UK STATISTICS AUTHORITY

Draft Minutes

Friday 28 April 2017
Boardroom, London

Present
UK Statistics Authority
Sir David Norgrove (Chair)
Professor Sir Adrian Smith (Deputy Chair)
Mr Jonathan Athow
Ms Sian Baldwin
Dame Colette Bowe
Dame Moira Gibb
Professor David Hand
Professor Jonathan Haskel
Mr Ed Humpherson
Dr David Levy (until item 16)
Ms Nora Nanayakkara
Mr John Pullinger

Also in attendance
Mr Robert Bumpstead
Mr Ian Cope
Mr Joe Cuddeford
Ms Frankie Kay (for items 14 to 16)
Ms Rebecca Riley (for item 16)
Ms Heather Savory
Dr Tom Smith (for items 14 to 16)
Ms Siobhan Touhy-Smith (for item 13)
Mr Ross Young (for items 14 to 16)

Apologies
None

1.   Apologies
1.1   There were no apologies received.

2.   Declarations of Interest
2.1   There were no new declarations of interest.

3.   Minutes and matters arising from previous meetings
3.1   The minutes of the previous meeting held on 2 March 2017 were agreed. Progress with actions was reviewed.

3.2   Ms Nanayakkara reported that she had visited the Newport site on 26 April. She had visited a number of business areas and had met with apprentices. She had also spoken to a group of staff about her background and experience, and about the role and work of the Board. Feedback from staff had been very positive.

3.3   The Chair reported on the topics discussed at the meeting of the NEDs that had taken place prior to the start of the Board meeting. The NEDs had discussed:

    i.   management capacity, including whether there was enough 'thinking time' to consider what issues might arise. It was recognised the NEDs could play a part in this, including by thinking about what papers they wished to commission for Board discussion;

    ii.   the need for appropriate effort to be put into succession planning; and

    iii.   whether current recruitment procedures were fit for purpose.

3.4   Commenting on these topics, Mr Pullinger confirmed that:

    i.   Mr Iain Bell would be joining the organisation from 1 June 2017 as Deputy National Statistician for Population and Public Policy. Time had been set aside in June and July for horizon scanning;

    ii.   there had been a number of personnel changes at Director and Director General level in the past two years, and while succession arrangements had proven to be relatively robust further work would be undertaken; and

    iii.   the Data Science Campus had been set up in a way which demonstrated a different model of recruitment. Good candidates had been attracted and appointed in this way and these methods would be rolled out across the office.

3.5   The meeting considered the communications function following the announcement that Mr Chris Lines would be leaving ONS. In the interim, Mr Bumpstead would support the communications division, and work would take place to scope how best to define the role and recruit a new Head of Communications.

4.   Report from the Authority Chair [SA(17)12]
4.1   The Chair reported on his recent activities and noted a number of introductory meetings and engagements including staff talks at the Newport, Titchfield and London sites, and meetings with senior leaders, key stakeholders and journalists.

4.2   The Chair had circulated a paper to the Board summarising his first thoughts following his introductory meetings. The Board took note of the paper and agreed it was a good summary of the strengths, weaknesses, opportunities and threats facing the statistical system. It was suggested that the opportunities open to the organisation at the present time were great.

4.3   Since the last Board meeting, the Prime Minister had announced that there would be a general election on 8 June. The following points were made:

    i.   Pre-election restrictions on the activity of civil servants had come into effect from midnight on 21 April. The usual conditions were in place allowing statistical activities to continue in line with the Code of Practice for Official Statistics.

ii. The Chair had written to the leaders of the main UK political parties to ask for their support and leadership to ensure that official statistics were used throughout this election period and beyond, in the public interest and in accordance with the principles of the Code of Practice for Official Statistics. If there was misuse, the Chair would continue the practice adopted in previous elections and referendums, and comment publicly if needed.

5. Pre-release Access [SA(17)20]

5.1 The Chair noted that pre-release access (PRA) was an issue which the Authority Board had been concerned about for a long time.

5.2 Mr Pullinger summarised recent steps taken to reduce the risks presented by PRA, including giving Permanent Secretaries personal accountability for applications from their departments and reducing the number of instances of people receiving PRA by about a third on average. In some areas the reductions were substantial. Mr Pullinger asked the Board for advice on whether this reduction sufficiently mitigated the risks, or whether further action was necessary.

5.3 The Board noted that legal responsibility for decisions on whether to grant PRA to ONS statistics was with the National Statistician. For statistics published by organisations other than ONS, these decisions were made by Ministers or the relevant authority.

5.4 The Board considered the risks PRA posed to market integrity and to public confidence in official statistics. It was noted that while recipients of PRA might need to make adjustments if such access was removed, it was judged to be unlikely to cause insurmountable problems.

5.5 The Board's advice to the National Statistician was to remove all PRA to ONS statistics. The National Statistician would consider this advice and report to the next meeting. Any announcement would be made after the general election.

6. Report from the Chair of the Audit and Risk Assurance Committee

6.1 Dame Colette reported on the meeting of the Audit and Risk Assurance Committee of 15 March. The meeting had considered the forecast outturn position, which appeared to be satisfactory, and whether lessons could be learned from procedures around end year financial management.

7. Report from the Chair of the Administrative Data Research Network (ADRN) Board

7.1 Professor Hand reported on the meeting of the ADRN Board of 3 April. A note had been sent from the ADRN Board NEDs to the Economic and Social Research Council (ESRC) raising concerns about the need for changes to the structure and leadership of the ADRN. A decision from the ESRC council about these changes was expected in due course.

8. Report from the Chair of the Regulation Committee

8.1 Sir Adrian reported on the meeting of the Regulation Committee of 25 April. The meeting had considered the Code of Practice update; the designation of Consumer Price Index including Owner Occupier Housing Costs (CPIH); housing statistics; and migration statistics.

9. Report from the Chair of the Remuneration Committee

9.1 Sir David reported on the Remuneration Committee meeting held prior to the Board meeting. The meeting had agreed the Authority's pay, reward and recognition approach and the approach to SCS pay for 2017.

10. Report from the Chief Executive [SA(17)13]

10.1 Mr Pullinger reported on activity and issues for March and April. Developments highlighted included the Census test; an event about the Flow of Funds; progression of the Digital Economy Bill; the new format for release of consumer price statistics; the launch of the Data Science Campus; and progress with moving business surveys online.

11. Report from the Director General for Regulation [SA(17)14]

11.1 Mr Humpherson introduced a paper which provided an update on regulation activity since the last meeting.

12. The Year Ahead and the Forward Agenda [SA(17)15]

12.1 Mr Bumpstead introduced a paper which set the scene for the 2017/18 year including some key issues and agenda items for Authority Board consideration.

12.2 The Board agreed the draft forward agenda and made a number of suggestions for additional discussion topics for future meetings.

13. New Code of Practice for Official Statistics [SA(17)16]

13.1 Mr Humpherson introduced a paper which provided an update on the Code of Practice for Official Statistics revision. The meeting discussed a draft of the revised Code and proposals for a public consultation. The following comments were made in discussion.

   i. The extension of the Code to a broader range of outputs was welcome. There were questions about how some aspects of the Code would be applied to other outputs. For example it would be helpful to consider whether equality of access would apply to a research output based on secondary analysis of data.
   ii. It was important to ensure that there were no changes which inadvertently lessened important protections. A 'stress test' should be conducted against a number of scenarios to ensure that such protections were not undermined.
   iii. It was confirmed that the new Code would be a more interactive, dynamic reference source, with case studies and examples.
   iv. The authors of the new Code should be clear on how people will actually act in response to the new Code. It should be thought of as a tool being used every day.
   v. It would be important to ensure the Code encouraged positive innovation.
   vi. The Code should be future proof. In two to three years, the statistical landscape would be different. It would be more about data than regular publications coming out each month.
   vii. In the context of the UK leaving the EU, the Code should support the statistical system to make independent decisions, including classifications decisions.

13.2 The Board welcomed the work done to date and agreed that the consultation should be published after the election, subject to a further discussion at the May Board meeting about the communications plan and a 'stress test' of key part of the Code.

14. Building Data Capability through Research [SA(17)17]

14.1 Dr Smith introduced an update on the development of data science capability within ONS through activities within the DSC and elsewhere.

14.2 The following comments were made in discussion.

   i. There was unprecedented interest in the work being conducted at ONS by the DSC. Prioritisation of requests was a big challenge. There was a balance between delivering projects and building capacity.
   ii. In terms of the long term strategy, HM Treasury funding lasted until the end of the Spending Review period (though would need to be confirmed with HM Treasury after the end of the second year). Beyond this, it might be desirable to develop a mixed

model including some outside funding. It was important that this business development work was taken forward well.

iii. One sign of success would be that learning from the DSC would be widely promulgated and help transform the organisation more broadly.

iv. In terms of formal governance, the issue of oversight was being considered, though it was noted that existing structures such as the National Statistics Executive Group (NSEG) and the National Statistician's Data Ethics Advisory Committee (NSDEAC) were already in place.

v. Current drafts of the 'knowledge pathway' ended with benefit to ONS, but should further define the benefits to others beyond ONS, including providers of data. That might help in thinking of the most appropriate governance model.

14.3 The Board welcomed the update. The issues of governance and partnerships would be brought back to a future meeting once some concrete choices had been developed.

15. Plans to use new legislation to increase the use of administrative data

15.1 Mr Young provided an update on the Digital Economy Act and how this would improve ONS's access to administrative data for statistical and research purposes. The Board heard that the Digital Economy Act had received Royal Assent that earlier morning. Mr Young and his colleagues were congratulated for their work helping secure this important new legislation. Mr Cope summarised how the new powers would be used to produce the type of information that is collected by the Census.

15.2 It was noted that, given the power of the administrative data which would be available, it would be possible that future censuses could be very different, with a smaller number of questions asked to validate data. The 2021 Census would allow a parallel run to check the quality of data collected.

15.3 Plans and priorities for using administrative data were in development and were driven by analytical priorities. At the same time existing paper surveys were being rationalised and moved online. Updated proposals for Data Collection Transformation would be brought to the Board in June.

