

M&A Note 2/2010
2 March 2010

Findings of the 2009 Assessment Programme

1 Introduction and summary

Under the provisions of the *Statistics and Registration Service Act 2007*¹, the UK Statistics Authority has a statutory function to assess sets of statistics against the Code of Practice for Official Statistics², with a view to determining whether it is appropriate for the statistics to be designated, or to retain their designation, as National Statistics. Each Assessment is published in an Assessment report³. Several hundred sets of statistics already have National Statistics designation, by virtue of the legislation, and each of these will be subject to formal assessment in the period 2009-2012.

Designation as National Statistics means that the statistics are deemed to be compliant with the Code. Compliance may be broadly interpreted to mean that the statistics meet identified user needs; are produced, managed and disseminated to high standards; and are well explained. It also signifies that the Statistics Authority judges the statistics to be readily accessible, produced according to sound methods, and managed impartially and objectively in the public interest.

Whilst the Office for National Statistics (ONS) is the largest single producer of official statistics and responsible for central coordination of the statistical system, there are some 200 or more public bodies in the UK that produce some official statistics, and the Assessment reports relate to the work of many distinct producer organisations. It is a statutory requirement that the producer organisation shall ensure that those statistics designated as National Statistics continue to be produced, managed and disseminated in compliance with the Code.

This Note summarises the findings from the assessments published in 2009: 27 reports in total, covering around 80 sets of statistics. This Note highlights examples of good practice, along with some examples of weaker compliance and identifies three main areas for future development. The Statistics Authority expects to publish an updated Note twice a year.

Summary of strengths and weaknesses

The Statistics Authority introduced the Code of Practice for Official Statistics, after public consultation, in January 2009. The Code was explicitly designed to set a challenging standard across all aspects of the production and publication of official statistics; in some respects above the status quo. It thus incorporated some pressure for continuing development and it was not therefore surprising that none of the sets of statistics that were covered in the first 27 Assessment reports were found to be Code compliant in every respect. However, the degree of compliance was in each case sufficient for a conditional designation as National Statistics to be given, meaning that designation was subject to certain further steps (called 'Requirements'⁴) being taken. As at February 2010, the Authority Board had confirmed designation of ten sets of statistics.

¹ http://www.opsi.gov.uk/ACTS/acts2007/ukpga_20070018_en_1

² <http://www.statisticsauthority.gov.uk/assessment/code-of-practice/code-of-practice-for-official-statistics.pdf>

³ <http://www.statisticsauthority.gov.uk/assessment/assessment-reports/index.html>

⁴ A 'Requirement' is a formal recommendation in an Assessment Report

Whilst the degree of compliance with the main principles of the Code was generally good, this varied from one principle to another. Compliance with those parts of the Code relating to user needs and user engagement (Principle 1 and Protocol 1), and Principle 8 (frankness and accessibility), along with Protocol 2 (release practices) was weakest, reflecting the fact that the new Code introduced more challenging standards in these areas than previously. Compliance with the other principles, particularly Principle 3 (integrity), Principle 6 (proportionate burden) and Principle 7 (resources) was strongest.

The term ‘user’ of statistics is here employed to mean any organisation or person whose decisions or actions are beneficially influenced by official statistics; and similarly ‘potential user’ is anyone who might be so influenced. This need not mean that the user directly inspects statistics or performs calculations. It may be more a matter of being influenced by messages derived from the statistics – for example, if crime statistics suggest that thefts of mobile phones are increasingly common, steps to prevent such thefts are deemed to be a use of statistics; and such uses create their own demand for statistical data to be available in particular forms and levels of detail. This interpretation is central to the Code.

Figure 1 shows the aggregate proportion of Code practices⁵ that were complied with in the first 27 assessment reports as a whole. Whilst this illustrates the extent of Code compliance, it should be noted that it, in effect, attributes equal weight to each practice. In reality, users of statistics might regard some practices as more essential than others, for example those relating to the explanation of the quality and reliability of the statistics.

