UK Statistics Authority

Delivering better statistics for better decisions

Why we need new legislation for better access to data

Foreword

In October 2014, the UK Statistics Authority published its five-year strategy for the UK statistical service entitled *Better Statistics, Better Decisions*. In my introduction, I said that we are on the verge of - if not in the midst of - a 'data revolution', and that the UK Statistics Authority, the Office of National Statistics as our executive arm, and the wider Government Statistical Service, need to change radically in order to keep up. We need help from government and Parliament to help us make these important changes, and to give professional statisticians access to the sources of data needed to produce the statistics that decision-makers and citizens expect for them to make better, more well-informed decisions.

If our governments and parliaments are to make better, well-informed and timely decisions – decisions based on the very best available data, evidence and statistical analysis – they need better quality statistics and better statistical research that draws on a much wider and richer array of sources. For decades, this evidence base has traditionally been underpinned by large-scale, costly and complex social and economic surveys of people and businesses, including the traditional ten-yearly Census which is now over 200 years old. These sources and methods have served us well. Public trust in ONS remains very high and decision-makers continue to rely on an extensive range of statistics produced by ONS and the wider statistical service in government. However, it is getting harder to provide the quality and quantity of statistical data which modern policy-makers need and expect.

What are modern policy and decision-makers looking for? They want us to make better use of data, much of which is already held on behalf of the citizen within government departments and public bodies, but also within rich datasets held within the private sector. They want insights drawn from what these datasets tell us when used in combination to shed light on what is happening in our communities and cities across the country, or in different sectors of the economy. They want to see professional and objective statistical analysis now – in real time – rather than months or even years after the event.

At the same time, citizens and businesses want reassurance that their data will be kept safe and used only to serve the public good and not for private gain. We need a step change in the sharing of data within and beyond government for the purposes of producing official statistics about our society and economy; but we must reassure the public and businesses that their data will be used legally, ethically, and safely.

The UK Statistics Authority believes that the time has come for Parliament to consider what it can do to help our statistical service to collect and analyse the information needed for decision-makers to take better decisions on behalf of us all.

If we are to make the maximum use of the 'data revolution', we need a fundamental shift from the current situation where our professional statisticians can only access many of the data sources held across government with very specific (and limited) consent following a lengthy and complex parliamentary procedure; to one where sources of data can be accessed and linked together easily, with all the necessary safeguards, to produce the aggregate official statistics about our population, society and economy that decision-makers so urgently need.

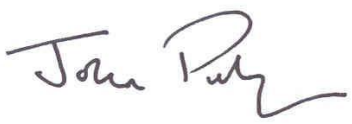
The Statistics and Registration Service Act ensures that the Office for National Statistics – the UK's national statistical institute – only collects and analyses confidential data for statistical and research purposes, never for operational reasons. This must not change. Operational matters are for the providers of public services in central and local government, and associated public bodies, not for ONS. ONS has a sound record of maintaining the confidentiality of data and the privacy of the citizen. The UK Statistics Authority is well-placed to be the guardian of any new arrangements for data access and the sharing of data for the purposes of producing statistics and statistical research which Parliament could, and should, propose.

Better access to sources of data has an important additional benefit which must not be ignored. Giving statisticians access to different sources of data could relieve the burden on those who have to complete surveys, whether they are individuals or businesses. We should 'collect once, and use often'. The predecessor Government agreed that the next Census, in 2021, should be digital by default. It also set out its ambition that censuses after 2021 will be conducted using other sources of data and providing more timely statistical information, subject to dual running being able to sufficiently validate the feasibility of that approach. If we are to achieve that goal, we need new legislation to give statisticians access to the existing sources of data, enabling us to reduce the data collection burden on citizens. Similarly, giving professional statisticians access to data held within the private-sector for the purposes of producing our business and economic statistics, will reduce the burden on businesses from time-consuming and expensive surveys.

The UK Government has developed proposals to make the improvements necessary to modernise the UK's data infrastructure, keep data secure, and improve the government's use of data in the design and delivery of services. Legislation around the use of data has grown piecemeal and is hampering these improvements. On 29 February, the Government published a consultation paper *Better Use of Data in Government* which set out the full range of proposals for new legislation, including proposals for new legislation to improve the ways in which we collect, produce and disseminate National and official statistics. Comments and views are sought from as wide a range of people as possible about the range of proposals being made, by 22 April. Details of how to provide views are available on page 3 of the Government's consultation paper.

The UK Statistics Authority and wider statistical service does not want new statutory powers for the sake of it. We need new powers to deliver our contribution to the 'data revolution' which decision-makers across government and the private sector are asking for. Better decisions should be made with better statistics. Better statistics require Parliament to consider legislation to give professional statisticians greater access to the sources of data already held across government departments, other public bodies, and the private-sector so we can provide much-needed statistical insight into the current state of our society and economy, for better decision-making, and so we are equipped to play our part in ensuring the 'data revolution' is a success.

If the UK is to succeed in the competitive global marketplace, and if our governments are to make good choices affecting all our lives, they need to be well informed. Better statistics support better decisions. Statistics will be better if they mobilise the power of the data revolution. To do so requires a modern legal framework that enables us to deliver statistics that serve the public good in ways that sustain public trust and business confidence.

