

## APPLYING THE TEST OF PRACTICAL UTILITY

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The United Nations Fundamental Principles state that “*official statistics that meet the test of practical utility are to be compiled and made available*”. In the United Kingdom we have sought to establish, through the Code of Practice and new statutory arrangements, a framework within which *practical utility* can be addressed in a more systematic way and by so doing ensure that official statistics serve the public good.

To apply a test of utility (or ‘usefulness’) to particular sets of statistics we must ask searching questions about the use that is actually made of them and about their potential use. If we do not have sound evidence of the usefulness of what we produce, we may struggle to justify public expenditure on, and future investment in, statistical work.

As well as looking for evidence of use and usefulness it is implicit that we should be seeking to use this information to help to tailor statistical outputs to maximise use, and thus maximise the public benefit of the statistical service. But doing so requires obstacles to be overcome and tensions to be resolved.

Different national statistical offices will need, because of different history and culture, to take different approaches to these matters but there may be common requirements as well. Are we confident that good practice in this regard is being identified and shared between national systems? Might there be more scope to share practice on researching the use of statistics, tailoring outputs to maximise use, overcoming obstacles, and dealing with tensions?

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### 1. Utility or relevance

A dictionary defines *utility* as ‘the state of being useful, profitable, or beneficial’. It is a useful word. The value locked up in official statistics is only released when they are used in ways that benefit society. The planning, production and publication of official statistics are only the preliminary stages in delivering value. There is a vital step that follows these – helping decision-makers use the statistics in ways that deliver benefit. The role of statisticians and national statistical offices must extend to understanding and facilitating use of the statistics in order to maximise the public benefit. And also in order that they can demonstrate publicly the contribution of statistical work in delivering that benefit. However, seeking to understand and respond more fully to user needs can create tensions with other obligations on statistical offices and this paper also looks at the need to manage these tensions.

Under the heading *Relevance*, the European Statistics Code of Practice says *European Statistics must meet the needs of user, and processes are in place to consult users, monitor the*

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*relevance and practical utility of existing statistics*. In national legislation and codes it is common for the focus to be on the *relevance* of official statistics. However, the concept of relevance may be too accommodating. All statistics are relevant to something, if only the subject to which they relate. And *relevance* runs the risk of being interpreted as relevance to the development of government policy alone, which is much too narrow a definition of the public interest. This paper follows the language of the first of the UN Principles which refers instead to *the test of practical utility*. That test is more exacting; but it is also more tractable and more informative.

Practical utility, or 'usefulness', is not directly defined in the UN Principles but it might be interpreted like this: "do we have good reason to suppose that the statistics and statistical services we are planning to provide are capable of being used in ways that are of benefit to society". In practice, 'benefit to society' is achieved primarily when statistics are used to inform and influence decisions that, in turn, make society a better place for its citizens.

In times of economic pressures and constraint on public expenditure, the benefit of statistics to society needs to be documented and demonstrated persuasively. This not only supports a rational approach to testing and promoting the usefulness of statistics, it serves to defend and support the statistical office against ill-informed budgetary pressures.

### **1.1. A principle ignored**

It will be clear to any observer of official statistics that the scope of official statistics is commonly determined in ways other than objective consideration of utility or public benefit. In most national statistical offices, the scope of official statistics in 2010 will be the same as in 2009, plus or minus some changes driven mainly by the allocation of resources from central government funds and by the wishes of the government of the day; these two levers being closely related in most countries.

If, for example, the government introduces new targets for public healthcare, it may commission, and be happy to pay for, some new statistical data to show progress against those targets. It will not stop to ask whether those new statistical products are the ones that deliver the greatest benefit for society as a whole.

However, there are also many day-to-day decisions about the format, content and frequency of statistical reports and other products that need to be taken; and here there is greater potential to take a balanced view of society's needs – and of the utility of each product. Statistics on healthcare may be needed by central government only on an annual basis, and in highly aggregated form. But healthcare managers, local politicians and the public may find it of value to have those statistics more frequently and for smaller geographical areas; not least to hold the government to account for the local impact of national policies. The statistical office can, and often will, take account of those other needs when considering the more detailed aspects of the statistical service. In that sense, a focus on utility is still achievable even where other forces tend to drive the main statistical agenda.

### **1.2. Documenting use**

Ideally we should be looking for *evidence* that statistics, and related services, are in fact used to inform decisions that, in turn, benefit society. This is, in any case, a reasonable interpretation of the European Code requirement to '*monitor the ..practical utility of existing statistics*'. Of course, we cannot expect statistical offices to produce comprehensive lists of decisions influenced by statistics, or to seek to estimate how much influence statistics have

had on any particular decision. This is not an accounting process. The decision to build a hospital in a particular place will be influenced by demographic and other statistics but it is unlikely ever to be knowable how much influence those statistics had on the final decision.