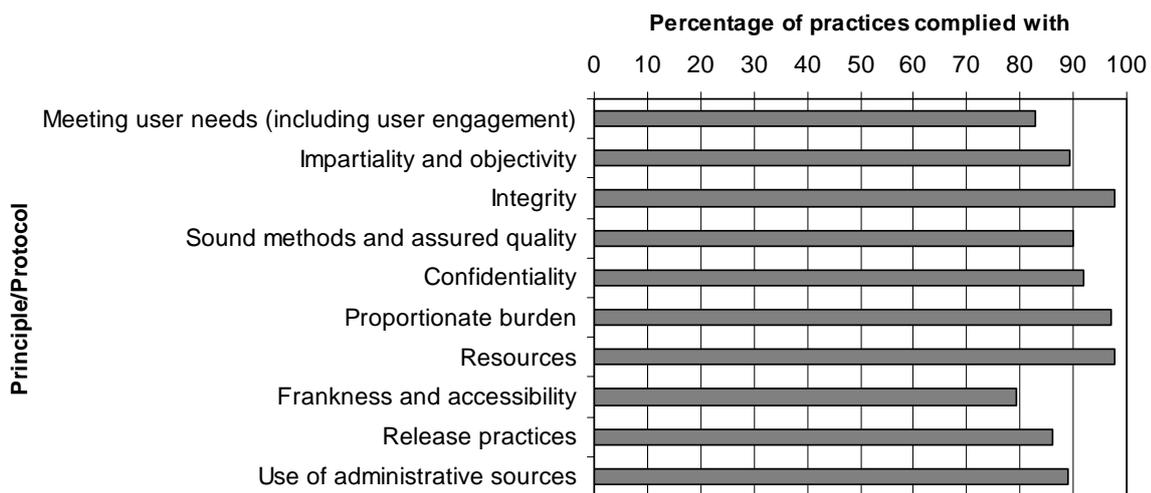


Figure 1: Percentage of practices complied with, by Principle and Protocol

Figure 2 shows the distribution of Requirements made in the first 27 reports, classified by the Principle or Protocol against which each was reported.

⁵ A practice is a specific element of the Code. There are 74 practices in total. The percentages in this chart are based on the 27 reports together.

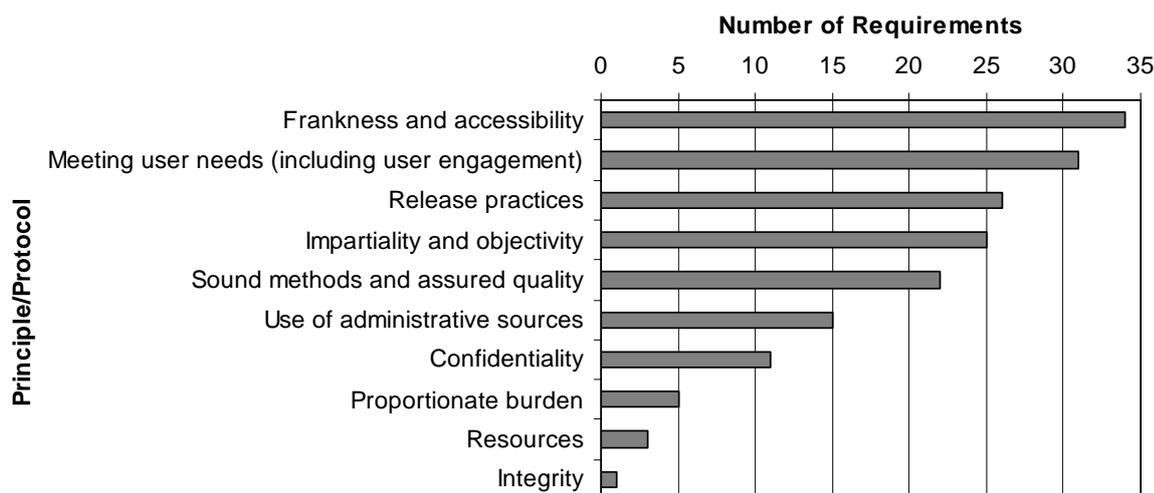


Figure 2: Number of requirements, by principle and protocol

The Assessment team identified three broad areas on which it recommends that all statistical producers should focus in 2010-11.