16. Using ESCoE to support Economic Statistics Transformation [SA(17)18]

16.1 Ms Kay and Ms Riley introduced a paper which provided a forward look at plans to improve economic statistics through initiatives such as the Economic Statistics Centre of Excellence (ESCoE) and other research.

16.2 The following comments were made in discussion.

i. ESCoE had been set up quickly. The procurement began in June 2016 and an agreement in place by the end of the year. As well as plans for outputs over the next four years, there were initial outputs scheduled for the second quarter of 2017.

ii. Many of the projects would be using administrative data. Ms Savory confirmed that data as a service meant that data would come into a single infrastructure at ONS then users such as ESCoE and the DSC would have streamlined access.

iii. In terms of governance it was confirmed that there was an Economic Experts Working Group chaired by Mr Joe Grice which provided advice and assurance. Within ESCoE there was an academic assurance board. Proposals for the work plan were made by ONS, and agreed with ONS. ONS had also set a research agenda and asked ESCoE to suggest research which fitted with the strategy.

16.3 The Board welcomed the progress to date and plans for future activity.

17. Any other business

17.1 There was no other business. The Authority Board would meet next on Monday 22 May at 10:30 in London.

UK STATISTICS AUTHORITY

Agenda

Friday 28 April 2017

Boardroom, Drummond Gate, 10:30 – 16:00

Chair: Sir David Norgrove
Apologies: None

10:30 to 11:00: Non-Executive Session

1 11:00-11:10 10 mins	Minutes and matters arising from previous meetings • Declarations of interest	Meeting of 2 March 2017
2 11:10-11:40 30 mins	Report from the Authority Chair	SA(17)12 Sir David Norgrove
11 15:10-15:40 30 mins	Changes in pre-release access to ONS statistics	SA(17)20 Mr John Pullinger
3 11:40-12:10 30 mins	Reports from Committee Chairs • Audit and Risk Assurance Committee • ADRN Board • Regulation Committee • Remuneration Committee	Oral reports Dame Colette Bowe Professor David Hand Professor Sir Adrian Smith Sir David Norgrove
4 12:10-12:35 25 mins	Report from the Chief Executive	SA(17)13 Mr John Pullinger

13:10 to 13:40: Lunch

5 13:40-13:45 5 mins	Report from the Director General for Regulation	SA(17)14 Mr Ed Humpherson
6 13:45-13:55 10 mins	The Year Ahead and the Forward Agenda	SA(17)15 Secretariat
7 13:55-14:20 25 mins	• Code of Practice: Beyond the Stocktake	SA(17)16 Mr Ed Humpherson
8 14:20-14:50 30 mins	• Building Data Science Capability through Research	SA(17)17 Mr Tom Smith
9 14:50-15:20 30 mins	• Plans to use the Digital Economy Bill to increase the use of administrative data	Discussion Mr Ross Young
10 15:20-15:50 30 mins	• Using ESCoE to support Economic Statistics Transformation	SA(17)18 Ms Frankie Kay and Ms Rebecca Riley
12 15:50-16:00 10 mins	Any other business	

Next meeting: 22 May 2017, 10:30 to 16:00, London

UK STATISTICS AUTHORITY

Changes in Pre-Release Access to ONS statistics

Purpose

1. This paper provides an update to the Authority Board on pre-release access (PRA) arrangements.

Recommendations

2. Members of the Authority Board are invited to:

    i.   note the steps taken in order to minimise the risks presented by Pre-Release Access including giving personal accountability to Permanent Secretaries, a reduction in time early access is granted for from 24 to 21 hours, and a reduction in overall levels of pre release by about a third; and

    ii. agree that the report on the review at **Annex A** be published.

Key points

3. The overall results of the exercise currently show:

    * as at December 2016:   **2,603** instances of PRA
    * as at end March 2017:   **1,572** instances of PRA

      This is an overall reduction of 40%.

    * Improved processes for ensuring that the minimum numbers of people that have PRA and relevant documentation in place.
    * More accurate information from Departments regarding people with PRA.
    * Accountability has been strengthened, with top level officials taking responsibility for PRA.

Background

4. At the meeting of the Authority Board in December, I spoke about concerns with the arrangements for PRA to ONS statistics as they stood then. These concerns were based on a trend for increasing instances of access (and the breaches which may follow) which would damage public confidence in official statistics, and create the risk that advance knowledge of data might be exploited for market gain.

5. Since then I have conducted a review into the PRA arrangements, and significantly strengthened the controls that we have in place The new protocol aims to reduce levels of pre-release access to the minimum necessary to support the effective conduct of government business. It does so by introducing:

    i.   an expectation that current levels of pre-release access will be significantly reduced;

    ii. an expected number of individuals in any one department who may be granted pre-release access to any one statistical release; and

    iii. a reduction in the access time from 24 hours to 21 hours (i.e. releases will be provided at 12:30 on the afternoon prior to release).

6. In introducing these conditions, the protocol is clear that Permanent Secretaries are accountable for the PRA arrangements in place in their own departments.

7. This exercise has led to a reduction in overall instances of PRA by more than a third, with 61 per cent reduction in the Bank of England, and 41 per cent reduction in HMT.

8. Full details are included in a report attached at Annex A.

John Pullinger, National Statistician, 21 April 2017

List of Annexes

Annex A   A review of pre-release access arrangements to publications from ONS

A REVIEW OF PRE-RELEASE ACCESS ARRANGEMENTS TO PUBLICATIONS FROM THE OFFICE FOR NATIONAL STATISTICS (ONS)

JOHN PULLINGER, NATIONAL STATISTICIAN; APRIL 2017

TABLE OF CONTENTS

INTRODUCTION

Pre-release access is the practice of making official statistics available in advance of their publication to specific individuals not involved in their production. In most cases this includes government ministers, their advisers and their officials.

Under the Pre-Release Access to Official Statistics Order 2008, the National Statistician has a duty (as the "person responsible" for decisions on PRA to statistics produced by ONS) to restrict PRA to the minimum number of people. They may only grant such access where to deny it would significantly impede:

i.   the provision of responses to questions, or making statements about statistics when they are released; or

ii. taking action before or after publication of statistics.

The National Statistician must also ensure that the public benefit likely to result from such access outweighs the detriment to public trust likely to result from such access.

It is, therefore, important to regularly review pre-release access arrangements.

BACKGROUND

In 2013, ONS developed new administrative controls to manage PRA, and took steps to reduce it. This exercise was laborious, requiring all recipients of PRA to submit evidence in relation to a set of criteria. Despite ONS continuing to apply the same criteria to assess new requests for PRA, the number of instances of PRA has been growing

In addition, the exercise in 2013 did not lead to a long term reduction in the number of instances of pre-release access. Therefore, in December 2016 the National Statistician, with the full support of the UK Statistics Authority Board, started a further review of the arrangements for early access to statistics produced by the ONS.

THE REVIEW

In discussion with Permanent Secretary colleagues from across government, the National Statistician outlined his concerns with the pre-release access arrangements. He discussed with them what the minimum requirement would be for them to carry out their departmental responsibilities in light of his concerns.

The National Statistician wrote to the Prime Minister and to the Cabinet Secretary in late 2016, recommending a new protocol for pre-release access to statistics to mitigate concerns around pre-release access arrangements. The National Statistician then wrote to all Permanent Secretaries outlining that new rules would come into place on 1 April 2017 (see Annex A).

NEW ARRANGEMENTS FOR PRE-RELEASE ACCESS

Any pre-release access to statistics produced by ONS is now granted under conditions which are tighter than previously.

The usual amount of time given for pre-release access has been reduced from 24 to 21 hours. The lists themselves have been considerably shortened, with a maximum of 8 people from any one organisation being granted access to any release unless there are exceptional circumstances.

Accountability has been strengthened, with a top level official, normally the relevant Permanent Secretary, in each organisation where pre-release access is granted taking responsibility for the individuals given access in their organisation. This is in addition to the personal responsibility of each individual.

Requests for PRA use a standard template for each business case (see annex B). Departments are asked to allow 5 working days for approval of each business case by the ONS statistical Head of Profession, as approved by the National Statistician.

Within ONS, stronger controls have been introduced. All business cases are considered by the ONS statistical Head of Profession, who will make a recommendation to the National Statistician.

The full protocol is copied below.

PROTOCOL FOR PRE-RELEASE ACCESS TO ONS STATISTICS

The Pre-Release Access to Official Statistics Order 2008 permits the granting of pre-release access (PRA) to official statistics to the minimum number of persons, provided that strict criteria are met. The National Statistician may grant PRA to ONS statistics only where to deny such access would, in his opinion, significantly impede:

i. the provision of responses to questions, or making statements about statistics at or shortly after the time of publication of those statistics; or

ii. the taking of action before, at the time, or shortly after publication of those statistics.

In doing so, the National Statistician:

i. may only grant PRA to an "eligible person" under the terms of the Order;

ii. may only grant PRA if, in his opinion, the public benefit likely to result from such access outweighs the detriment to public trust in official statistics likely to result from such access;

iii. is required to restrict PRA to the minimum number of persons;

iv. may take into account any failure by an eligible person, in relation to a previous grant of PRA, to comply with the terms of the Order; and

v. may grant PRA subject to conditions.

The National Statistician is responsible for decisions on whether to grant PRA to statistics produced by ONS. In order to keep PRA to a minimum, consistent with the legislation, the following criteria for granting access will apply.

The number of individuals given access to any individual release may in specific circumstances exceed eight individuals but should be lower where practical.

Advance access will be given 21 hours prior to publication, i.e. at 12.30pm the day before publication of the statistics.

The relevant Permanent Secretary will provide written assurance each year to the National Statistician, confirming that any PRA remains necessary for valid reasons, and that the numbers given access remain at a minimum. Any changes in year would require a submission from the relevant Permanent Secretary to be agreed with the National Statistician.

Access will be given via the ONS secure portal. Individuals to whom access is granted will be required to sign a confidentiality statement. Procedures for protection of pre-released information from access by individuals other than those authorised to receive it will be subject to audit by the ONS security team.