What we can do more readily is illustrate effectively and persuasively the use of particular sets of official statistics, both within government and more generally in society. This is not so difficult and can provide a most valuable resource for managers.

Whilst good examples of documentation relating to the use of official statistics, particularly outside government, are hard to find, here is one from a 2007 report from the United Kingdom<sup>2</sup>.

### 1.3. Case Study: PowerGen

“Powergen is a large power and gas company. It is one of the UK's largest energy suppliers, the second largest electricity generator and owns the second largest distribution network. It is governed by a board of directors.

The Customer Insight Team uses many official statistics (eg Census data, Expenditure and Food Survey data, Department for Work and Pensions benefit claimant information, Index of Multiple Deprivation) along with commercial and internal data sources.

The data are used to monitor customer profitability and to model customer credit risk to the company. Census data on unemployment and morbidity are combined with internal data on energy consumption to indicate areas where people are at home because of unemployment (temporary state) and areas where people are at home because of long term limiting illness (more permanent state). The latter constitute more of a credit risk as ability to pay might be more limited. Such information is used to monitor trends to inform business decisions.

Another use by Powergen is in relation to internal research carried out to target the ‘fuel poor’, to encourage their take up of energy efficiency measures (eg loft insulation). The research combines internal data (eg number of customers, individual energy consumption, comparative neighbourhood consumption data and past energy efficiency take up) with commercial and official sources (eg Census for information on central heating (amongst others), Index of Multiple Deprivation, benefits claimants and income estimate data). This found that take-up of promotional energy efficiency measures was weighted towards rural and/or more prosperous areas. The research provides a basis for trying to identify disadvantaged households where take up is low but need might be high.”

This example illustrates the power of effective documentation. If a national office had a library of hundreds, potentially thousands, of such illustrations it would find it much easier to have a meaningful discussion about the relative value of different streams of work and about

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<sup>2</sup> from the *The Use Made of Official Statistics*, 2007

<http://www.statscom.org.uk/uploads/files/reports/Report%2033%20Use%20Made%20March%2007.pdf>

its priorities for the future. Decisions on future plans would be informed by a much deeper understanding of current benefits and needs. However, viewed historically, national statistical agencies appear to have devoted little capacity to such documentation and it is perhaps worth reflecting on why this might be so.

#### **1.4 Inhibitions - history, anxiety and resources**

Some of the reasons for a lack of attention to the use of statistics might be found in the shared history of official statistics. For most the 19<sup>th</sup> and 20<sup>th</sup> Centuries, official statistics were driven not by any systematic analysis of the public interest but rather by what was possible and affordable. Each set of statistics would have had at least one intended purpose; but because there was little flexibility in terms of the product to be produced, the views of the potential users (other than the ones who commissioned the work) could make little difference.

The world has now changed, and changed dramatically. Technology has transformed the speed and flexibility with which statistical data can be generated and disseminated, particularly from administrative sources. It is now increasingly possible to provide statistical services that are closely tailored to the needs of users. But perhaps because of past inflexibility, statisticians do not, for the most part, share a tradition or culture of taking great interest in what happens to the product of their work.

There may also be other inhibiting factors at work. Are the experts within national statistical offices perhaps a little uncomfortable with exposing to public scrutiny their understanding of the use made of the statistics they produce? Users of statistics will be quick to point out any inaccurate statement or assumption about how the statistics are used in practice. That, of course, is itself a good argument for being open about the assumptions being made. A wrong assumption will not go unchallenged for long and that in turn will lead to better understanding and, one would hope, more useful statistical outputs in time.

Perhaps one other inhibition relates to an assumption that because there are so many and diverse users of statistics that it is unrealistic to try to understand the use they make of the statistics. There is a fallacy here. Many users does not necessarily imply many uses. How many uses are there for, say, crime statistics? We can point to management of the police service; crime prevention; assessment of risk of victimisation; use as an indicator of relative deprivation or need; use in criminological research ... but the list soon runs out. Viewed in broad terms it is not so difficult to address use directly.

## **2. The tension with impartiality**

There is however one inhibition that can present deeper problems. Statisticians are, rightly, acutely concerned to protect their reputation for impartiality. Unlike concern about utility, impartiality has long been the cornerstone of professional statistical practice. The professional statistician seeks to inform debate and decisions, not to take part in them. The statistician must understand public debate in order to provide relevant data but does not seek to have personal influence – except in bringing objective statistical data and analysis to the attention of all parties equally. All statisticians are comfortable with that philosophy. However, statistical offices may fear that steps they might take to enhance the utility of their products will be seen as compromising their impartiality, or as running the risk of compromising it.

A statistical office that is seeking to give greater weight to practical utility will want to devote more attention to understanding the needs of users of statistics, and to enhancing the services it provides. This greater engagement may have many benefits but may also increase the risk of some group of users gaining disproportionate influence over the statistical product, or creating the suspicion that this has happened.