- I. Bearing in mind that statistics only realise their full potential when they are used in ways that serve the public interest, it would enhance value for money if there were more systematic engagement with those organisations and individuals whose decisions, or actions, are informed by official statistics. In particular, engagement with users, and potential users, outside government would help producers to understand both the nature of that use and how best to support it. Central government users tend to be well placed to make their needs known and ensure they are met, so the greatest return on further development is likely to come from supporting the wide diversity of beneficial uses of official statistics outside central government.
- II. In the context of supporting the effective use of statistics, it would be beneficial to explain the statistics more fully, including trends over time and geographical patterns. Enhancing the narrative (commentary) accompanying statistics will help the user understand and make effective use of the data. That commentary needs to include appropriate details about the context in which the statistics are produced, the main features, and above all, their known limitations. The Code requires that 'information on the quality and reliability of statistics in relation to the range of potential uses' should be published alongside the statistics themselves. It would be helpful if producer organisations were to review their outputs ahead of the formal Assessment process to ensure compliance with this and related Code requirements.
- III. The Code requires a range of background documents to be published by each producer organisation. Publishing such documents makes a wide range of information readily available, thereby increasing transparency and demonstrating the openness, integrity and trustworthiness of those aspects of the statistical production process. Most of the information needed for these documents should already exist in some form, and hence publishing them should be relatively straightforward and we recommend that any gaps in documentation be addressed ahead of formal Assessment reports.

Feedback on the Assessment process

Feedback on the Assessment process from statisticians employed in bodies that produce official statistics has been mixed. Some statisticians have commended the process, others found it unhelpful and overly negative. This is the first time that their work has been subject to systematic public assessment and the standards against which judgements are made in Assessment reports are often new or subject to revised interpretation. There have been calls for more emphasis to be placed on positive aspects of what is currently done and less on pointing out the scope for improvements.

The Assessment process is still evolving and the scope to highlight good practice more will be explored further. However, the process is one of ensuring compliance with a formal Code. Compliance and the associated designation and use of the National Statistics label are intended to be strong positive endorsements in themselves. The Statistics Authority takes the view that achieving that endorsement should properly involve a degree of challenge and pressure for continuing improvement. We believe the statistical service is more worthy of public confidence, and international and professional respect, precisely because it is subject to a testing external regime of assessment.

The remainder of this Note is structured as follows:

- **Section 2** outlines the findings from these assessments for each of the Code's Principles and Protocols.
- **Section 3** provides additional information relating to the assessment of experimental statistics, compendium publications and new statistical outputs.

2 Assessment findings

Principle 1 and Protocol 1: Meeting user needs and User engagement

The Code of Practice for Official Statistics increases the emphasis on the role of the user, and the need for statistical producers to consider the wider use that is – or may be – made of statistics. In addition to meeting specific policy needs within government, there is increasing demand by people working in research, academia, business, policy think-tanks, and from the wider public, for statistics on many aspects of social and economic life. Statistics must, of course, be as accurate and reliable as they reasonably can be, and free from political interference. In addition, they must also be planned to meet the future needs of society, and communicated in ways that are as helpful as possible to those who rely on them to inform their decisions.

The Statistics Authority recognises that the needs of the users of statistics, now and in the future, should be central to the standards set for producers of official statistics. Principle 1 encapsulates the need to engage effectively with users in order to maximise the public value derived from the considerable investment in official statistical activity.

The first assessments found considerable evidence of producers engaging effectively with users within government. Examples of good practice in doing so included:

- working groups and technical/advisory groups;
- seminars and presentations; and
- a range of other meetings.