The process will be fully transparent. As now, a list of the job titles of individuals granted PRA for each release will be published on the ONS website.

The National Statistician shall prepare and publish a report annually on PRA and the operation of these procedures.

This protocol relates to statistics published by ONS.

HOW DEPARTMENTS HAVE RESPONDED

Many Departments now have 8 or fewer officials in receipt of pre-release access, for each release. Although in some cases more than 8 officials within Departments continue to receive PRA to specific releases, data suggest that levels of access have been significantly reduced.

Departments have clarified who actually has access. Some Departments had previously understood that support staff (eg secretarial) were exempt from the formal list and were, therefore, omitted from some business cases. The exercise has clarified that all staff that have access to any release must be recorded. The consequence has been that a small number of departments' numbers have actually increased for some releases, but the benefit is that we now have more clarity regarding who actually has early access to the information.

The overall results of the exercise currently show:

- as at December 2016: **2,603** received PRA
- as at end March 2017: **1,572** received PRA

an overall reduction of 40%.

Within this overall figure there have been significant reductions in instances of pre-release access from the Home Office (79%; from 135 instances to 28), HM Treasury (by 41% from 460 instances to 273) and the Bank of England (by 61% from 185 instances to 72).

Figure 1 – Instances of pre-release access, by Department (Departments with more than 50 instances)
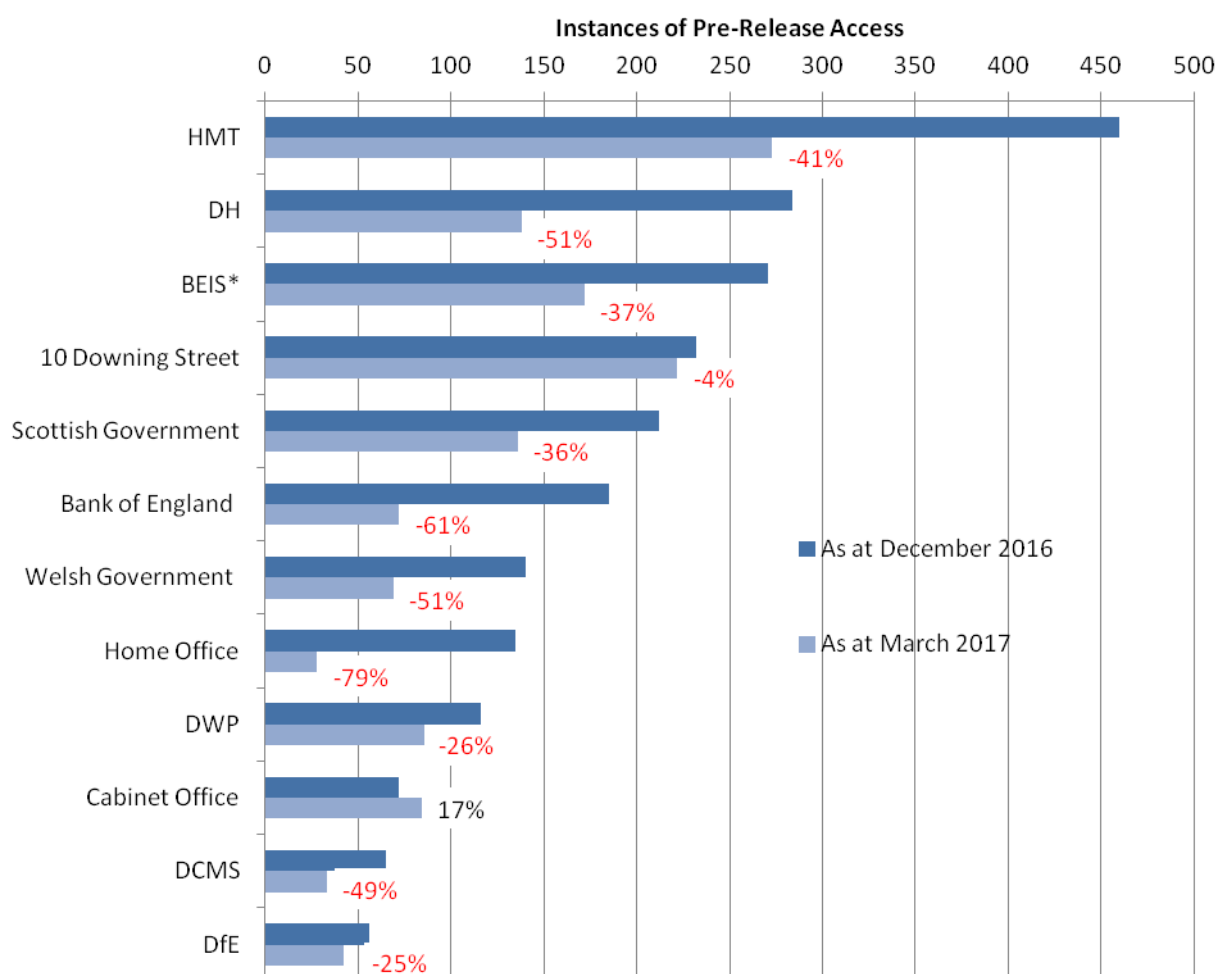
There have also been reductions in the number of people with early access to our most high profile releases: GDP preliminary estimate (29% reduction); Migration Statistics Quarterly Release (35% reduction). However, the decrease in access to Labour Market Statistics has been smaller (2% reduction)

Figure 2 – Instances of Pre-Release Access, by Statistical Release
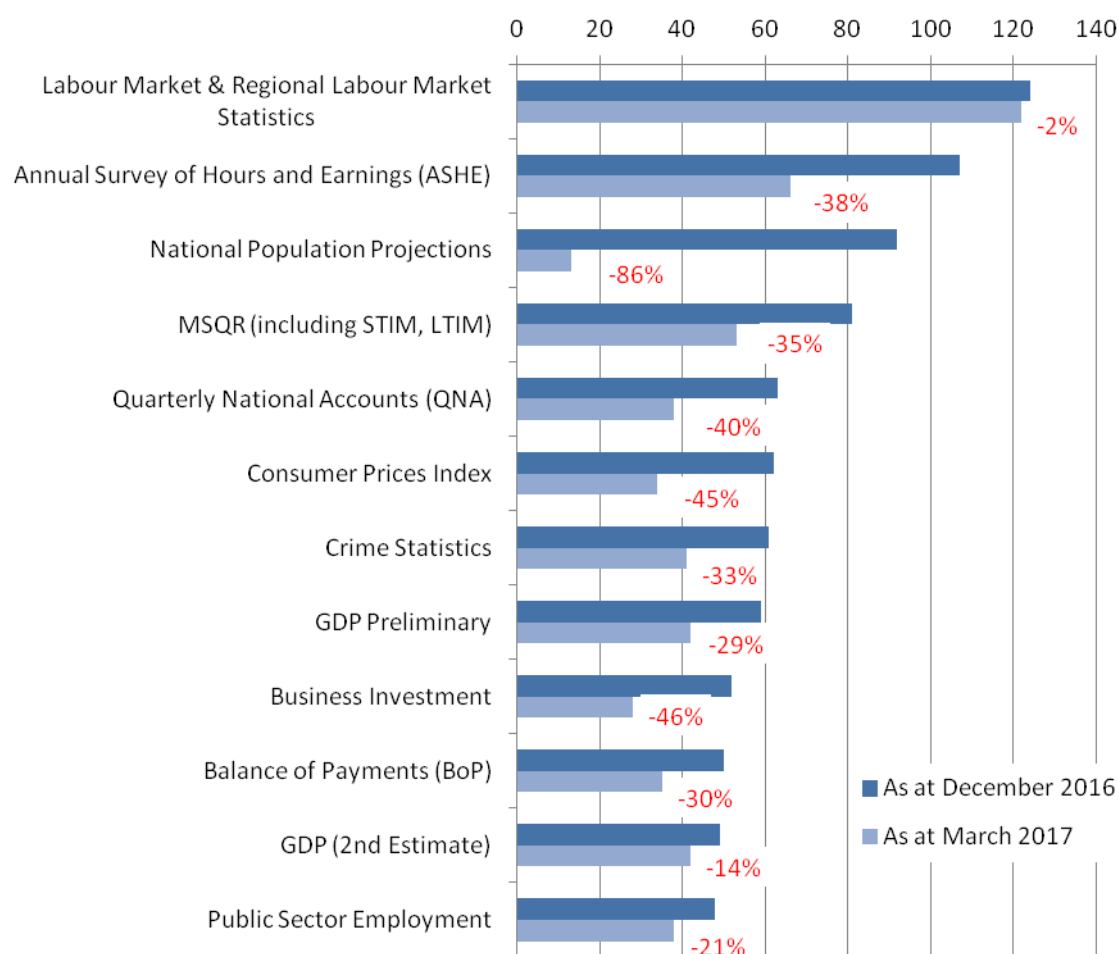
CONCLUSION

The number of instances of pre-release access to ONS statistics has reduced by around one third under these new provisions. The processes for ensuring that the minimum numbers of people that have PRA and relevant documentation in place have also been improved. Accountability has been strengthened, with top level officials taking responsibility for pre-release access.

We will wish to monitor whether the steps taken as part of this review have helped to address concerns around pre-release statistics, and whether the public benefit resulting from current levels of access can be said to outweighs the detriment to public trust likely to result from such access

John Pullinger CB CStat | National Statistician

Wednesday Morning Colleagues
Sent by email only

8 December 2016

Dear colleagues,

Reducing pre-release access to statistics produced by ONS

As some of you are aware, I have been concerned for some time about the number of individuals with pre-release access to official statistics. Current levels of pre-release access pose a significant risk. They increase the potential for leaks and inappropriate use of information. Perceptions of misuse also cause reputational damage for Ministers and civil servants, and reduce trust in the statistics we produce.