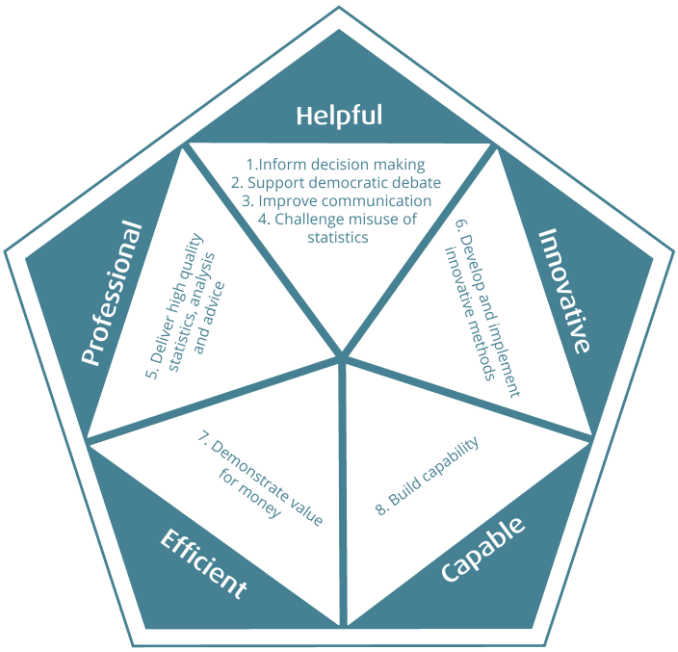


John Pullinger
National Statistician and Chief Executive, UK Statistics Authority
1 March 2016

Objectives for change

Current legislation provides a framework for the provision of National and other official statistics that serve the public good. Decision-makers are increasingly frustrated that better statistics and research cannot be generated on a wide range of topics ranging from the economy to immigration. Existing legislation needs updating to enable access to the data required to inform decision-making.

In October 2014, the UK Statistics Authority published its five-year strategy for the UK statistical service, *Better Statistics, Better Decisions*, to be helpful, professional, innovative, efficient and capable in its service to users of official statistics in Government and beyond who are working in an era of the 'data revolution'.[1] New powers of access to, and insight from, the sources of data are needed to produce the official statistics that decision-makers and citizens expect to enable and empower them to take better, more timely and well-informed decisions about our constantly changing society and economy.



Across Government there is an increased drive and support for the need to share data for statistical and research purposes to meet the challenges of modern public administration, and to inform better evidence-based policy-making. Current legislation makes these needs nearly impossible to meet because it requires the National Statistician to seek permission from Parliament to access each individual dataset needed for statistical purposes through what is a lengthy and restrictive procedure. As a result, decision-makers in Government, Parliament, and the wider public and private sectors, are often forced to make decisions using a statistical evidence-base which could be much improved.

The current need for respondents – individuals, households and businesses – to complete surveys – voluntary or compulsory – often supplying information already held elsewhere across Government, imposes a significant administrative burden both on data providers and data collectors. By allowing the National Statistician a right to access data held elsewhere across government and beyond will significantly reduce the administrative and financial burden on the statistical service and the millions of respondents to its surveys each year, in keeping with the data

[1] https://www.statisticsauthority.gov.uk/archive/news/uk-statistics-authority-statement-of-strategy-2015-2020-better-statistics-better-decisions.pdf

management principle of 'collect once, use many times'. These data sources, particularly when they are linked and matched with data from other sources, can provide a rich and flexible source of statistical evidence about how our society, population, economy and businesses are changing. Restricting such access limits the professional statistician's ability to add objective insight to this important evidence-base.

CASE STUDY: International student migration – improving the evidence base

The latest estimates from ONS's International Passenger Survey (year ending September 2015) show that just under one-third (165,000) of all inward migrants to the UK (557,000) reported they were entering the UK to study for a period of 12 months or more. In that same period, the survey shows that 57,000 international student migrants, who had entered the UK in previous years, left the UK at our airports and ports. The International Passenger Survey is a sample survey carried out at UK ports of entry. It is a survey of respondents' intentions when they are at the point of entering or leaving the UK. It is, therefore, not designed to tell us, for example, what those respondents that report they are migrating into the UK to study, actually go on to do. Do they take up their student places or do they enter the UK labour market? The IPS cannot tell us what happens at the end of their studies. Do international students stay on and work in the UK with a work visa; do they leave the UK; or do they remain here illegally? The statistical evidence base around these important questions needs improving so that policy-makers and the public are better informed about international student migration. Better and faster access to sources of administrative data held across government is essential to secure an improvement, for example:

- *Linking together Home Office datasets on visas with higher education statistical returns will enable better understanding of precisely when international students are expected to complete their studies, and also those students who subsequently switch their visa status.*
- *Combining these sources with administrative data held by HMRC and DWP will help to identify the number of international students who subsequently go on to work in the UK and their contribution to the labour market and UK economy.*
- *These sources of information are also important to help validate ONS's International Passenger Survey estimates, and to improve the quality and reliability of these data*.