The challenge the statistical office faces is real and problematic. Utility demands close attention, and responsiveness, to the needs of users - including necessarily the needs of those users with strong political agendas, both in government and outside it. In contrast, impartiality demands a degree of insensitivity to political agendas, so that the statistical office is not seen to be led by a particular political view. Similarly, utility demands alertness to the impact of the statistics on public debate; whilst impartiality demands a degree of blindness to the impact of the statistics, so that the statistical office is not seen to be driven by a desire to influence the debate. This tension must be recognised and addressed.

The need to consider utility and impartiality together is neatly summed up in the first of the UN Principles:

*Official statistics provide an indispensable element in the information system of a democratic society, serving the Government, the economy and the public with data about the economic, demographic, social and environmental situation. To this end, official statistics that meet **the test of practical utility** are to be compiled and made available on **an impartial basis** by official statistical agencies to honor citizens' entitlement to public information.* (author's emphasis)

Practical utility is thus identified as the pivotal concept in defining the appropriate scope of official statistics. And it is also clearly central in determining the *nature* of the service to be delivered by statistical agencies, both national and international; in particular it creates an obligation to design statistical products to maximise their usefulness. The principle says, in effect, that if the statistical products are valuable to government or society, and if their provision is affordable and cost-effective, then they should be produced in an impartial way.

Whilst acknowledging the tensions to which reference has been made above, we can nonetheless argue that the relationship between impartiality and utility can be a positive one. It is self-evident that statistics that are not trusted as impartial will be of lesser utility than those that are trusted (if only because the user will be reluctant to rely on statistical products that are not trusted) and, in that sense, impartiality is a prerequisite for utility. There is also a case for arguing that utility is a prerequisite for impartiality: a body that produces statistics of little public value will open itself to questions about its motivation, professionalism and impartiality.

However, despite this mutual dependence and synergy, the relationship is often problematic. There is a need to find ways to ensure that the pursuit of one does not impede the other. Processes to manage the tensions need to be developed. In the UK case, the new statutory framework for official statistics has created a particular focus on both utility and the management of the consequent tensions; and the new UK Statistics Authority looks likely to have a central role to play.

## **2.1 The challenge in a decentralised statistical service**

Ensuring a coherent approach to these issues is challenging and all the more so when the statistical service is dispersed across many government bodies. In the case of the United

Kingdom where the production of official statistics is shared by in excess of 200 agencies, some of which are small units working within large and substantially autonomous government bodies, there is an added level of complexity in trying to ensure that decisions about statistical services take account of the practical benefit to society.

The UK Statistics Authority's early work on public benefit suggests that the statistical service needs to focus not so much on providing ever-more statistics but on users' needs in terms of accessibility, the clear communication of messages from the statistics, honest advice about their strengths and limitations, and adequate metadata to enable secondary analysis. These are all achievable aims. But such improvements may not always be welcomed within the government environment. A decision that might be taken by a statistical unit - perhaps to include more detailed commentary on the figures, highlighting important messages - may not be seen as helpful by the government body within which that statistical unit works.

There can thus be an added pressure to put a narrow interpretation on utility and a greater inhibition about making changes in a decentralised system. The UK's new statutory framework for official statistics, introduced under the Statistics and Registration Service Act 2007, seeks to correct that imbalance by have a strong Code of Practice that places substantial emphasis on the identification and documentation of user needs; and includes a formal 'Assessment' process to ensure that the Code is being implemented. The Statistics Authority is required to publish a report on the Code-compliance of each of several hundred sets of statistics that are labelled 'National Statistics'<sup>3</sup> and this mechanism is proving a powerful way to ensure that the Code is closely and consistently observed. The effectiveness of this process is enhanced by the close oversight of a high-profile Parliamentary Committee, the Public Administration Select Committee of the UK House of Commons; and by the creation of a statutory office-holder, the Head of Assessment, who is accountable directly to the eight non-executive members of the Statistics Authority and, through them, to Parliament. The Head of Assessment sits on the Board of the UK Statistics Authority alongside the National Statistician.

These developments are not without controversy. For example, one new requirement of the Code of Practice is that bodies that produce official statistics should comment on the strengths and weaknesses of the statistics in relation to their potential uses. This requirement has prompted concerns that it might be seen to put impartiality at risk. The statistician who wants to say, for example, that the positive trend in a set of statistics is not necessarily good economic news since the series is not a good measure of economic growth, may fear being accused of acting from a political motive. That anxiety will be more acute if the statistician works within the economic ministry rather than in a national statistical office.

## **2.2. Case Study: the role of the Statistics Authority**

An example illustrates the part that the Statistics Authority has played in dealing with such controversy. In early 2009, a Parliamentary committee considered whether the Office for National Statistics should have taken more account of the political impact of releasing statistics relating to the country of birth and nationality of workers in employment. This issue touched on matters of both impartiality and utility.