Following helpful discussions with several of you, and having agreed these changes with the Prime Minister, I now write to confirm that a new protocol for pre-release access to Office for National Statistics (ONS) statistics will be introduced on 31 January 2017. The protocol (attached at Annex A) will reduce levels of pre-release access to the minimum necessary to support the effective conduct of government business. It does so by introducing:

an expectation that current levels of pre-release access will be significantly reduced;

a maximum number of individuals in any one department who may be granted pre-release access to any one statistical release; and

a reduction in the access time from 24 hours to 21 hours (i.e. releases will be provided at 12:30 on the afternoon prior to release).

In introducing these conditions, the protocol is clear that Permanent Secretaries are accountable for the pre-release access arrangements in place in their own departments.
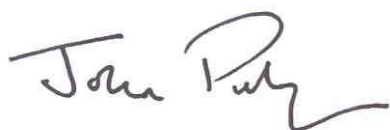
The new arrangements will begin on 31 January 2017, at which time all existing pre-release access to ONS publications will expire. I would therefore be grateful if you could review the names and roles of any individuals in your department who believe they require pre-release access to ONS releases, and submit an application for access by 6 January 2017 to my office via **pre.release.access@ons.gov.uk** (the form at Annex B sets out what details are required).

Once I have received these details my staff will review and, where necessary, provide access for individuals through a secure portal.

While the protocol refers to pre-release access to ONS publications, I am conscious that some of you will also wish to review access to the releases your own departments publish. Please do not hesitate to contact me if I can be of any assistance.

Yours sincerely,

John Pullinger

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Wednesday Morning Colleagues
Sent by email only

14 December 2016
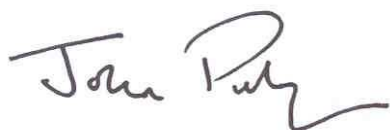
Dear colleagues,

Reducing pre-release access to statistics produced by ONS

At a meeting yesterday with all the Heads of Profession for Statistics, I had a useful opportunity to discuss my letter to you of Friday 9 December. They are all keen to work with you to do this carefully. But they made it clear that it would be much easier to do this with more time. I am, therefore, extending the deadlines by a month. Please send the application for access (**pre.release.access@ons.gov.uk**) by 10 February 2017. The new arrangements will begin on 1 March 2017.

I hope this is helpful.

Yours sincerely,

John Pullinger

1a. Department / Organisation name

1b. Name of Permanent Secretary (or equivalent) who is making this request

2. Name of release to which pre-release access is required

3. Name of statistical Head of Profession (HoP) or equivalent

3a. Please tick if the HoP has reviewed this request (Double click on box to mark yes) ☐

4. Why do you need pre-release access to these statistics?

Note that the National Statistician may grant pre-release access only where to deny such access would, in his opinion, significantly impede:

    i.   the provision of responses to questions, or making statements about statistics at or shortly after the time of publication of those statistics; or

    ii.   the taking of action before, at the time, or shortly after publication of those statistics.

Please give details, with reference to the Pre-release Access Order and the National Statistician's Protocol, why PRA is needed.

5. Do you require pre-release access to the next release only? Or is this request an ongoing requirement?

☐ Access to next release only   ☐ Ongoing access

If ongoing access is required, please state the reason for this

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6. Roles

List names and roles for which pre-release access is required.

Name*	Role	Justification

* Names will not be published, but a list of roles will be. Individuals to whom PRA is granted will be required to sign a confidentiality statement. Assurance that information obtained under PRA will be kept securely will be required.

7. Previous failure to comply with the Order

As required by the Order, when deciding whether to grant PRA, the National Statistician will take into account any previous failure to comply with the terms of the Order, or any conditions of access.

☐ I confirm that all of the names listed above have not failed to comply with the terms of the Order, or any conditions of access, for any previous grant of PRA. (Double click on box to confirm)

Or give details:

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8. Assurance from the Permanent Secretary

Please provide written assurance, including a signature, from the Permanent Secretary that the above pre-release access request is necessary for valid reasons, and that the numbers of people with access are at a minimum.

9. Date

Please email the completed request to Pre.Release.Access@ons.gov.uk

UK STATISTICS AUTHORITY

Note from the Authority Chair

Introduction

1. I thought I would set out some first thoughts following my introductory meetings with Board colleagues, John and senior management. It would be good discuss whether you agree with them and where we stand in addressing any issues that arise.

2. Overall, I feel I am joining an organisation that has made huge progress since its creation, with a strong Board and senior management. My comments should be read with that in mind.

3. Unusually, I've found a SWOT analysis helpful in thinking about this, though as often with these things many areas appear under more than one heading.

Strengths

   i. *the legal framework*: the statutory independence of the UKSA, supported by the regulatory function, is now generally accepted, thanks largely to my predecessors and Ed and John and their predecessors;
   ii. *the Digital Economy Bill* should open the way to major use of administrative data;
   iii. *the statistical heritage*: the UK has a rich store of data series and an established demand for quality data from government, analysts and commentators;
   iv. *people capability:* the senior management of ONS is stronger now than in the past;
   v. *integrity:* people in ONS, GSS and more widely in the Civil Service usually still have a strong drive to protect integrity in the provision and use of data and analysis;
   vi. *appetite for change:* top levels of management have a drive to change to deliver more relevant data, to look out rather than in, and to use the latest IT and sources; and
   vii. concerns about the stability of ONS output have diminished and its reputation is much stronger now.

Weaknesses

   i. *the legal framework:*

   - pre-release access remains a major concern, with its risk to trust and the potential for damaging leaks. Some heads of profession would argue that this time allows them greater access to Ministers and senior officials – but their access should not depend on such an arrangement;
   - the devolved structure of the GSS: this is a strength in the way that it keeps statisticians and data close to users and creates greater ownership. But
   - it is a weakness to the extent that it has led in some departments to a downgrading of statisticians; it may also risk gaps and incoherence in data collection;
   - an associated weakness is the risk that statistics will be transferred willy nilly to ONS from departments when there is a scandal of some sort, as with some crime data; there may be a case for transfers but in a thought out way;
   - a larger concern is that the plans for the use of administrative data have been difficult to progress;
   ii. the combination of the regulatory and production functions under the UKSA causes some external concern and perhaps some confusion; however I have seen nothing to suggest that the combination has led to underplaying of regulation – the opposite in fact;

iii. sources and IT: ONS has a major programme to move to greater use of administrative data and to modernise its IT; the first has been complicated by legal and other issues; there are strong plans for the second, but most delivery lies ahead;

iv. culture change has happened at senior levels but there is further to go with middle management and below; and

v. ONS should be seen as <u>the</u> centre of expertise about official statistics and data science and a key partner within government, with Turing and externally; we are not there yet.

Opportunities

4. As so often, the opportunities are in many ways the obverse of the weaknesses, including:

i. greater use of administrative data, with data base linkage, not just to replace the reliance on surveys, but to give new richness for example in building data around people's experiences and outcomes from contact with government and other services, rather than just providing transactional data;

ii. use of IT to give resilience, flexibility and timeliness in the provision of data; and

iii. the opportunity to put ONS at the heart of official statistics and data science and play a lead role in delivering a more joined up analytical function within government.

Threats

i. misuse of data: the regulatory role will need continued firm vigilance;

ii. resource:

- does the senior management team and particularly John have the capacity as now structured to manage a major change programme alongside other demands;
- will ONS be able to recruit people of the right calibre for the new roles;
- does ONS have the continuing budget that is needed;

iii. Brexit will absorb resource, even while allowing more flexibility;

iv. greater use of connected IT will increase the risk of cyber attack; good security and ethical use of data will be essential; and

v. delivery of the 2021 Census is a sine qua non for the continued role of ONS, as well of course as being essential in itself.

Priorities

5. Looking to the next few months my priorities will be, working with the Board, to:

i. meet key people within and outside the organisation and to get to grips with current issues;

ii. review current plans, short and longer term, to make sure we are clear as far as we can be what should happen when, with what resource, including use and prioritising of administrative data;

iii. understand whether senior management have the capacity to deliver the plans; and

iv. develop my role as ambassador for UKSA.

6. I look forward to our discussion.

Sir David Norgrove, Chair of the UK Statistics Authority, 21 April 2017

SA(17)13

Chief Executive's Report, March and April 2017

Purpose

1. This report provides the Board with an overview of activity and issues for March and April.

Summary

2. The Data Science Campus officially launched on 27 March 2016 giving the opportunity to showcase some of the innovative work which is already underway. We also took the opportunity to sign a memorandum of understanding with our counterparts in Statistics Netherlands.

3. Release of pre-announced statistics will continue as normal during the pre-election period.

Review of recent activities

4. Other important developments in recent weeks include the following.

    i.   203,000 invitations to take part in the Census test were sent to selected households. The online response system has maintained 100 per cent availability. 353 field staff are following up with households that have not responded.

    ii. On 6 March there was a jointly hosted Bank of England/ONS event on the Flow of Funds project. This was an opportunity to showcase the work so far - including the use the Bank of England is making of the work in monitoring financial stability - and also to set out our plans for the future. It was a well-attended event and received positive feedback.

    iii. The Digital Economy Bill completed its stages [in the House of Lords NB update with post wash up position]. This means that the end-2017 date for powers becoming fully operational is still on track.

    iv. New format for release of consumer prices statistics, including CPIH, introduced from March.

    v.   On 27 March 2016 we welcomed the Secretary of State for Wales, Alun Cairns, and the Minister for the Cabinet Office, Ben Gummer, to officially launch the Data Science Campus. Julie James AM, Minister for Skills and Science in the Welsh Government also spoke at the launch event. The event was attended by over 100 delegates from government, academia and business.

    vi. Four ONS business surveys are now online covering 38,000 businesses.

    vii. Working in partnership with the BBC, Press Association, the Telegraph and Trinity Mirror group, ONS has launched an internship in data journalism as part of our ongoing desire to invest in skills to provide rich statistics to inform decision making. The scheme will select 6 candidates to develop their skills working with leading data journalists for 4 weeks over the summer.

    viii. We have launched the GSS Policy Store. The policy store has been developed by the GSS Statistical Policies and Standards Committee and will provide a one stop shop for GSS wide policies.

    ix. The Department for Education (DfE) launched a consultation on their methods for analysing the link between family income and education. The work involved linking data from across the Department for Work and Pensions, HM Revenue and Customs and DfE to legally and ethically create a new dataset that allowed analysis of families

by income for those not currently eligible for pupil premium. The results show details of how the methodology was developed, a stress test adjusting for housing costs and analysis of geography, characteristics, access to schools and attainment. It also considers whether some groups can be defined as ordinary working families. This involved teams coming together from across the GSS to share expertise and knowledge. The consultation is live until 30 June 2017.

x.   On the day following the Westminster attack, departmental Heads of Profession were informed by the communications teams that no publications should be made from gov.uk for a 24 hour period. This extended to 16 pre-announced statistics. We therefore published all statistics that were pre-announced on the ONS back-up website so that they were still accessible to users.

xi.   The GSS Northern Conference took place in Leeds. We had presentations from various government departments over the course of the day. David Spiegelhalter's talk on the presentation of statistics was a particular highlight.

xii.   The first meeting of the Data Advisory Board took place on 13 March 2016. This meeting brings together Permanent Secretaries and other senior officials who will be able to help government match ambitions to make the best use of data.

xiii.   For the 2016/17 financial year ONS has reported a small underspend on our resource and capital budgets, which was the desired position.

xiv.   On the 28 March 2016 we held a workshop on planning and performance to assist with ONS business planning. Jonathan Haskell participated in the workshop to provide a non executive perspective. The actions from this workshop will ensure that we have the best management information, and at the correct level of detail, to make the best decisions.