The House of Commons Science and Technology Committee recently published its report on the *Big Data Dilemma*. The Committee concluded that, while "big data is a UK success story" which could create up to 58,000 jobs and £216bn contributed to the UK economy over a five-year period, existing big data sources are not fully exploited. Moreover, the Government could "also do more to make its databases 'open' and to share them with businesses, and across Government departments to improve and develop new public services". The Committee also made several recommendations in respect of opening up departmental and other data sources, specifically to the Office for National Statistics for the purposes of producing official statistics and improving data quality:

- "There are enormous benefits in prospect for the economy and for people's lives from making the nation's core data infrastructure 'open'. The Government's work in this area has put the UK in a world-leading position. But there is more to do to break down departmental data silos, to bring data together in order to further improve public services,

as well as to improve data quality. The Government should set out how it can build capacity to deliver more datasets, increasingly in real-time, both to decision-makers in Government and to external users and, in particular, should work to establish a right of access to data for the Office for National Statistics. The Government should also establish a framework – to be overseen by the Government Digital Service, the Office for National Statistics or another expert body – for auditing the quality of data within Government departments amenable for big data applications, and for pro-actively identifying data sharing opportunities to break departmental data silos (Paragraph 42) [and]

- "While the private sector is making great strides in identifying opportunities for bringing different datasets together, it is understandably more challenging for businesses in a competitive market to share valuable data with one another or with Government. The Government's Digital Catapult therefore plays a vitally important role in facilitating private sector data sharing in a 'safe', trusted environment. The Government should map out how the Catapult's work and its own plans to open and share Government data could be dovetailed. The Government should also consider the scope for giving the Office for National Statistics greater access both to Government departments' data and private sector data (Paragraph 56)".[2]

New legislation to give professional statisticians producing our National and official statistics much better, secure access to an array of administrative and other new sources of data will benefit the wider UK data infrastructure as well as the UK statistics system, enabling better, more well-informed decision-making, more efficient data collection, processing and dissemination, and less administrative and financial burden on those who are required to respond to our surveys, for example:

- **Population and public policy:** Modernisation of how we undertake the Census (cost: £480 million in 2011); better quality statistics about our population, migration and life events; more frequent and better integrated population statistics outputs; and the development of new socio-demographic indicators such as improved local authority-based estimates of international migration.
- **Economy and productivity:** Improving our understanding of the economy, including economic productivity, consumer prices, National Accounts, GDP, and regional economies; better estimates of the contribution of different industries to economic growth; and improved statistical estimates of the characteristics of regional economic variation to support the development of local economic policies.
- **Employment and incomes:** Better statistical analysis of the labour market, pensions, earnings, and household and personal incomes; analysis of continuous and multiple employment, variation in earnings, and the determinants of moving between being in work and on benefits.
- **Business statistics:** Access to new sources of data about businesses will reduce the current level of respondent burden from undertaking high-frequency business surveys, reduce the size and scope and number of existing mandatory business surveys, and improve the quality of statistical estimates.
- **Registers, sampling and coverage:** Increasing the coverage, for example, of the inter-departmental business register to identify the active trading status of businesses and to more easily identify the smallest of undertakings, enabling ONS to improve its analysis of the UK economy and provide more responsive analysis.

[2] http://www.publications.parliament.uk/pa/cm201516/cmselect/cmsctech/468/468.pdf

Keeping data safe: protecting privacy and confidentiality

Citizens and businesses expect their confidential data to be kept safe and secure, their privacy protected, and the data only to be used for the public good. Securing and maintaining public confidence and trust in how the UK statistical service uses identifiable data is essential for any new statutory framework to succeed, and therefore reassuring the public and businesses that their data will be used legally, ethically and safely at all times, and only for the purposes of producing aggregate official statistics, will be of the utmost importance. The *Data Protection Act 1998* and the accompanying data protection principles provide a most important safeguard and set of guiding standards, not least that arrangements for the sharing of data are both proportionate and for clearly-specified purposes. There are a range of other safeguards already in place:

- **Limited to statistics and research purposes:** The *Statistics and Registration Service Act 2007* (SRSA) limits the functions of ONS (as the executive arm of the UK Statistics Authority) to the production and publication of official statistics that serve the public good. The Authority cannot exercise any functions beyond the scope of the SRSA. Therefore, data held by ONS cannot be used subsequently for operational purposes.
- **Criminal penalties for misuse:** The SRSA provides for a strong criminal penalty on the unlawful disclosure of data. The Statistics Authority is also subject to the Data Protection Act, the law of confidence, and the Human Rights Act.
- **Statutory independence:** The Statistics Authority has statutory independence from ministers, operates at arm's length from government, and is directly accountable to Parliament. The Statistics Authority Board has a majority of non-executive members, and the Chair of the Authority is appointed after a pre-appointment hearing before a parliamentary committee and a formal motion debated on the floor of the House of Commons. The Chair and senior executives are held publicly to account and routinely provide evidence to parliamentary committees.
- **Transparency and standards:** ONS operates transparently and publishes guidance about what data it uses and when, and the public value that is derived from the data and information supplied to it for the purposes of producing official statistics and statistical research. ONS's Information Charter sets out how ONS carries out its responsibilities for handling personal information. ONS's Respondent Charters for business surveys, and household and individual surveys set out the standards that respondents can expect.
- **Strict security controls:** ONS has a strong record in protecting and safeguarding the security of data and information supplied to it, not least in its rigorous protection of personal Census information collected over the past 200 years. ONS imposes strict controls around physical security, personnel security and procedural security of the identifiable data it holds. All ONS staff must sign the ONS Confidentiality Declaration to confirm they understand strict obligations to keep information safe and secure, and the penalties for any infringement. ONS also adheres to the Government's Security Policy Framework.
- **Statistical disclosure control:** All outputs from ONS research are subject to Statistical Disclosure Control which prevents the identification of individuals, households and businesses (and their attributes).
- **Codes of practice:** The Code of Practice for Official Statistics has statutory underpinning in the SRSA and statisticians are under an obligation to adhere to its ethical requirements, including its principles of integrity, confidentiality, and the use of administrative sources for statistical purposes.[3] Consideration could usefully be given to whether a new framework for the National Statistician to access identifiable data held

[3] https://www.statisticsauthority.gov.uk/monitoring-and-assessment/code-of-practice/

across government and beyond requires a supplementary code in order to extend further public confidence, and the Government's current public consultation on *Better Use of Data in Government* is eliciting views on its contents.