Example: The National Treatment Agency for Substance Misuse (NTA) has a series of regional meetings about its statistics from the National Drug Treatment Monitoring System, and a Project Assurance Team to engage with government users. NTA meets with its main stakeholders each year to review the scope and content of the annual statistical report.

However, we found that producers often knew less about the users or use made of their statistics beyond their own organisation. Effective engagement with users, and therefore compliance with the Code, may be achieved through many different means – for example, meetings, seminars, newsletters, consultations, internet feedback, and the use of tear-off slips in publications. The important element is that the engagement is effective in identifying the needs of users, and proportionate to the importance of the statistics under consideration, in order that the producer can understand and consider how best to meet those needs.

Example: The Scottish Government's *ScotStat* network is an example of a producer seeking to engage effectively with a range of users. The network, for users and providers of Scottish official statistics, aims to improve communication among those interested in particular statistics and to facilitate the establishment of working groups on specific statistical issues.

We acknowledge that it may take some time for statistical producers to become fully engaged with a wide range of users, and to identify new users. We would be content, at this stage, with producers making, and publishing, 'reasonable' assumptions about uses and potential uses – which users can then comment upon themselves.

Similarly, the commentary accompanying statistics rarely says much about the use made of the statistics, and the strengths and weaknesses of the figures in relation to those uses. We think that this is relatively easy to do at a general level, and should be possible for producers to address as part of enhancing their understanding about how their statistics are, and might be, used.

Example: A brief statement about users and uses is made by the Scottish Government, which has published a list of uses of its Scottish Health Survey⁶. This statement includes details of the

⁶ <http://www.scotland.gov.uk/Topics/Statistics/Browse/Health/scottish-health-survey/uses>

types of uses – monitoring trends, assessing long-term impacts of health policies, teaching, research, data linkage for further analysis – along with the users and links to further information.

The main starting point in implementing the practice 'Investigate and document the needs of users of official statistics, the use made of existing statistics and the types of decisions they inform' is to set out the types of uses made of the set of statistics. These include:

- policy formulation, monitoring and evaluation;
- resource allocation;
- targeted operational interventions;
- commercial investment, pricing, marketing, location decisions;
- focusing voluntary action;
- informed choice; and
- academic/research analysis.

Producers should also know who is making these types of decisions, at what level (for example, national or local) and how frequently (regularly or just occasionally). From an assessment perspective we are interested in examples of actual use, with names of bodies, committees, units, people – case studies – that illustrate this.

The Code also requires producers to understand and summarise the requirements of users in relation to the quality of the statistics, given their decision making needs. Producers should also provide information about significant unmet needs – either relating to the statistical information itself, or to aspects of quality. They should also provide any plans to meet these needs, or the reasons why they remain unmet, together with the implications for particular users.

Principles 2 and 3, and Protocol 2: Impartiality and objectivity, Integrity, and Release practices

Statistical producers had dealt effectively with pressures that might influence the production or presentation of statistics, and had robust procedures in place to ensure integrity.

Example: The Department for International Development (DfID) had previously removed the National Statistics status from its ODA:GNI ratio for non-statistical reasons. The Secretary of State for international development has written to us to confirm that DfID now complies with the requirements of this principle.

Statistical producers who complied well with aspects of the Code relating to release practices took the following steps. They:

- published timetables in advance;
- ensured that all statistics were available through the National Statistics Publication Hub;
- had reviewed their pre-release access lists and these and other pre-release access details were easily available through their website; and
- named the responsible statistician on the statistical release.

Principle 4: Sound methods and assured quality

We found that the methods used in the production of the statistics we assessed were generally sound, and in a few cases we made Requirements to strengthen these.