Future look
5.   In the next few weeks we will focused on maintaining statistical outputs during the general election period. We will also be signing a memorandum of understanding with the Chinese National Statistical Institute.

John Pullinger, 21 April 2017

UK STATISTICS AUTHORITY

Report from the Director General for Regulation

Purpose

1. This paper provides an update on regulation activity since the last Board meeting.

Recommendations

2. Members of the Board are invited to note the activities and proposed actions.

Background

3. Use this section to summarise how this issue/project has emerged. Remember to reference key decisions taken, key players, and any prior involvement by the Board.

4. You should aim to keep this section to a minimum; ideally no more than three paragraphs.

Discussion

5. Key areas of activity have been:

    i. **Code:** thank you for the contributions to the Board workshops. We have revised the Code in the light of your comments. There is a separate agenda item on the revised Code of Practice at today's Board.

    ii. **Breaches of the Code:** following the terrorist incident at Westminster, following the terrorist attack at Westminster on 22 March, Heads of Profession received instructions from their departmental communications teams that no publications should be made from GOV.UK for a 24 hour period. As a result, some planned publications were not issued at 9.30am, contrary to Protocol 2, Practice 4: "Issue statistical releases at the standard time of 9.30am on a weekday, to maintain consistency and to permit time for users to understand and respond to the information during normal working hours". We published a summary and granted an exemption to producers who had not met the 9:30 deadline, in line with our standard practice. I also published the letter to place on record that, regardless of the reasons, it is inappropriate for Government communications teams to take decisions that prevent the publication of statistics. My letter therefore serves as a marker of the importance of this issue.

    iii. **Core regulatory activities:** we are in the final stages of our work on CPIH and student migration. We also published a think piece on crime statistics, which emphasises the potential of more linkage of administrative datasets and highlights the demand for better measurement of some types of crime, such as fraud and domestic abuse.

    iv. **Casework:** we have finalised a number of cases involving use of statistics in the last few weeks so that we have a clear inbox for the start of the Election campaign. These include two significant health cases: on misleading comparisons of Scottish and English health statistics by the Scottish Government's Minister for Health and on the confusing range of figures on 12 hour waits for Accident and Emergency admission.

    v. **Engagement:** in 2017 we have increasingly extended our engagement beyond the core statistical community. This has included discussion with a range of organisations interested in complying with the new Code on a voluntary basis; developing better links with the Electoral Commission and the Committee on Standards in a Public Life (see below on the General Election); and a dinner I organised with the Institute for Chartered Accountants in England and Wales on common links between the statistical and accounting professions.

6. The dashboard summary of regulatory activities is at **Annex A**.

Challenges

7. The General Election will be the main challenge for the Office for Statistics Regulation over the next few weeks. We expect to continue our practice of commenting on the use of statistics (which we adopted in both the 2015 Election and 2016 EU Referendum). We have built on our links with the Electoral Commission to confirm this intention and they have responded positively.

8. We expect to receive a range of queries about the way parties and candidates are using particular statistics. Most of the high profile interventions would be made by the Chair. We will also directly monitor the use of statistics and are willing to provide the Chair with clear statements should we ourselves identify egregious misuses. The challenge will be to respond quickly, with clear and succinct statements. In all of this we will ensure that we maintain the neutral stance that we adopted in previous electoral campaigns. This mix of speed and appropriate decision-making is demanding in resource terms and in terms of weighing up factors to reach the right judgements. I expect this to be my main focus until 8 June.

Ed Humpherson, Director General for Regulation, 21 April 2017

List of Annexes

Annex A   Regulatory Activities

Regulatory Activities March – April 2017

Economy	Health and social care	Business, industry, energy and trade	Crime and justice
• **CPIH Update:** Reviewing further evidence • **House Price Index:** Phase 2 assessment - preparations in train to kick off Phase 2 • **Regional GVA:** Assessment well underway since February- a number of meetings with stakeholders took place-initial; report to Reg Comm due in July • **Assessment of Public Sector Finances:** Paper prepared for the April Regulation Committee • **Casework on Government Expenditure and Revenue Scotland:** Response to person who objected to unfair criticism of GERS on social media	• **Systemic Review:** Preparation for 3rd Round Table to be held in May; devising a user survey to obtain a set of baseline views about confidence in the health and care statistics; finalising exit strategy; engaged ZPB to help complete stocktake of UK health and care statistics. • **Engagement:** Ed's health and care blog on leaked data, and comparative data across the UK.	• **Assessment:** UK trade, ONS are aiming to provide final evidence by June so we can make a decision on redesignation.	• **Systemic review:** liaising with producers to agree plans for Round Tables for early summer; paper published 6 April after incorporating comments from producers. • **Assessment:** Re-started assessment on Scottish Crime and Justice Statistics. ONS pulling together evidence for internal review of quality of police recorded crime statistics.
Labour market	**Housing, planning and local services**	**Children, education and skills**	**Agriculture and environment**
• **Migration:** Papers on student migration and the labour force survey (on reliability of foreign born workers employment rates in the face of falling response rates) have been prepared for the April Regulation Committee • **Benefit Sanctions:** Received response from DWP to our March letter, indicating how they are addressing the recommendations made by us, NAO and PAC. • **Income /Earnings:** Received response from ONS on their current progress and next steps. Scoping document on review of changing nature of employment prepared for April regulation committee. • **Child Maintenance:** Intend writing to DWP on their plans to improve methodology on direct pay child maintenance.	• **Housing Review:** Developed emerging findings from stakeholder engagement, and next steps for work which will be presented at April's Regulation Committee.	• **Domain news:** DfE HoP leaves to take up the post of Deputy National Statistician, Public Policy in June. • **Casework:** Two separate enquiries open. Access to UCAS data – intend writing to incoming chief executive; Accuracy of statistics in DfE press release on free schools – working on response. • **Schools and pupils:** HoP intends publishing update on plan to implement requirements of Assessment report on May 9.	• **Air pollution deaths statistics:** received response from Defra HoP to our Feb letter – expressed commitment to enhance presentation of statistics • **Defra systemic review:** met with Defra HoP to discuss ideas for small systemic review.
Population	**Culture and identity**	**Security, defence and intl relations**	**Travel, travel and tourism**
• **Student Migration:** See above	• No significant activity	• 2 QAAD workshops with MOD	• Reviewing NI tourism statistics final submission of evidence for meeting requirements.

SA(17)15

The Year Ahead and the Forward Agenda

Purpose

1. This paper sets the scene for the 2017/18 year including the key issues and agenda items for Authority Board consideration.

Recommendations

2. Members of the Authority Board are invited to:

    i.   note the business scheduled for this and for future meetings;
    ii. discuss and confirm the principles used for agenda planning at paragraphs 5 to 10; and
    iii. offer suggestions for future business, including stakeholder events and 'feature papers'.

Upcoming business

3. 2017/18 is the third year in our five year strategy and covers a crucial peak period of delivery as transformation picks up pace. Four of the key issues for this year are covered in agenda items which follow this paper.

    i.   New Code of Practice for Statistics [item 7].
    ii. Building Data Capability, including the Data Science Campus [item 8].
    iii. Plans to use new powers from the Digital Economy Bill to increase the use administrative data [item 9].
    iv. Plans to improve economic statistics, including via the Economic Statistics Centre for Excellence (ESCoE) [item 10].

4. Other key issues planned for future meetings are tentatively scheduled on the forward agenda at **Annex A**. These include the following.

    i.   Web dissemination, including future development of the ONS website, work to standardise data publishing across the Government Statistical Service (GSS) and the possibility of a single publication platform for all official statistics.
    ii. The GSS.
    iii. Devolution.
    iv. Brexit.
    v.   The Census.

Principles for agenda setting

5. Setting agendas is an iterative process which takes into consideration changing priorities throughout the year. Each meeting aims to achieve a balance between: production and regulation issues; 'rear view mirror' performance monitoring; forward looking strategic thinking and planning; and outside voices. Within that we have adopted some structural principles which help guide our planning.

External voices

6. In 2016 we arranged opportunities for the Board to bring external stakeholder perspectives to the boardroom and to build new relationships. These included:

    i.   a joint meeting with the HMRC Executive Board;
    ii. a session with the Sarah Healey, Director General of the Department for Exiting the EU;
    iii. a lunchtime seminar on migration statistics with a mix of government and non-government stakeholders; and

iv. a number of sessions with economic statistics stakeholders including Mark Carney, Charles Bean, Paul Johnson, Kate Barker, Ben Broadbent, Dave Ramsden etc.

7. Such stakeholder events require additional lead in time to arrange, so early suggestions for areas of interest would be particularly welcome.