- **External scrutiny:** The National Statistician recently established the National Statistician's Data Ethics Advisory Committee which provides ethical consideration of proposals to access, share and use data.[4] The committee has a majority of independent and lay members from outside Government, and operates transparently with all papers and minutes published. This committee provides independent scrutiny of data shares and reports to the National Statistician who reports to the Statistics Authority Board.

[4] https://www.statisticsauthority.gov.uk/national-statistician/national-statisticians-data-ethics-advisory-committee/

The current legal framework is problematic and restrictive

The *Statistics and Registration Service Act 2007* (SRSA) limits the UK Statistics Authority's statutory role to producing official statistics, promoting and assisting in statistical research, and providing statistical services, for the public good. However, there are many problems with the current legal framework for accessing identifiable data for statistics and research purposes. The Office for National Statistics (ONS) has to secure access to the identifiable data it requires for its statistical functions through Information Sharing Orders (ISO). The SRSA requires the Minister for the Cabinet Office to make ISOs to authorise a public authority to disclose clearly defined sets of data to ONS. ISOs can only give legal gateways to remove a barrier in a rule of law or an Act passed *before* July 2007 but not for a prohibition that came into force after that date. The procedure around ISOs is inflexible and cumbersome. It takes a minimum of six months and frequently much longer to complete.

The operation of these arrangements in practice is incompatible with meeting the needs of users of statistics across Government and beyond for timely and responsive data from the statistical service to inform better decision-making. Legislation covering access to data from businesses dates from the 1947 *Statistics of Trade Act*. It does not have the flexibility to tailor the public good need for access to statistics with efficient, effective and proportionate mechanisms expected by businesses.

Information Sharing Orders under the Statistics and Registration Service Act 2007

Statutory Instrument	Information sources	Data owner	Purpose	Time taken*
Statistics and Registration Service Act 2007 (Disclosure of Pupil Information)(England) 2009	School census, National student database	Department for Education	Population statistics; Census arrangements; Assessment of census returns	24 months
Statistics and Registration Service Act 2007 (Disclosure of Higher Education Student Data) 2009	Student demographic information	Higher Education Statistics Agency	Population statistics; Census arrangements; Assessment of census returns	22 months
Statistics and Registration Service Act 2007 (Disclosure of Pupil Information)(Wales) 2011	Pupil level school census for Wales	Welsh Government	Population statistics; Assessment of census returns	18 months
Statistics and Registration Service Act 2007 (Disclosure of Value Added Tax Information) 2011	VAT Information	HM Revenue and Customs	Economic and business statistics	20 months
Statistics and Registration Service Act 2007 (Disclosure of Social Security Information) 2012	Customer Information System data	HM Revenue and Customs/Department for Work and Pensions	Population statistics; Assessment of census returns	23 months
Statistics and Registration Service Act 2007 (Disclosure of Revenue Information) 2015	Physical characteristics of properties	Valuation Office Agency	Economic statistics	6 months

* Time taken is calculated as the length of time from the start of official-level feasibility discussions to the conclusion of the parliamentary process

Source: UK Statistics Authority

CASE STUDY: Shopping and the retail industry in the UK

ONS's statistics on inflation (especially the Consumer Prices Index) are one of the most in-demand, headline numbers produced each month. However, the established method for collecting the underlying data for inflation data remains an expensive, inefficient statistical and logistical challenge; the data are also limited in what they can tell us about the variation in households' experiences of prices and shopping, what is really going on in the retail sector, how retail contributes to the wider UK economy, and what is happening in different geographical parts of the country. Each month, data collectors collect approximately 100,000 individual prices of goods from over 140 locations across the UK. ONS supplements this with desk research on another 80,000 prices in order to produce a suite of monthly inflation estimates which are used by decision-makers and the general public alike as a key indicator of the health of the UK economy. However, the statistical estimates are inevitably limited to the individual prices of a small selection of the overall number of goods available for sale. It is also difficult to account for the effect of retailers' price discounting policies (such as 'buy one, get one free' offers), and no information is currently available to ONS about the volume of the goods or services sold each month using this approach.