Example: Reported Road Casualty Statistics produced by the Department for Transport (DfT), provide a good example of improvements made to methods and documentation following assessment. The existing statistics are based on a police data reporting system, which leads to under-reporting of road casualties. Alternative sources of data confirm the under-reporting. Following the assessment of those statistics, DfT has now set out its best estimate of the total number of road casualties based on the National Travel Survey, and other sources. These are

published alongside the statistics based on the police reporting system. DfT has also provided a wide range of additional contextual information about these statistics.

The standard of documentation about methods varied. We are looking for evidence that methods are described in an accessible manner for the intended users. This may range from simple explanations of concepts for non-expert users, through to detailed documentation of sources, methods and databases for expert users. The required level of documentation needs to be determined in conjunction with users, bearing in mind potential users, and the likely needs of unknown, new users of the statistics.

Example: The documentation about methods for the ONS's Average Weekly Earnings (AWE) was comprehensive. This included reports from external consultants about methods. The AWE was produced in parallel with the existing Average Earnings Index so that users could compare the effects of the different methods.

Many statistics were accompanied by good documentation about their quality. The Code does not set down absolute levels of quality – statistics that are fit-for-purpose for one user, or for one purpose, may be less fit for another. The Code requires producers to ensure that statistics are of a level of quality that meets users' needs, and to explain the quality of published statistics in terms of the quality dimensions agreed by the European Statistical System: relevance, accuracy, timeliness and punctuality, accessibility and clarity, comparability, and coherence. The presentation of quality measures may therefore range from the quantification of sampling errors, through to higher-level indications of the usefulness of estimates in relation to different uses.

Example: The NHS Information Centre's publication about National Child Measurement Programme statistics contained information about confidence intervals and participation rates, and the impact that different participation rates could have on the statistics. The statistics were helpfully colour-coded based on different degrees of quality, to make this information accessible to users.

The publication of quality measures was generally not as wide-ranging as that implied by the European Statistical System's definition of quality. Sampling errors are often relatively simple to measure and present for survey estimates. Non-sampling errors, such as coverage errors, measurement errors and processing errors – which relate to statistics produced from surveys, censuses and administrative data alike – are often more difficult to measure, but may be at least as important as sampling errors. Producers should ensure that the whole range of potential errors is considered when presenting information about quality. In the absence of quantified information, we would be content with a basic description of the types of biases that may exist in statistics, their likelihood, and an indication of their magnitude – together with evidence of plans to improve users understanding of their potential impact on the figures. This will help users to be able to understand the strengths and limitations of the statistics more clearly.

Principle 5: Confidentiality

We found that procedures for maintaining the confidentiality of statistical data were generally effective. Some of the arrangements were not public, and we required several producer bodies to publish their confidentiality arrangements. We think that it should be fairly straightforward to do so, and that it is an important step in reassuring data providers and others of the appropriate protection of the confidentiality of data.

Many producers had ensured that employees' contracts of employment covered confidentiality statements. The template declaration included in the National Statistician's guidance on confidentiality of official statistics⁷ is an alternative way of meeting practice 2 in Principle 5.

Principles 6 and 7, and Protocol 3: Proportionate burden, resources and the use of administrative sources

⁷ <http://www.statisticsauthority.gov.uk/national-statistician/guidance/confidentiality-of-official-statistics.pdf>

The Code requires producers to measure the burden on data suppliers (in a way that does not itself impose an unnecessary burden on those suppliers) in order to ensure that the burden is proportionate to the statistics being produced. Some producers, however, had not reported the costs relating to surveys. We think that this should be relatively straightforward to estimate at a high level, and that it is an important element of ensuring that the production of statistics is not unduly burdensome on those providing data.

Example: Statisticians at the Department of Energy and Climate Change (DECC) have been actively involved in developing data collection systems. The Downstream Oil Reporting System and the Petroleum Production Reporting System are secure systems through which oil and petroleum suppliers can provide their data. DECC statisticians were involved to ensure that the data were suitable for statistical purposes, thereby avoiding unnecessary burden on suppliers.