Business planning

8. Last year we put additional emphasis on creating ways for the Board's focus on the longer-term horizon and the outside world to feed in to the annual planning cycle in a meaningful way. The cycle was as follows.

   i. At the beginning of the planning process (July), the Board helped to broaden the number of options, though a horizon scanning discussion.

   ii. During the autumn, the Board discussed strategic alternatives to help shape the preferred route. This comprised three separate sessions over three months, covering each of the three Deputy National Statistician areas of responsibility in turn.

   iii. At the end of the cycle the Board was provided with a draft business plan having shaped its development along the way.

Feature papers

9. Since November 2016, following an awayday of the non-executive directors, a new approach of commissioning 'feature papers' has been implemented, where non-executive directors have a chance to suggest topics for discussion and raise questions in advance. The first four topics agreed for this treatment were:

   i. Data Science Campus;
   ii. Stakeholder Management and Communications;
   iii. Electronic Data Collection; and
   iv. Workforce Transformation.

10. We have now reached the end of this series of feature papers and suggestions for the next topics for this treatment are welcome. A further discussion of potential topics can take place at the next non-executive awayday in May.

Conclusion

11. Members of the Board are invited to reflect on these suggestions, both now and at the end of the meeting.

Joe Cuddeford, Secretariat, 21 April 2017

List of Annexes

Annex A   Authority Board draft forward agenda

Annex A   Authority Board draft forward agenda

22 May 2017 (London)
Future of web dissemination
The Government Statistical Service
New Code of Practice for Official Statistics
Brexit (TBC)
Feature paper: TBC

29 June 2017 (Titchfield)
Devolution
The Census
New dynamic format for the Integrated Performance and Finance Report (TBC)
Feature paper: TBC

20 July 2017 (London)
Joint session with the National Statistics Executive Group
Annual Horizon Scanning
Potential stakeholder seminar: "Measuring the Civil Service" TBC
Feature paper: TBC

28 September 2017 (Belfast – with Board dinner with stakeholders the night before)
DG Business Planning: Economic Statistics
Feature paper: TBC

24 October 2017 (London)
DG Business Planning: Population and Public Policy
Feature paper: TBC

30 November 2017 (Newport)
DG Business Planning: Data Capability
Feature paper: TBC

UK STATISTICS AUTHORITY

Code of Practice: Beyond the Stocktake

This document will be published on the UK Statistics Authority website in due course.

The document will be available at:

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

UK STATISTICS AUTHORITY

Building Data Science Capability through Research

Purpose

1. This paper provides an update on the development of data science capability within ONS through active research activities within the Data Science Campus (DSC) and elsewhere.

Recommendations

2. Members of the Authority Board are invited to note the update and discuss the challenges outlined at **Annex A,** which are:

    i.   Senior Recruitment: The recruitment of Grade 6 Senior Data Scientists has proved challenging due to a scarcity of candidates that meet both the data science requirements of the position and the broader competencies required at this level.

    ii. Funding: The development of a sustainable Business Development strategy to ensure the success of the DSC beyond its initial two year funding as approved under the 2015 Spending Review Settlement remains a high priority.

    iii. Governance: We have recently reviewed office wide data governance structures. We are considering options for independent oversight of DSC activities; both analytical and academic. Projects are subject to review by the National Statistician's Data Ethics Advisory Committee. We would welcome the Board's thoughts on independent oversight of the academic programme.

Background

3. In July, progress with developing the DSC was outlined to the Authority Board, and the Board was invited to advise on the proposed areas of focus for research activities within the DSC. In December, a paper about plans for improving Data Capability was discussed, and the Board was further informed that research activities within the DSC had commenced.

4. The Government Data Science Partnership (GDSP), a collaboration between ONS, the Government Digital Service (GDS) and the Government Office for Science (GO-Science), defines data scientists as those who "solve complex business problems using a combination of domain expertise, coding knowledge, machine learning and statistics skills on large and varied datasets".

5. The analysis required in a data science role is primarily delivered by the four Government analytical professions (statisticians, economists, operational researchers and social researchers). Within ONS data scientists are typically members of the statistical profession, with a specialisation or background in data science skills and techniques. However the need for data science skills is not limited to dedicated data scientists, and data science itself should be viewed as broad toolkit, rather than a narrow specialisation. In setting out a vision for building data science capability within ONS, it is necessary to produce a framework that meets the needs of both the analytical professions and data science users from outside these professions.

6. Within the GDSP partnership, two key ONS teams have responsibility for promoting and developing data science skills not only within ONS but across UK government as a whole, the Data Science Campus (DSC) and Learning Academy (LA).

7. Building data science capability within ONS is accomplished by these teams through three interlocking stands of activity:

    i.   Knowledge Pathways, led by the Data Science Campus;

    ii. Learning Pathways, led by Learning Academy; and

    iii.   Career Pathways, led by Learning Academy.

Discussion

Knowledge Pathways and Research

8. Knowledge Pathways focus on the identification, assessment and adoption of new data science techniques, tools and data sources. The primary driver of these activities is research.

9. Research activity is led by the DSC through five themed research programmes focusing on the Modern Economy, the UK in a Global Context, Society, the Urban and Rural Future and Sustainability. Research is delivered through short focused projects, undertaken by multi-disciplinary teams in collaboration with external academic, industry and government partners to ensure constant access to leading edge approaches and technologies.

10. External research activity is supported by the DSC through the co-funding of PhD and MSc research in partner universities, including Cardiff University and University of Lancaster. A co-funded PhD with Alan Turing Institute is in development for launch in September 2018.

11. Further data science research is undertaken across the ONS. The Big Data Team (BDT) within Methods, Data and Research (MDR) has conducted research activities since 2014 with a focus on the production of official statistics. Public Policy Analysis (PPA) has recently formed a 12-month partnership with an external industry leader to undertake a series of joint research projects.

12. Research activity outputs include analyses, new tools and technology, and new methodologies. Typically these outputs are classified as lying within the Alpha phase of development. Code and techniques developed during research are also captured and made available through open resources and repositories, like Git Hub.

13. Outputs must then be assessed by relevant structures within ONS to determine suitability for wider dissemination and adoption in to mainstream ONS practices. Tools and technology are currently assessed by Design Authority, and if suitable ownership may be assigned to BDT and Digital Services and Technology (DST) to operationalise and scale. Methodologies will be assessed by MDR and a suitable common doorway practice will be developed.

Learning Pathways and Career Pathways

14. Once approved for adoption, new tools, techniques and methodologies will be disseminated across ONS through the Learning Pathways framework. The Learning Academy, in partnership with DSC, has developed a series of learning modules in a 'toolkit' approach, to facilitate both dedicated data scientists, and wider users who wish to develop data science skills. To encourage the wider adoption of data science skills within ONS, staff need to have clear career paths and roles associated with these skills. The Learning Academy is building multiple Career Pathways which link to the Learning Pathways. Further exploration of these pathways can be found in **Annex B**.

Conclusion

15. With the formal opening of the DSC, ONS has established itself as the primary hub for data science capability within government, and seeks to place itself at the leading edge of the data science community with the UK and beyond. Through membership of the GDSP and support of cross-government data science initiatives such as the Accelerator and Exemplar programmes (as outlined in Annex B), the DSC is enabling data science research across government. As the DSC grows towards 60 staff by End of Year 2018, the outputs delivered by the DSC will significantly increase and dissemination resources

will scale accordingly, both within ONS and across government through GSS. Further exploration of DSC progress to date can be found in Annex A.

16. While the primary focus of capability activities is to better equip ONS and wider government to deliver better decisions, it should be noted that strong research outputs, the caliber of learning and development programmes, the reputational strength of the ONS and the development of world-class delivery facilities all enable significant revenue opportunities through the provision of data science capability programmes to external public and private sector clients.

David Johnson, Pam Davies, Gareth Clancy, Paul Littler, 21 April 2017

Annex A   **Data Science Campus Progress Update**
Annex B   **Learning and Career Pathways**
Annex C   **Knowledge Pathways flowchart and Learning Pathways modules**

Annex A   Data Science Campus Progress Update

Challenges

1. The development of the Data Science Campus (DSC) has progressed in line with agreed business plans. Based on experience to date, the DSC leadership team is focused on addressing a number of challenges as it further develops its longer term business plans:

    i.   Senior Recruitment: The recruitment of Grade 6 Senior Data Scientists has proved challenging due to a scarcity of candidates that meet both the data science requirements of the position and the broader competencies required at this level.
    ii. Funding: The development of a sustainable Business Development strategy to ensure the success of the DSC beyond its initial two year funding as approved under the 2015 Spending Review Settlement remains a high priority.
    iii. Governance: We have recently reviewed office wide data governance structures. We are considering options for independent oversight of DSC activities; both analytical and academic. Projects are subject to review by the National Statistician's Data Ethics Advisory Committee. We would welcome the Board's thoughts on independent oversight of the academic programme.

Operational status

2. On 27 March 2017, the Data Science Campus (DSC) held its formal opening in its new facilities at the ONS headquarters in Newport, South Wales, attended by Cabinet Office Minister Ben Gummer MP and Secretary of State for Wales Alun Cairns MP.

3. As of 1 April 2017 there are 26 FTE working in the DSC, with 19 in research positions.

Capability

4. An Apprenticeship in Data Analytics was launched in the DSC in November 2016. Developed by the Learning Academy (LA) under the Welsh Government's Apprenticeship scheme, this two-year vocational training programme at EO level leads to a Level 4 Diploma in Data Analytics and is the first of its kind in the UK. Over 130 applications were received and 8 candidates were selected for the first cohort. The second cohort is currently being recruited for positions across ONS and Welsh Government, and the Learning Academy will expand the programme to England later in 2017.

5. The LA, DSC and ONS Commercial Services teams have developed the Framework and Specifications for an MSc in Data Analytics for Government, with a dedicated Data Science pathway. The first group of successful providers, University College London, University of Southampton and Oxford Brookes, was announced in March 2017.