Technological advances have the potential to greatly improve the quality and quantity of data that underpin our statistical estimates of consumer prices and retail sales. Most retailers collect electronic 'Point of Sale' data which includes information about the sale price, total sales, and the volume of goods being sold in the UK. Often this information can be disaggregated further to identify whether a price discount was applied, and the geographical location that goods were purchased from, which has the potential to improve the availability of local-area inflation estimates. These data are also typically collected in 'real time'. The statistical benefits in securing access to these data are enormous, including:

- *Reducing the need for costly and time-consuming in-store collection of individual price information;*
- *Increasing the detail and depth of available data sources, therefore increasing the statistical coverage on which basis the estimates are produced. Because of the significantly increased volume of data that are available, new price indices can be produced including those for local areas which can support the evaluation of local economic conditions; and,*
- *Improving the quality and timeliness of existing estimates of consumer and retail prices because of the increased coverage of price observations and the 'real time' availability of the data. Statistical estimates can also include analysis on the total volume of, and total expenditure on, goods and services sold by the UK retail sector, which can feed in to wider improvements of UK economic statistics.*

ONS recently published experimental research about the improvements that are possible in this area through access to a wider array of statistical sources.[5] While the research was limited to particular online 'snapshots' of data, it shows that more direct and real-time access to retailers' point-of-sale data would be invaluable in improving existing statistical estimates of consumer prices and the contribution of the retail industry to the wider UK economy.

[5] http://www.ons.gov.uk/ons/guide-method/user-guidance/prices/cpi-and-rpi/research-indicies-using-web-scraped-data.pdf

Improving the international standing of the UK

Arrangements in the UK lag far behind international best practice. Nearly all other national statistical offices make use of administrative data for the purposes of producing official statistics and research. In many other countries, legislation gives national statistical offices access to the necessary data sources to produce aggregate social and economic statistics and research.

CASE STUDY: Other countries have better arrangements than we do in the UK

*Statistics **Canada** has the right to access "any documents or records that are maintained in any department or in any municipal office, corporation, business or organisation, from which information (is) sought".[6] Survey respondents in Canada are also routinely offered the option to have their records taken direct from administrative sources held elsewhere rather than be required to answer survey or census questions. The vast majority opt to do so.*

*Statistics **New Zealand** has a legal right to require "information from any person in a position to provide it to enable the production of official statistics".[7] The sharing of data between departments and Statistics New Zealand does not require specific legislation. The goal is to use "administrative data as a first source" so that direct data collection is only undertaken "where necessary".[8]*

*The **Republic of Ireland** Central Statistical Office has a right to use many of the records held by other public authorities for the purposes of producing official statistics. Records must be provided free of charge.[9]*

The Statistics Authority recently undertook desk research with other working-level official contacts in other European national statistical offices to establish how data access legislation arrangements compare with the UK. 14 responses were received. The findings confirmed the relatively weak position of the UK internationally given that all those countries that responded enjoyed more advanced legislative arrangements that permitted their national statistical office with unrestricted access to data sources for the purposes of producing official statistics. While legislation in the UK permits ONS to access to some civil registration information for statistical purposes, in all other areas the UK position is not as favourable. The main findings of the research were that:

- Almost all countries have data access legislation that provides their national statistical institute with access to household taxes and benefits data (13 out of 14 countries).
- Similarly, legislation routinely provides access to datasets held by businesses (12 countries); and in a majority of cases where that is the case, such data must be provided for free (7 countries).
- In 10 countries, legislation permits the national statistical institute with access to health information for the purposes of producing official statistics; in six countries, data access legislation includes a statutory obligation on data providers to consult with the national statistical institute before making changes to data systems; and in 10 countries, data access legislation has been in force for 10 years or more.

[6] http://laws-lois.justice.gc.ca/eng/acts/S-19/FullText.html
[7] http://www.legislation.govt.nz/act/public/1975/0001/latest/DLM430756.html?search=ts_act_Statistics+Act_resel&p=1
[8] http://www.stats.govt.nz/about_us/what-we-do/our-publications/annual-reports/annual-report-2014/our-strat-priorit.aspx
[9] http://www.irishstatutebook.ie/eli/1993/act/21/section/30/enacted/en/html#sec30

- Data access legislation has resulted in improvements to the quality of official statistics outputs (10 countries), while reducing the burdens on data providers (11 countries). In 10 countries, legislation has resulted in reduced costs for the national statistical office.
- In the vast majority of cases, national statistical offices will be increasing their dependency on administrative sources in future (12 countries), while in nine countries additional legislation around access to data for statistical purposes is being considered.

A summary table showing the findings of the research is provided in **Annex 1**.

A recent EU peer review of the UK statistical service recommended that the UK Statistics Authority should be able do to more to utilise administrative data for the purposes of producing official statistics. The review found that the Statistics Authority should "continue to seek agreements on new legislation which would authorise, encourage and facilitate the use of administrative data for statistical purposes, subject to proper governance and confidentiality arrangements".[10]

The EU statistical system asks that the statistical offices in member states to have "the right to access and use, promptly and free of charge, all administrative records and to integrate those administrative records with statistics" for the purposes of developing, producing and disseminating official statistics about the European Union and its member states. National statistical offices should also be "consulted on, and involved in, the initial design, subsequent development and discontinuation of administrative records" and should be involved in "standardisation activities concerning administrative records" needed to produce coherent official statistics.[11]

[10] http://ec.europa.eu/eurostat/documents/64157/4372828/2015-UK-report/d44f7d3f-64c1-4450-8a37-bfadb8542607
[11] http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32015R0759&from=EN