Although the Code only requires estimates of the burden imposed by surveys to be published, we think that it is good practice to understand and report the costs of all data collections. Again, the effort in measuring this should be proportionate to the value of the information collected.

In most cases we considered that the allocation of resources to the production of statistics was appropriate, although we had concerns that the level of resource might be too low in relation to some sets of statistics.

Many statistics are produced from administrative data – data that are collected primarily for managing some government process. In general, the systems for managing those data are not designed with statistics in mind. However, the data have great potential for the production of statistics, largely because their completeness means that useful statistics may be produced even for detailed geographical areas, or for detailed categorical breakdowns.

The Code requires producers to ensure that administrative sources may be fully exploited for statistical purposes. This requires them to work proactively to maximise the benefits that may accrue from developing the use of administrative systems that they either currently use, or may use in the future. Protocol 3 of the Code, therefore, applies to all statistical producers, whether or not they use administrative data sources.

From an assessment perspective, we have seen producer bodies trying to document their broad strategies for dealing with data from administrative sources, and how they engage with the owners of those data systems. We will progressively expect to see more detail, such as that specified in practice 5 of Protocol 3, in order to be satisfied that administrative data sources can be fully exploited for statistical purposes.

Example: The Department for Children, Schools and Families (DCSF) has taken positive steps to exploit existing data sources related to looked-after children by creating links between different datasets. At the time of the assessment, DCSF was involved in two data-matching projects to make better use of existing data sources on looked-after children in England. It aimed to link data collected in the new Children in Need Census to replace the data collection on the ethnicity of looked after children. It is also developing a link between the Outcome Indicator data and the National Pupil Database. This matched data source will provide information to replace part of the data collection for the Outcome Indicators without altering the information it is able to publish. DCSF told us that it also hopes to improve the information on comparisons between looked-after children and their peers.

Principle 8: Frankness and accessibility

The Code requires statistics to be accompanied by commentary to aid their interpretation. The characteristics of helpful commentary include that:

- the main messages be summarised, early in the commentary;
- it describes the policy or operational context for the statistics, including any targets that the statistics are used to measure progress against;

- it describes the statistics in neutral language, and where appropriate, shows a balance of 'positive' and 'negative' points;
- comparisons over time be presented relative to a baseline that is chosen for statistical reasons;
- it avoids specialist terms and jargon in order to make it accessible to non-expert readers; and
- it explains to the user the ways that the statistics can be used, and any limitations.

Example: The NHS Information Centre's statistics on the National Child Measurement Programme included good quality commentary. This included a summary, a description of the main points, and a range of accompanying charts and maps to illustrate some of the most important messages from the data.

We identified some cases where data were released with no accompanying commentary. The Assessment team recognised that some of these statistics are of a specialist nature, but considered that a short commentary, drawing attention to the main trends, would improve accessibility for the non-expert user.

In addition to commentary about the statistics themselves, the Code requires that 'information on the quality and reliability of statistics in relation to the range of potential uses' should be published. Some information about quality is published (although more is needed as discussed under principle 4 above). However, this should be further developed to describe the quality of the statistics, methods, procedures and classifications in the context of the range of potential uses of them. As above, we do not require that detailed quantitative measures are provided; rather that some information is given to enable potential users to evaluate the extent to which they can use the statistics.

Some weaknesses in the standard of presentation of charts and tables became apparent in these early assessments, and we think that these should be relatively straightforward to address. The presentation of statistics was the subject of a Statistics Commission report in 2008⁸. The Statistics Authority supplemented this in January 2009 with an M&A Note⁹ which outlined a range of criteria to help producers to consider the quality of the presentation of their statistics. In addition, although it is a little outdated in places, the principles set out in Plain Figures¹⁰ remain relevant:

- charts should present their message simply and unambiguously;
- data in tables should be rounded and presented appropriately; and
- tables and charts should be easy to interpret.