6. The DSC will provide funding for a number of ONS and other public sector workers to undertake the MSc in Data Analytics for Government (Data Science pathway). In advance of this dedicated programme, sponsorship was made available to three ONS staff and further four non-ONS public sector workers under the GSS framework to undertake existing MSc courses from September 2016.

7. The DSC has partnered with the Government Digital Service (GDS) and the Government Office for Science (GO-Science) through the Government Data Science Partnership (GDSP) as the South West hub in the Data Science Accelerator cross-government training programme. DSC data scientists mentor participants drawn from the analytical professions across the public sector over a series of three month intakes, with participants spending one day a week at the DSC or with GDS in London. DSC data scientists also mentor a range of high-impact data science projects in other government departments identified through the cross-government exemplar programme.

8. Research activity commenced on 19 September 2016. An initial Discovery-phase rapid prototyping project was launched with an internal ONS partner, the Sustainable Development Goals branch (SDG) which allowed DSC to test its research processes with key internal data partners before commencing collaborative research projects with external Academic, Industry, Third Sector and Other Government Department partners.

9. Four core data science research projects are currently underway in the areas of Tourism with DCMS, the Fishing Industry and Economic Deprivation, Urban Forestry and Natural Capital Audit, and Calorific Intake and Obesity, all with DEFRA. A further rapid prototyping project on Employment Resilience is also underway on behalf of Cabinet Office.

10. In late February 2017 a Senior Data Scientist (G6) joined DSC from ONS National Accounts, to lead research in Economic Statistics. The first four economic statistics projects have now been scoped and research activity in this area is underway.

Partnerships

11. Memoranda of Understanding have been signed with a number of research partners, with specific areas of research currently being agreed as part of the Research Roadmap process. MoUs have been agreed with The Alan Turing Institute; Statistics Netherlands; University of Bath; Cardiff University; Lancaster University, Data Science Institute; University of Manchester; Data Science Lab at Warwick Business School, and the Consumer Data Research Centre (CDRC).

12. Research partnerships with a number of national and devolved government departments and agencies are also underway, including Cabinet Office, DEFRA, DCMS, DFiD, HSE and Welsh Government. In addition, the DSC is a core member of the new UK Government Earth Observation Service (UK-GEOS).
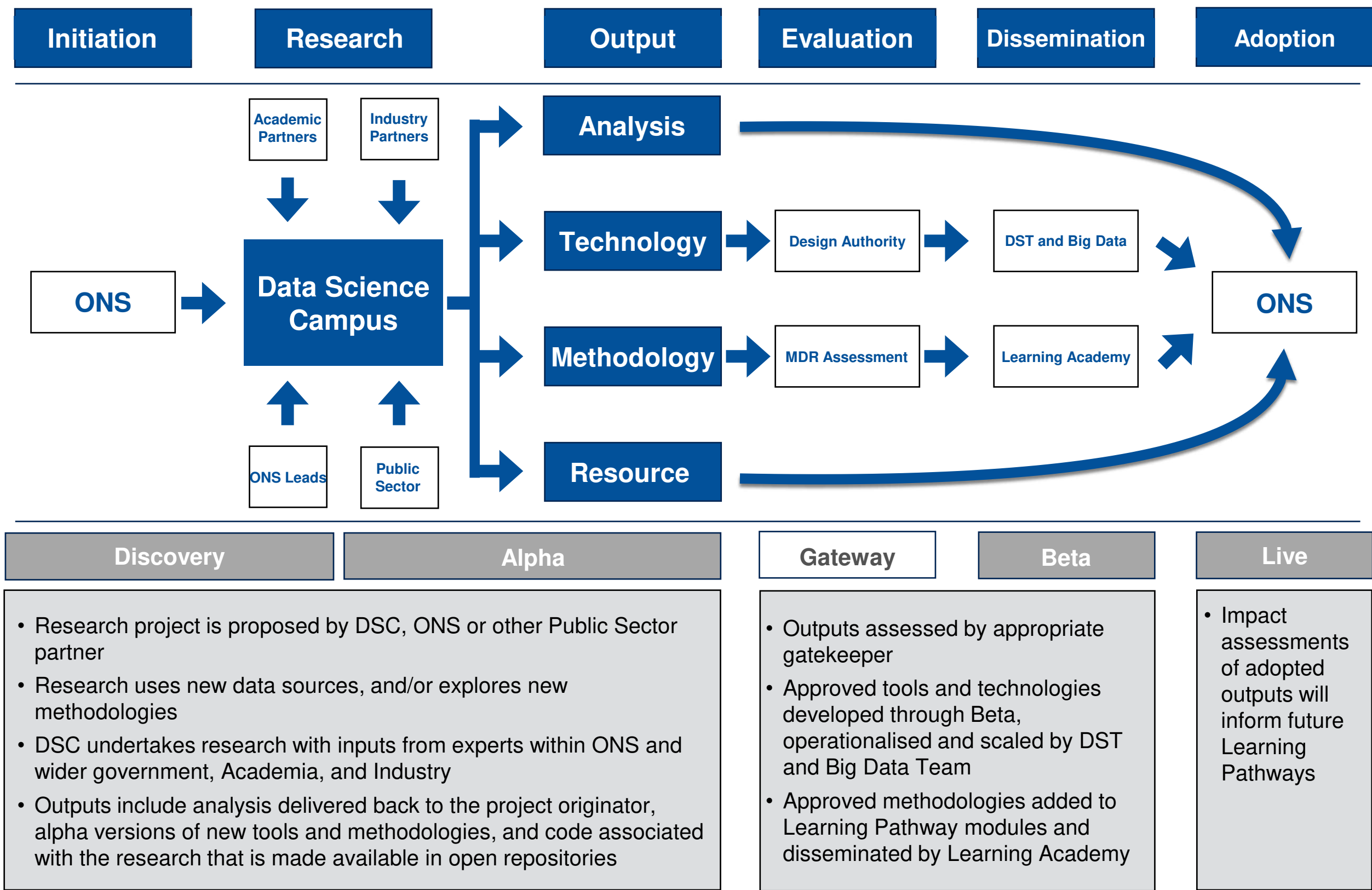
Promoting Data Science

13. The DSC has a central role within the Government Data Science Partnership (GDSP), leading ONS support for the Government Data Board and mentorship of government projects identified as Data Science Exemplars, and working with the ONS Big Data Team and GDS on the inaugural Government Data Science Conference in London on 24 April 2017. With its GDSP partners, the DSC is also on the steering committee of the 2017 Data for Policy conference, to be held in London in 6 to 7 September 2017.

14. As part of its research partnership with the Alan Turing Institute (ATI), a one day workshop was held at ATI on 12 January 2017, presenting an overview of core research activities to ATI members. On 21 to 22 June 2017 a two day "Data Dive" with ATI and Cabinet Office Policy Lab will be held, bringing together over 50 academics from across the ATI membership with DSC data scientists and ONS sectoral experts to undertake rapid data explorations in the area of 'Urban Analytics'.

15. In association with ONS international Development, a proposal for a partnership with the National Institute of Statistics Rwanda (NISR) on data science capability and research is in development. This would create the framework for an in-country Data Analytics Apprenticeship Programme that could be launched by developing world NSIs with limited need for ongoing support by ONS.

16. Two DSC papers have been accepted for presentation at the 61st ISI World Statistics Congress in Marrakech from 16 to 21 July 2017, on "How the UK Office for National Statistics is Embracing Data Science", and "Developing a Digital Tool for the Office for National Statistics to report on the UN Sustainable Development Goals".

Annex B   Learning and Career Pathways

1. The Learning Academy was established in early 2016 to provide ONS with a centralised learning and development service.

2. The Learning Academy, in partnership with DSC, has developed a series of learning modules in a 'toolkit' approach, to facilitate both the statistician and data science career paths within the Statistical profession and data science users from outside the profession.

3. To encourage the wider adoption of data science skills within ONS, staff need to have clear career paths and roles associated with these skills. The Learning Academy is building multiple Career Pathways which link to the Learning Pathways.

4. Statistician and Data Science career paths within the Statistical profession set standards for entry and expectations for the skills required at different points in a career. The alpha versions of these are being user tested in ONS and across the GSS in April and May 2017.

5. Adopting a modular approach enables Learning Pathways that assess data science capability as set out in the Government Statistician Group (GSG) Competency Framework (Data sourcing/data management; Data analysis; Presenting and disseminating data; Working with credibility). [Please see **Annex C** for an outline of this approach.]

6. A series of courses, some of which require development, underpin each of these headings and are accessible to staff across ONS and wider government, creating a wide range of opportunities for the workforce to increase its data science capability. Course content is delivered by LA either directly from within its team of dedicated trainers, by data science experts across ONS, or through appropriately qualified external providers. Evaluation processes are rigidly adhered to, ensuring the intended learning outcomes are met.

7. The Level 4 Data Analytics apprenticeship launched in November 2016 has created a cohort of associate statisticians who are being placed on the starting point of the Statistician's career and learning pathways. They will be able to continuously upskill throughout their career and advance into the GSG either through the Learning Academy Learning pathway or entering onto the Level 6 (degree) apprenticeship being launched in late 2017. Alongside this, eligible staff are being encouraged to build the analytical skills promoted by these career paths through the ONS Analysts' Strategy, which is steering more ONS staff towards the recognised government professions.

8. Formal accredited learning for ONS and other government data scientists will be provided from September 2017 through the approved Data Analytics for Government MSc, delivered through University College London, Oxford Brookes University, and Southampton University. Additional providers will be added to this framework in 2018. Other data science MSc programmes provided through a range of approved academic bodies, and one-off modules for Continuous Professional Development (CPD) will also be made available. Funding for ONS staff to undertake both MScs and CPD is available through the DSC.

9. Working with ONS Digital, Learning Academy are developing a technical path to build the computer science side of data capability in a similar model. This offers staff the options of following a data science technical path rather than a data science analytical path.

10. In the medium term, the Learning Academy will undertake data science needs assessments across ONS and, with DSC, evaluate these learning needs and both

review the current courses on offer and design and pilot new activities. Course content will also be regularly updated with approved outputs from the Knowledge Pathways.