Improving UK economic statistics

An interim report by Professor Sir Charles Bean as part of his **independent review into UK economic statistics** was published in December 2015.[12] In his covering statement, Sir Charles concluded that "It's nonsensical that different bits of the government don't speak to each other, so that businesses and households have to provide the same information twice. Unlocking the data hoard already held by the public sector will not only save businesses money but also produce more timely and accurate statistics."[13]

The interim report considered in detail the current ways in which ONS uses administrative and other data sources in its production of UK economic statistics, alongside the current legislative and other barriers to further use, international comparisons, and future opportunities from improvements in this area. The review found that "greater use of public and private administrative data has the potential to transform the provision of economic statistics in the long term" and that progress in a number of priority areas should be considered, including:

- **"Amend the legal framework to increase flexibility**. Under the present framework, the onus is on the holder of public administrative microdata to decide whether or not to grant access. A more permissive framework would start from the presumption that, subject to appropriate measures being in place to preserve confidentiality, data held by public authorities should be available to ONS for the purpose of producing statistics, unless there are strong grounds (e.g. national security) for that not to be so. This represents a reversal of the burden of proof. The public may indeed already believe that this is what happens. But in any case, in order to ensure that access is not abused, an independent ombudsman (or similar) could be appointed to adjudicate difficult cases, for example to check that use is consistent with legislation, and more generally to ensure that the regime operates ethically [and]
- **Exploit new data sources, particularly in the private sector**. ONS should seek to exploit new data sources from outside of the public sector that have the potential to transform economic statistics. Given that new data sources emerge all the time, it will be important for ONS to be constantly on the lookout for new data sources and techniques that it can exploit, possibly in partnership with the data owner. ONS also needs to be fully aware of the activities of businesses and other National Statistical Institutes (NSI) that are at the cutting edge of the exploitation of such data."

The interim report set out two recommended actions to ensure the better use of administrative and other data sources is made a reality:

- Remove obstacles to the greater use of public sector administrative data for statistical purposes, including through changes to the associated legal framework, while ensuring appropriate ethical safeguards are in place and privacy is protected.
- Exploit new methods of collecting data and explore the scope for using information gathered by private sector entities in the production of economic statistics, nowcasting and one-off studies of emerging measurement issues.

[12] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/481452/Bean_review__Interim_Report_web.pdf

[13] https://www.gov.uk/government/publications/independent-review-of-uk-economic-statistics-interim-report/press-notice-unlock-public-sector-data-hoard-to-transform-statistics-says-charlie-bean

CASE STUDY: Identifying financial risks to the UK economy

One lesson of the global economic downturn in 2008 was the need for more granular financial statistics to help identify financial risks to our economy, and better support financial stability and macro-economic policy decision making. The Turner Review (2009) concluded that there had been too much focus "on the supervision of individual (financial) institutions" and the need for a much better understanding of "wider sectoral and system-wide risks".[14] As well as understanding the total assets and liabilities of each financial institutional sector in isolation, knowing how much each financial institution owes and to whom, would provide a more comprehensive picture of the overall degree of risk present in the financial system at any given moment in time. Such 'from whom, to whom' estimates are key to understanding how much money is flowing around our financial sector and where it is flowing to. The International Monetary Fund, the Bank of England, and the Financial Stability Board have all emphasised the urgent need for better and more detailed "Flow of Funds" estimates for the UK economy.

Potential new sources of data include data held by:

- *financial regulators – this would allow ONS to move away from relying predominantly on survey sources to compile financial accounts. The information used by a regulator should not be inconsistent with that used by a macro-prudential policy maker, which in turn should be consistent with what underpins macro-economic policy;*
- *private-sector organisations – this would be of value to ONS in replacing existing data collection methods; in the quality assurance of the coherence of statistical estimates of, for example, currency transactions, and equity and investment fund shares; and data on the household sector would improve statistical coverage of that sector; and,*
- *other public-sector organisations – again, with a view to moving away from survey sources and as a means of quality assurance.*

Maximising the use by ONS of these regulatory, commercial and administrative sources of data to improve the granularity of Flow of Funds estimates would also have a range of other benefits for UK economic statistics, including:

- *Better macro-economic analysis of the structure of institutions in the financial system, and how they support the wider UK economy;*
- *Better macro-prudential analysis of the interconnectivity of different sectors in the financial system, and an assessment of the extent of financial risks and the overall resilience of the financial system as a whole;*
- *Better micro-prudential analysis of financial risk at the individual firm level, especially where risks are occurring due to atypical behaviours of a small group of firms, where such behaviours would be masked by analysis at a more aggregate and less granular level;*
- *Reductions in 'red tape' burden for businesses, replacing lengthy survey questionnaires with data already collected elsewhere; and,*
- *Better data and statistical coverage, including more detailed statistical breakdowns by type of business; improvements to UK Balance of Payment estimates; and improved international consistency of the UK's financial accounts.*

[14] http://www.fsa.gov.uk/pubs/other/turner_review.pdf

CASE STUDY: Saving for retirement and the take-up of workplace pensions

Increasing incomes and savings for retirement continue to be important policy objectives for government, coupled with reform of the UK pensions industry. The demand for timely and detailed analysis is set against a backdrop of an ageing population and an historic decline in private pension scheme participation. Recent reforms include 'Automatic Enrolment', greater flexibility in accessing retirement income, and simplification towards a single-tier State Pension system.

