statistics are well explained to users.

Communicating significant trends is an important part of this process. With many statistics, currently there appears to be a tendency to place too much of a commentary focus on the latest figure released. Focusing on the latest figure in this way may

unnecessarily confuse or distract the user from a more important longer-term trend and the wider statistical message. The Authority is, therefore, working alongside the statistical service, the broader analytic community, and the media to improve understanding of the importance of communicating longer-term statistical trends. Further information is provided in the attached Annex.

6. *Responding to ad-hoc requests for data*

The Authority believes that all ad-hoc requests for data should be dealt with in an open and transparent manner. We support the Government's Open Data initiative and want to see all statistical material (that is not disclosive of confidential information) readily available in the public domain. We are aware that practice varies across the GSS, where some departments (e.g. Department for Work and Pensions and the Ministry of Justice) publish a range of their ad-hoc statistical analyses, whereas others do not do so routinely. ONS practice in handling ad-hoc requests for unpublished analyses was the subject of discussion by the Board of the Authority earlier this year. The Board instructed ONS to ensure that responses to ad-hoc requests from the media and other bodies engaged in public debate should be made available on the ONS website at the time the data and analysis is released. While the Board asked ONS to make the publishing of responses to ad-hoc requests from the media a priority, alongside responses where the data might be of high-profile interest to others, the Board also asked ONS to consider how *all* responses to ad-hoc requests could best be made available in a cost-effective and accessible way for the benefit of all users. ONS has undertaken to maintain a published list of all analyses provided on an ad-hoc basis and to make those freely available on request. The National Statistician is also preparing related guidance for the wider GSS. Further information is provided in the attached Annex.

7. *The internet and the publication strategy for official statistics*

The Authority recognises the importance of embracing opportunities afforded by the internet in disseminating official statistics. As we set out in our Monitoring Report on *Strengthening User Engagement*, improvements in analytical tools, visualisation software and database design, supported by increasingly fast internet connections, facilitate the presentation of statistics in ways that were once unimaginable and that offer the potential for users to extract additional value from them. For example, interactive population pyramids on the ONS website enable users to understand readily the changing population structure of the UK; and the Neighbourhood Statistics website pulls together a range of detailed statistics on a variety of topics within specific geographical areas, adding to the value of each of these sources when considered in isolation. We would not wish to see these kinds of developments as the exception rather than the norm. Producers of official statistics should strive to present statistics in ways that capture users' interest and improve their understanding. Further information is provided in the attached Annex.

I and my colleagues would be pleased to elaborate further on these or any other matters as the Committee would like.

Yours sincerely



Andrew Dilnot CBE

Annex: Further operational information

This Annex provides operational information in respect of the Office for National Statistics (ONS) and wider Government Statistical Service (GSS).

4. User requirements in respect of communication and publication

ONS staff regularly hold press briefings for major ONS releases, and undertake a significant number of broadcast and radio interviews. There are also a number of education and awareness events which are held, designed to meet user requirements. For example, ONS routinely arranges public seminars on aspects of labour market and economic statistics to appeal both to specialist and non-specialist audiences, and ONS will shortly hold a workshop to discuss the relationship between economic productivity and labour market data in the context of the current economic climate.

The GSS Presentation and Dissemination Committee is continuing to support departments in improving the communication and publication of their data, and related advice and commentary. The Committee, supported by the National Statistician's Office, has established a network of 'commentary champions' in a number of departments and will soon, alongside the 'good practice team', further develop the champions' network and produce a 'resource kit' to ensure they are well supported. The 'good practice team' is also producing guidance with examples of good practice for wider dissemination across the GSS. The National Statistician's Office will continue to review departmental statistical releases and will hold workshops with departments to help continue to raise standards of communication in statistical releases, and to share findings and examples of good practice.

Accessibility of websites

Official statistics are disseminated via a range of digital platforms, including the UK National Statistics Publication Hub, the ONS website, the Neighbourhood Statistics website, the local-area labour market statistics site *Nomis*, departmental websites, and www.data.gov.uk.

The Publication Hub provides free access to all National Statistics produced across the statistical service, with 2.25 million visits in the last year. A survey of users, carried out in Spring 2011, identified that 66 percent of respondents were able to find what they were looking for on the Hub. Anecdotal evidence suggests that those 34 percent who did not find what they were looking for on the Hub may have been searching for datasets currently held on departmental websites, looking for statistics that are not currently collected, or for data not otherwise published. Since the 2011 survey, enhancements have been carried out on the Hub to improve the user experience, including improved search and sorting functionality, updated contact information for enquirers, and additional statistical material on relevant European statistics.