The accessibility of statistics, and information about statistics, is a central theme of the Code. Most statistics are available now on departmental websites and through the National Statistics Publication Hub. However, users have repeatedly pointed out to us that information, whilst available in plentiful supply, is often difficult to locate on websites. The accessibility of ONS's statistics on its website is seen as particularly problematic.

In addition to statistics being available through the National Statistics Publication Hub, we expect producer bodies to provide clear links from the statistical release to the following information:

- how the statistics are produced;
- how often the statistics are revised;
- a list of those who have had pre-release access to the statistics; and
- contact information.

⁸ <http://www.statscom.org.uk/uploads/files/reports/Releasing%20Official%20Statistics%20final.pdf>

⁹ <http://www.statisticsauthority.gov.uk/assessment/monitoring-and-assessment-notes/monitoring---assessment-note-2-2009.pdf>

¹⁰ Chapman, M and Wykes, C., *Plain Figures* (2nd edition), HMSO (1996)

In addition, departments should provide clear links from their statistics home page (or equivalent) to the following information:

- timetable of National Statistics releases over the coming year;
- confidentiality statement/policy under which National Statistics are produced;
- section of website for reports on any identified errors in National Statistics;
- section of website for reports on any areas where the production of National Statistics is exempt from the Code or where the Code has not been applied properly (breaches); and
- lists and contact points for user groups.

3 Additional information

Experimental statistics

Principle 4, practice 5 of the Code states that the publication of experimental statistics is a helpful part of continuous improvement. During 2009, we assessed three such experimental statistics from ONS. Two are mentioned here – the Average Weekly Earning (AWE - mentioned earlier in this Note) and Wealth in Great Britain.

The AWE was developed as a replacement for the Average Earnings Index (AEI). Users of the AEI were engaged in the development of AWE, which also included at least one external review of the methods underpinning the statistics. The process of developing the output, and documenting that development, provided much of the evidence needed for the assessment.

Similarly, the Wealth in Great Britain output was developed over time, taking into account users' needs. An interim report was produced from the first wave of the survey, and this provided a good opportunity for users and producers to reflect on the publication of real data in developing the final product.

Compendium publications

Some of the early assessments were of compendium publications, for example Agriculture UK and Statistics on International Development. The nature of an assessment of a compendium is slightly different from that of a single output.

Assessments of compendium publications against the Code relate to the processes involved in preparing the publication, rather than in producing the statistics that are included. Those sets of statistics will normally be subject to separate assessment. Designation of a compendium publication as National Statistics therefore means that the producer body has, for example: identified and met user needs in terms of the content of the publication; considered the appropriateness of each series for inclusion; and written appropriate commentary.

We have included such a description in reports of assessments of compendium publications, for the sake of clarity.

Assessment of new statistical outputs

Sometimes it is appropriate to assess statistical outputs before their first publication, as with Wealth in Great Britain published by ONS (Assessment report 17). However, some practices in the Code relate to the presentation of statistics – for example, the frankness of commentary about the statistics, and the way that their presentation meets users' needs. Such elements may be difficult to assess against the Code before the first publication of the statistics. Drafts of reports under development will sometimes be available for reference; but sometimes not.

New statistical outputs will be designated as National Statistics when the evidence available at the time of the assessment is sufficient to enable us to infer that the environment in which the statistics are produced is consistent with the Code, and that the statistics will, in our judgement, themselves meet the Code's requirements. The following standard paragraphs will be used in relevant assessment reports.

'In accordance with section 12 of the *Statistics and Registration Service Act 2007*, this assessment report has been prepared before the set of statistics to which it relates has been published for the first time. Because of that, it has not been possible to assess compliance with all aspects of the Code of Practice for Official Statistics: for example, we have not been able fully to establish the views of users.

However, we regard the evidence available as sufficient to conclude that the environment in which the statistics are produced is consistent with the Code, and that the statistics meet most requirements of the Code. On this basis we are content that this set of statistics should be

designated as National Statistics. We will consider compliance with the outstanding aspects of the Code as soon as possible and amend the report if necessary.'