Pensions remain an important component of UK social and economic statistics, but ONS continues to rely on traditional survey sources such as the Annual Survey of Hours and Earnings, the Wealth and Assets Survey, the Occupational Pension Schemes Survey, and surveys of businesses to provide data about investments into the pension industry. These survey sources take time to collect, process, and publish; they also place administrative burdens on those companies and individuals who are asked to complete them. But, we know very little about the effect of policy reforms on the behaviour and choices of people close to retirement age. There is also limited aggregate statistical analysis of the membership and benefits of pension schemes, participation, and the pension savings of the self-employed; and analysis of pension take-up by ethnicity, caring responsibility, general health, and local- area is also difficult. There are a number of different data sources which will help to improve this, for example about:

- *State Pension payments for those above retirement age, and contribution years of those below retirement age;*
- *Tax information to identify workplace pension participation and contributions, employers' pension costs, and pensions information for the self-employed, instead of relying on data from costly business surveys which have long lead-times from collection to the publication of results;*
- *Regulators' data, including on Automatic Enrolment compliance, contract-based pensions, and funded defined-benefit pension schemes; and,*
- *Data held by the wider pensions industry which can help to describe the current position of the UK pensions industry as a whole.*

What could a new legislative framework look like?

New legislation can be tightly restricted to give access only to the data necessary to deliver statistics and research that serve the public good. The restrictions would cover data held by public authorities and larger private undertakings. As part of this legislation, public authorities and larger private undertakings would have an obligation to comply with a request to disclose data that is needed for the National Statistician's statistical and research functions. In effect, the legislation would be a 'one way valve' through which identifiable data can be accessed by the National Statistician for statistical purposes but cannot then subsequently be used and passed on for operational purposes. This would be similar to the arrangements in Canada, Ireland and New Zealand discussed above.

This statutory framework would provide the National Statistician with a gateway to access a much wider range of administrative data sources to use for statistical purposes than is currently possible, while providing strong restrictions and safeguards. This would enable the statistical service to improve the quality of its existing economic and social statistics by making them more relevant, timely and reliable, alongside developing new statistical outputs to meet the needs of users in the future. Access to new data sources will provide fresh insights on social and economic change which will strengthen the evidence base for policies and improve policy-making decisions based on research and statistics.

CASE STUDY: Understanding the labour market outcomes of 'NEETs'

Reducing the number of people who are not in education, employment or training (NEET) is a key policy priority of this Government, for example its 'Earn or Learn Taskforce' and full employment target. There are a number of factors which can explain why a young person becomes a 'NEET', ranging from poor educational attendance and attainment, teenage parenthood, youth offending, being in social care, and other social and economic factors. Many of these are dealt with, and measured by, different departments and agencies across government, and consequently there remains a number of different statistical sources and different interpretations of what is really happening, making the analytical contribution to the policy solutions unclear and contradictory.

Some data about NEETs can be extracted from the Labour Force Survey (and an adjacent survey boost known as the Annual Population Survey), but sample sizes, coverage and questionnaire limitations mean that the depth of data that are available, and the timeliness of the statistical analyses produced, are often quite limited. Other datasets are compiled across a range of Government Departments and the Devolved Administrations, although many of these data are collected on a different methodological basis, making analytical comparisons between them difficult. By pooling together a range of administrative sources of data will enable a much richer, accurate and timely analysis of this important group of the working-age population who are neither in employment, education or formal training. For example, linking together:

- *A range of educational data sources, including the School Census, Individual Learner Record, higher education administrative data, and other management information can provide more comprehensive data on educational attainment and the number of people moving on to further and higher education;*
- *Data on apprenticeships to help improve the quality of Labour Force Survey estimates of 'NEET' by providing more complete information on the number of apprentices;*

- *Benefits data and tax payments data which can improve the reliability of LFS estimates of economic status for those in the 18-24 age group, including at local area level, alongside analysis of qualifications, the length of unemployment, previous jobs held, reasons for economic inactivity, and patterns of benefit claiming;*
- *Tax and national insurance payments information to measure flows between being in employment and subsequently becoming NEET, and vice versa, and understanding some of the risk factors behind why people become NEET, including at a local-area level; and,*
- *Datasets held across the Devolved Administrations can provide a comprehensive picture of NEETs across the UK as a whole, as well as enabling the production of disaggregated sub-national statistics to help improve local employment policy-making.*

New legislation can also include a right for the National Statistician to share data for statistical purposes with other statistical producers in the Devolved Administrations. This would enable Scotland, Wales and Northern Ireland to meet their statistical needs from devolution, and also for the ONS, as the UK's national statistical office, to continue to meet its international obligations to produce comparable statistics for the UK as a whole.

Continuity of data supply is also essential if the statistical service is to reduce its reliance on traditional survey-based sources in favour of accessing administrative and other sources. The National Statistician will therefore need to be consulted about changes to the collection and processing systems for data which are used subsequently for statistical purposes, akin to the arrangements provided through legislation in Ireland.

Specifically, the proposals for new legislation will:

- Give the National Statistician a right of access to data held by public authorities and larger private undertakings for the sole purpose of producing statistics and statistical research;
- Enable the National Statistician to securely share information with statisticians in the Devolved Administrations for their statistical purposes, to help them meet their statistical needs arising out of devolution;
- Re-affirm rigorous penalties for the misuse of identifiable data to maintain public confidence and trust; and,
- Include an obligation to consult the National Statistician before changes to data collection are made in order to protect the security of data supply, and the accuracy and reliability of statistical outputs derived from these data.