ONS launched a new website in August 2011. This programme of work involved the re-engineering of the website's underlying architecture. Initial feedback from users was disappointing, due to difficulties with searching and navigating the new site. ONS took action by launching a website recovery project, expanding ONS's publishing support services and identifying a series of enhancements that would be required to tackle the outstanding issues. These have resulted in a reduction in negative user feedback. The increasing use of data visualisation tools on the website has led to an increase in

syndication, significantly expanding the reach of ONS data. This involves other websites picking up and reusing what ONS publishes. For example, a snapshot of one week in July 2012 showed that while 10 percent of views of the '100 years' animation of Census data were via the ONS website; the remaining 90 percent were via the BBC (mainly) and the Daily Telegraph websites. Further functional enhancements to the ONS website are in progress, including the development of an Application Programming Interface (API) to allow machine-to-machine access to data, and a new 'Data Explorer' facility to allow users to customise large datasets and to download them according to their individual requirements.

Formats for releasing official statistics

ONS continues to publish its official statistics in a wide variety of formats. These range from statistical releases; longer articles and discussion papers on, for example, statistical methodology or setting official statistics in a wider policy or historical context; media releases; shorter website theme and topic pages; to podcasts and social media alerts designed to supplement statistical releases published on the ONS website. In the year to September 2012, ONS published 303 statistical bulletins, 268 supporting datasets, 177 compendia (annual, quarterly, or monthly) publications, 99 longer articles and discussion papers, 81 news releases and 56 podcasts, alongside over 800 other guidance notes.

All ONS statistical releases are published in .html as well as .pdf format to ensure accessibility and to encourage re-use. ONS undertakes periodic reviews of the ways in which its official statistics are disseminated and released, to seek to reflect the changing needs of users. In a recent audit exercise, around 55 percent of statistical releases on the ONS website met the 3-star open data re-usability standard, and ONS is seeking to maximise the amount of data released to the higher 4- and 5-star advanced data linkage formats as soon as possible

ONS regularly contributes to various international publications comparing, for example, the situation of the UK with other EU member states, produced by Eurostat, the statistical agency of the European Commission; and likewise publications produced by other international organisations such as the Organisation for Economic Cooperation and Development.

ONS is currently in the process of establishing a new Analysis and Dissemination directorate within which digital publishing and stakeholder/external communications activity will be located. The digital publishing team is developing ONS's long-term dissemination strategy to review all ONS statistical products and to investigate the possibilities for partnership working to develop further ONS's portfolio of digital content. This team will bring together designers, developers, analysts and communications expertise in a multi-disciplinary setting.

Engagement with users

ONS recognises the importance of improving its own user engagement activity, and is currently undertaking a programme of work to disseminate ONS statistics and analysis in more user-friendly and accessible ways. A meeting of ONS staff with a special interest in user engagement is held quarterly to share good practice and to take user engagement forward within ONS. Best practice guidelines have recently been produced and circulated to all ONS directorates. ONS obtains annual formal feedback from key government departments and agencies to assess how well ONS is meeting their needs as users of

ONS data. ONS publishes a summary of these assessments in its annual report. Work on user engagement is also underway across the GSS, including working with the RSS and other parties to produce case studies of good user engagement and a good practice guide, alongside seeking to maximise additional departmental engagement with users, particularly via the RSS's *StatsUserNet* forum.

5. Trends in and limitations of official statistics

ONS continues to make progress in this area. For example, in the most recent ONS statistical release on Retail Sales, a longer-term time-series was added to provide further analysis of the underlying pattern within retail sales. Similarly, further context around international migration data has been added to the Migration Statistics Quarterly Report published by ONS, alongside a 'migration timeline' as an interactive product to demonstrate recent migration trends within the context of the last five decades. The timeline also shows other, relevant key statistics such as the unemployment rate, percentage change in gross domestic product, the mid-year population estimate and any other historical events that may have impacted on migration patterns. Migration data in published spreadsheets have also been enhanced during 2012. New functionality was added to charts to enable users to quickly identify migration trends relevant to specific groups of migrants.

Across the GSS there is an ongoing programme of work to make improvements to the explanation of patterns in time-series. Some recent examples of further development include, the Health and Social Care Information Centre's release on prescriptions dispensed in the community which includes much wider explanation of the context in which prescribing has increased; commentary about livestock patterns and trends in agricultural land use in the Scottish Government's agricultural census; the Department for Business, Innovation and Skills release on trade union membership which provides a long time series back to 1892 and analysis of various factors involved in the change in membership rates over time; and the Forestry Commission's release on woodlands which includes a longer time-series and explains the significant changes in new woodland planting in relation to various initiatives such as changes in tax benefits and the introduction of Rural Development Contracts.

6. Responding to ad-hoc requests for data

ONS routinely receives a large number of requests for data. Since June 2012, ONS received over 500 ad-hoc requests for data, alongside a number of requests for data made under the Freedom of Information (FOI) Act. These requests are made by a broad range of users, including government, the media, researchers, businesses, and the general public.