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<sup>3</sup> These reports are now being published: see <http://www.statisticsauthority.gov.uk/assessment/current-assessments/index.html>

A government minister had claimed that the content and timing of a particular statistical release on numbers of foreign workers was likely to stir up public anxiety and so undermine the steps the government was taking to promote a measured and considered approach to immigration. Concerned about this, the minister had made some strong public comments suggesting that the actions of ONS were either 'naïve or sinister'. This theme was picked up by commentators in the national press who suggested that aspects of how the release was written, and how it was published, might lead people to think that ONS was seeking to support the anti-immigration lobby.

The UK Statistics Authority assessed the statistical release against the Code of Practice and presented evidence to the Parliamentary committee. Among the messages that came out of the investigations were:

- Statistical offices only need to be alert to the likely political impact of what they publish to the extent of identifying the need to explain, possibly more fully than usual, what the statistics are and their quality and reliability in relation to their likely uses.
- The release must be neither politically motivated nor politically inhibited (lacking in useful content for fear of causing offence to a particular political interest), and in that sense it must be 'blind' to its impact on matters of public debate. In the case in question, the release was judged to be impartial but not sufficiently helpful to the reader, leaving ONS vulnerable to the accusation that it was supporting people who wished to mislead public debate.
- The timing of statistical releases which are seen to be politically sensitive must be pre-announced and not subject to unexpected, or unexplained, changes. In the case in question, the timing of the release was brought forward for valid reasons, but the effect was to raise suspicions of inappropriate motives.
- It is essential to explain the statistics in a way that will be helpful to the user. This will often require an explanation that acknowledges the likely use of the statistics – in the case in question, it was likely that the trends in the statistics of UK foreign workers would be used as a proxy for trends in the numbers of migrant workers from the new European Union member states. The statistical release could have explained the several reasons why such an interpretation would not be valid.

Many statistical offices already recognise the importance of an approach that is consistent over time, from one release to the next in the series, but this consistency is sometimes achieved in an unsatisfactory way, by offering very little commentary on the statistics; and in particular saying very little about the strengths and weaknesses of the figures in relation to their potential uses. This may help to defend the statistical office's reputation for impartiality but it offers little help to the user. In effect, the statistical office treats the avoidance of criticism as being a greater imperative than obtaining the maximum benefit from the statistics for society.

### **2.3 Towards a framework for promoting utility**

National legislation and codes all stress the importance both of impartiality and of ensuring that official statistics meet user needs. But these codes do not usually offer any criteria by which statistical offices should *determine*, or seek to *enhance*, practical utility; nor who

should specify those criteria, nor any explicit tests to determine whether the criteria are being met.

The UK Code of Practice for Official Statistics<sup>4</sup> takes some steps in this direction. Among the 74 specific requirements of the Code are these:

- Investigate and document the needs of users of official statistics, the use made of existing statistics and the types of decisions they inform.
- Make users aware of how they can find the information they need.
- Adopt systematic planning arrangements, including transparent priority setting, that reflect the obligation to serve the public good.
- Publish information about users' experiences of statistical services....
- Issue statistical reports separately from any other statement or comment about the figures ...
- Consult users before making changes that affect statistics..or publications
- Provide information on the quality and reliability of statistics in relation to the range of potential uses...
- Prepare and disseminate commentary and analysis that aid interpretation, and provide factual information about the policy or operational context of official statistics.

These are challenging requirements but do not amount to a direct test of utility; and the UK Statistics Authority does not sit in judgement on how well the test of utility has been met. However, the requirements of the Code, along with the public reporting of Assessments, and the oversight role of Parliament, all contribute to creating a framework within which the producer bodies themselves can make better informed judgement about the public benefit flowing from sets of statistics and the Statistics Authority can monitor and report on how well they are doing that.

## **2.4 The international dimension**

In the UK case, the independent oversight and public reporting role of the Statistics Authority will be central in ensuring that the statistical service can pursue utility without jeopardising its reputation for impartiality. Other national statistical systems will need to take different paths. The approach in each case will depend not just on current structures and legislation but on history, tradition and culture.

However, there are some elements that may be relevant in all countries and consideration might usefully be given to the mechanisms for sharing good practice in relation to matters such as:

- How best to research the use actually made of official statistics (and their potential usefulness)
- New ways to adapt statistical outputs to maximise their use
- How to overcome obstacles and inhibitions to focusing on use
- How best to manage the tension between promoting use and defending a reputation for impartiality – and in this context, the important role that statistical councils can play in offering independent assurance about actions and motives.

This paper assumes that no country in the world has currently fully resolved these challenges. That may a false assumption and the author would be very pleased to be corrected.

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<sup>4</sup> <http://www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html>