CASE STUDY: The changing face of the UK labour market

Statistics about the UK labour market are produced from a variety of traditional survey sources. These are costly to produce; because the data are derived from survey respondents the aggregate statistics take time to collate and quality assure; and it places a burden on the individuals and businesses who are asked to respond. The principal survey sources are the Labour Force Survey, supplemented by the Annual Population Survey, the Annual Survey of Hours and Earnings, and data on jobs and earnings that are supplied by businesses in response to a variety of business surveys. The estimated cost of administering these surveys is £2m per year to ONS, and an additional £12m of

burden to respondents. A wealth of data about the UK labour market is already collected elsewhere across government, for example:

- *Tax information will provide a rich array of new sources of data about employees and their earnings, as well as information about those in employment that have multiple jobs, and data on those who are self-employed.*
- *Matching this information with the inter-departmental business register can also allow new analyses of the labour market and earnings by industry type, geographical location, as well as much better analysis of the earnings distribution.*
- *Because these data are collected more frequently than is possible through existing sample surveys, the potential for improvements in the timeliness of analysis and statistical outputs is considerable;*
- *Benefits and national insurance information will enable new analysis of those who are moving off of benefits and into employment in the labour market, the types of work they are undertaking, and the characteristics of those who are in the 'low pay-no pay' cycle.*

Richer statistical analysis in this area will also allow for more sub-national and local-area analysis, including for the Devolved Administrations, cities, and localities. Linking together various other data sources will also allow better statistical understanding of the labour market contributions of non-UK nationals than is currently possible from the limited sample coverage of existing surveys such as the LFS and ASHE.

Conclusion

If decision-makers – wherever they may be, in Parliament, Government, businesses or in households – are to make better, well-informed and timely decisions drawing on the very best available data, numerical evidence and analysis, they need better quality National and official statistics, and statistical research, which draws on a much wider and richer array of statistical sources than it is currently possible to do. Better use of data and official statistics is essential for all decision-makers to help monitor and strengthen the UK economy and businesses, in the delivery of better public services, and in teaching and academic research about our population and the society in which we live. The current legislative arrangements do not provide our professional statisticians with access to the necessary administrative and other sources of data, and are hampering these much needed improvements and insights.

New statutory arrangements for access to data can deliver significant benefits not only for UK official statistics and Government, but for the UK as a whole:

- **More efficient:** the statistical service can maximise the benefits of administrative data held across Government by collecting data once but using it many times, reducing the burden on survey respondents and reducing administrative costs;
- **Better statistics:** giving the National Statistician access to a much wider range of data sources will make UK official statistics more relevant, more timely, and more reliable, and will reduce some of the current sizeable uncertainties around social and economic change arising out of survey estimates; and,
- **Better decisions:** access to new sources of data will improve policy-making decisions based on official statistics and statistical research, and will strengthen the evidence base for Government policy. New and better statistical sources, and fresh statistical insight on social and economic change, can be delivered in more relevant and timely ways, informing public debate and policy-makers much earlier than is currently possible.

At the same time, for us to be successful, we must maintain the confidence and trust of those who provide us with their data: that we will keep their data safe and secure; that we will handle it legally, responsibly, and ethically; that we will be open and transparent about what data we are using and why; that we will apply the strictest penalties for misuse; and that we will use their data for one purpose, and one purpose only – producing objective, impartial aggregate statistical analysis of the important and interesting questions of the day about our economy and society to support better decision-making for the public good.

ANNEX 1: Data Access legislation: A European perspective

	Characteristics of legislation							Impact of legislation			Future	
	Data sources				*Obligations*		*In force*					
	Civil registration	Household tax and benefits	Businesses	Health	Business data: Free-of-charge	Consulted on changes to data systems	> 10 years	Improved Quality	Reduced costs	Reduced burden	New legislation	Increase dependency on admin sources
Austria	√	√	√	X	√	X	√	√	√	√	√	
Belgium	√	√	√	X	√	X	X	*No change*	√	√	X	√
Bulgaria	√	√	X	√	X	X	X	*No change*	*No change*	*No change*	√	√
Czech Republic	√	√	√	√	√	√	√	√	*No change*	√	√	√
Denmark	√	√	√	√	√	√	√	*No change*	*No change*	*No change*	n/a	√
Estonia	√	√	√	√	√	√	√	√	*No change*	√	X	√
Finland	√	√	√	X	X	X	√	√	*No change*	√	√	√
France	√	√	√	√	√	X	√	√	*No change*	√	√	√
Hungary	√	√	√	√	X	X	√	√	*No change*	*No change*	√	√
Iceland	√	√	√	√	√	√		√	√	√	X	√
Lithuania	√	√	√	√	X	X	√	√	√	√	√	√
Poland	√	√	X	√	X	√	√	*No change*	√	√	X	√
Slovakia	√	X	√	X	X	√	X	√	*No change*	√	√	√
Switzerland	√	√	√	√	X	X	√	√	√	√	n/a	n/a
United Kingdom	√	X	X	X	X	X	X	n/a	n/a	n/a	√	√

Source: UK Statistics Authority

Note: The data in this table have been provided by official working level contacts in response to desk research with European national statistical institutes; they represent the views of the individuals and not the national statistical institute concerned.