In June 2012, ONS developed a new policy on responding to ad-hoc requests for data. Under this policy, all ad-hoc requests are published on the ONS website, providing equal access to all in line with the principles of the *Code of Practice for Official Statistics*. Responses to ad-hoc requests are either published in full on the ONS website, or listed in summary form where interested parties may contact ONS to be sent the data direct. Responses published in full on the website include requests from the media or other users that are likely to lead to onward publication of the data or otherwise where the data might be seen as being of high-profile interest, alongside responses to FOI requests for data and requests for large datasets. Other responses to ad-hoc requests continue to be listed on the ONS website and are made available to users on request.

The GSS is undertaking similar work designed to improve accessibility to responses to ad-hoc requests for data. Effective engagement between producers and users of official statistics enables producers to be made aware of the needs of users in respect of access to data which are not routinely made available. These opportunities can allow producers to plan more effectively and to consider the benefits of revising their portfolio of regular statistical outputs. The National Statistician is also currently updating her guidance on identifying official statistics to include advice to producers on this issue. The updated guidance will be published shortly.

Department for Work and Pensions statisticians have established a page on the Department's website to provide links to additional statistical analyses that are not included in their portfolio of regular publications. This includes previously unpublished statistics, management information, or statistical analyses used in ministerial statements or in briefings to the media and others which could be potentially high profile or otherwise attract media interest. Ministry of Justice (MoJ) statisticians have also developed a similar page to host the publication of statistical information released by MoJ in response to ad-hoc requests. In line with the principles of the *Code of Practice for Official Statistics*, the Authority expects all other departments not currently doing so to do likewise, and where this does not happen the Authority would regard the matter as a breach of the Code.

ONS continues to make available unit record information to approved researchers under the *Statistics and Registration Service Act*, either in anonymised form or under controlled conditions through:

- the Virtual Micro data Laboratory (VML), an on-site research access facility. Data available includes business datasets from ONS surveys on e-Commerce, Foreign Direct Investment, Products of the European Community (PRODCOM), monthly output data, the Annual Survey of Hours and Earnings, and Consumer and Producer Prices; additionally, social survey datasets on Labour Force Survey, Annual Population Survey, Living Costs and Food Survey, and the Longitudinal Study.
- the UK Data Archive, hosted by the University of Essex. This makes anonymised social survey unit record data available including data from the Annual Population Survey, English Housing Survey, General Lifestyle Survey, and Labour Force Survey, as well as a disclosure controlled samples of data from the 2001 Census. These data are restricted via user registration and access agreement schemes; and,
- the Secure Data Service (SDS), an academic facility hosted at the UK Data Archive. ONS continues to work closely with the SDS and deposits some of the data from the VML for use within the SDS by approved researchers under controlled arrangements.

These services enable accredited academics and researchers to use advanced statistical techniques to extract further value from the data and to apply them to relevant research and public policy questions. There are currently around 2,000 approved researchers who have been accredited formally against strict criteria.

7. The internet and the publication strategy for official statistics

The GSS, led by the National Statistician, is currently preparing a Presentation and Dissemination Strategy, to further develop departmental dissemination of official statistics

through the internet, social media, and mobile devices. The strategy will draw on a range of dissemination initiatives from across the statistical service, including better use of email notification and other alerting tools tailored to individual users' interests; further development of user-driven tabulation in place of pre-prepared, standardised reports; and greater availability of interactive data visualisation and other innovative dissemination tools.

ONS is continuing to develop new theme and topic pages on the ONS website, featuring headline stories and 'info-graphics', as well as optimising the ONS website for mobile devices and developing more digital content for promotion via both social media and the ONS website itself. In addition, ONS is developing more customisation features to enable users to access only the content they are interested in, through the use of 'RSS feeds' and online alert services to enable users to choose which subjects they want to receive alerts about at the point at which data are published.

In 2007, ONS was the first National Statistical Institute to establish a dedicated data visualisation team with a clear remit to exploit emerging web technology to improve the way official statistics are disseminated on the internet. This has become a centre of excellence, recognised both within the UK and abroad. The team has developed a portfolio of over 30 interactive and animated products. All data visualisations are made available in a single location on the ONS website, grouped by theme. They cover a wide range of visualisations from 'storytelling', where ONS analysts provide visual narratives (e.g. the history of the Census), through to data exploration, where users can explore patterns in big datasets visually (e.g. income estimates).

The data visualisation team has also worked proactively to support a number of UK government departments and statistical offices around the world in allowing them to re-use graphical data visualisation technology developed at, and by, ONS. The ONS data visualisation team won the Royal Statistical Society's 2010 award for statistical excellence, and was also shortlisted for the Civil Service awards in 2010. The team is currently working with emerging technologies (e.g. HTML5) to support the dissemination of statistical content on the next generation of mobile devices. The first output from this work was an interactive map of internal migration, designed for use on a range of mobile devices and standard technology, alongside new functionality that enables users to share statistical content and data visualisations on social media.