Knowledge Pathway, Data Science Campus

Initiation	Research	Output	Evaluation	Dissemination	Adoption

Academic Partners → **Data Science Campus** ← **ONS Leads**

Industry Partners → **Data Science Campus** ← **Public Sector**

ONS → **Data Science Campus**

Data Science Campus →
- **Analysis** → **ONS**
- **Technology** → **Design Authority** → **DST and Big Data** → **ONS**
- **Methodology** → **MDR Assessment** → **Learning Academy** → **ONS**
- **Resource** → **ONS**

Discovery	Alpha	Gateway	Beta	Live

Discovery / Alpha
- Research project is proposed by DSC, ONS or other Public Sector partner
- Research uses new data sources, and/or explores new methodologies
- DSC undertakes research with inputs from experts within ONS and wider government, Academia, and Industry
- Outputs include analysis delivered back to the project originator, alpha versions of new tools and methodologies, and code associated with the research that is made available in open repositories

Gateway / Beta
- Outputs assessed by appropriate gatekeeper
- Approved tools and technologies developed through Beta, operationalised and scaled by DST and Big Data Team
- Approved methodologies added to Learning Pathway modules and disseminated by Learning Academy

Live
- Impact assessments of adopted outputs will inform future Learning Pathways

Learning Pathway Modules, Learning Academy

	Acquiring Data/Understanding needs	Data Analysis			Presenting and Disseminating Data	Working with Credibility
	Data Management	Traditional Statistical Methodology	Data Science Methods Non-parametric	Computing Skills	Data Visualisation	Approaches
Raising Awareness Level	- Consultancy Skills - Art of the Possible - Big Data & Data Science Explained - Awareness of administrative data acquisition		- Random Forests & Boosting Trees - Deep Learning - Neural Networks - NLP - Network Analysis - Pattern Recognition & Machine Learning - Cluster Analysis (raising awareness workshops)	- R and Python show and Tells	- Data Visualisation Skills - Communication Skills	
Core Skills - Embed	- Data Sourcing - Webscraping and APIs - Data mining (imputation, outlier detection etc) - Introduction to SQL and NoSQL - Data Streaming	- Statistical Inference - Exploratory Analysis - Regression Analysis - Time Series - Sample Design & Estimation - Index Numbers (introductory courses)		- R - ggplot - Python - Spark bindings - Scala - Tableau/Terra data/Pentaho (to pick one) - Programming good practice - Markdown, github, optimisation - Hadoop stack	Computing Skills: - Shiny/Bokeh/React - D3 - Web stack	- Ethics
Specialisms - Expert		- Statistical Inference - Exploratory Analysis - Regression Analysis - Time Series - Sample Design & Estimation - Index Numbers (MSc courses)	- Random Forests & Boosting Trees - Deep Learning - Neural Networks - NLP - Network Analysis - Pattern Recognition & Machine Learning - Cluster Analysis (MSc modules)	- Optimisation - Advanced R - Advanced Python - Package development - Docker		

UK STATISTICS AUTHORITY

Using ESCoE to support Economic Statistics Transformation

Purpose

1. This paper provides a forward look at the current plans to improve Economic Statistics through initiatives such as the Economic Statistics Centre of Excellence and our research programme.

Recommendations

2. Members of the Authority Board are invited to comment on the strategic direction of the Economic Statistics transformation and the current plans to improve Economic Statistics.

Background

3. This paper builds on the update provided to the UK Statistics Authority in October 2016 which outlined the overarching direction for Economic Statistics as described in the Economic Statistics Analysis Strategy. This paper lays out the plans for improving Economic Statistics with a particular focus on how our research programme will drive future change.

Discussion

4. As outlined in the draft Economic Statistics and Analysis Strategy (ESAS) published on 4 April 2017[1], our vision is that ONS will have **inquisitive** experts providing users with **insightful, innovative** economic statistics and analysis. This new draft includes refined priorities, key successes and future work and is currently out for consultation following a launch at the April Economic Forum. The identified key issues and priorities for the future evolution, measurement and understanding of economic statistics are:

    i.   The modern economy and National Accounts
    ii. Trade and international statistics
    iii. Devolved, regional, and local statistics
    iv. Productivity and the supply of labour and capital
    v.   Prices
    vi. Beyond GDP – broader measures of welfare and activity

5. The milestones for the transformation of economic statistics have been grouped into four themes illustrated in Figure 1[2]. These theme provides a focus to drive success at multiple levels, including:

    i.   *fixing the foundations* through projects such as the automation of quarterly and double deflated Supply/Use Tables;
    ii. improving the current statistics we produce by regaining the National Statistics badge for our Trade, CPIH and Construction badges;
    iii. updating the data sources we use and reduce our reliance on surveys, through development such as incorporating VAT into the National Accounts;
    iv. widening the range of statistics we produce by enhancing and producing new statistics in areas such as Regional statistics and Enhanced Financial Accounts
    v.   addressing new issues in economic measurement including further work on the Productivity Puzzle and carrying out new research on the digital economy;

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[1] Available via

https://www.ons.gov.uk/methodology/classificationsandstandards/economicstatisticsclassifications/economicstatisticsandanalysisstrategy

[2] The key milestones for the transformation are show in a table in Annex A.

<ol type="i" start="6">
achieving a workforce transformation to better serve stakeholders by designing how working in Economic Statistics will look in the future whilst increasing our London Presence, continuing our economist and analyst recruitment, and working with the Data Science Campus and Learning Academy to introduce Data Apprenticeships; and
better horizon-scanning and researching of new and rising issues by working more with external partners through initiatives such as the Economic Statistics Centre of Excellence (ESCoE), ONS Fellows and the Economic Experts Working Group (EEWG).

Figure 1: Key Themes for the Transformation of Economic Statistics

6. As part of the work we are currently undertaking to design the future operating model for Economic Statistics we have designed a production cycle which brings research and collaboration into the heart of designing our ongoing transformation and improvement projects as show in Figure 2.

Figure 2: Cycle for the Transformation of Economic Statistics

7. As can be seen from Figure 2 the basis for the cycle is listening to our stakeholders and horizon scanning for new opportunities and challenges which need to be addressed through our research programme. The ONS and wider economic statistics community currently face significant challenges and opportunities in light of rapidly changing technologies, which raise a host of conceptual issues around measuring economic activity and which are revolutionising the ways in which economic statistics can be compiled. A key part of our strategy to meet this challenge is the establishment of the new **Economic Statistics Centre of Excellence (ESCoE)** which aims to:

   i. deliver research that enables ONS to meet its vision of delivering world-class economic statistics in this environment;

   ii. deliver dissemination mechanisms to bring international expertise to bear on ONS objectives;

   iii. develop collaboration between ONS and the research community, offering the capacity for fundamental methodological and conceptual work that will feed into the development and improvement of ONS economic statistics and data processing methodologies; and

   iv. and to provide an environment for the development of a wider research community with skills and research experience in economic statistics, building the next generation of academic experts in this field.

8. ESCoE operates as a network of researchers and institutions carrying out research run from a single physical centre based at the National Institute of Economic and Social

Research (NIESR[3]). The research will be delivered via three mechanisms: first and foremost via the core programme, but also via ad-hoc project support to ONS, and additional contractual research to augment and reinforce the core mission of the ESCoE. ESCoE will be supported by 30+ senior academics, working with junior researchers and 5 ESCoE PhD studentships, in collaboration with ONS. The wider objectives of the ESCoE are further supported by its international network of experts.

9. The core research programme for the period to end 2018-19 is outlined in Annex B. As shown there the core research programme is currently organised in thirteen projects under three broad work streams: National Accounts and Beyond GDP, Productivity and the Modern economy, Regional and Labour Market statistics. Each of the thirteen projects is headed by senior academics, tasked with ensuring that the research is carried out to world-class standards and helping to re-establish statistical enquiry as an important research topic in economics.

10. Most projects cover several of the themes listed in the ONS Economic Statistics and Analysis Strategy (ESAS), which are interdependent and overlapping. Together the thirteen projects include research under each ESAS theme addressing many, but clearly not all, of the detailed priorities listed there. ESCoE's research programme also offers research in areas that are not detailed in the ESAS, but which sit very well within the overarching vision of economic statistics transformation. For example, international migration statistics are currently in high demand by users of UK economic statistics. The research programme also includes work on better communicating to users and commentators the uncertainty and limitations around economic statistics, in direct response to recommendations in the Bean Review.

11. Having achieved the challenging objective of set-up by early April 2017, the ESCoE will begin to deliver against its main aims in the year ahead. Key milestones for 2017-18 include delivery of research outputs on almost all projects (see Figure 3), some of which will be published as ESCoE Discussion Papers. The target is to publish 25 research papers (ESCoE funded and other) in the ESCoE Discussion Paper series in 2017-18. Helping to bring international expertise to bear on ONS objectives, ESCoE has already arranged three research visits from its expert network in the next 3 months. In terms of capacity building, the ESCoE aims to have three PhD studentship starting in autumn 2017 (one of these to be hosted by Warwick Business School and another two by King's College London) and to arrange two secondments to the ESCoE. Secondments will likely be shared with ONS, strengthening collaboration between ONS and the wider economic statistics community. The ESCoE will also this year begin to contribute to ONS objectives of valuing economic statistics. It is our hope that case study material produced for these purposes will be useful also in developing teaching materials. Years 3-5 of the research programme will be co-designed in the light of revisions to ESAS.

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[3] ESCoE is made up of a consortium of leading institutions led by the National Institute of Economic and Social Research (NIESR) with King's College London, innovation foundation Nesta, University of Cambridge, Warwick Business School (University of Warwick) and Strathclyde Business School.

Figure 3: ESCoE deliverables

Centre Year and Calendar Quarter End		ESCoE Work Stream and Project Number												
		National Accounts & Beyond GDP				Productivity & the Modern Economy					Regional & Labour Market Statistics			
		1.1	1.2	1.3	1.4	2.1	2.2	2.3	2.4	2.5	3.1	3.2	3.3	3.4
YEAR 1	2017 Q2			***					*			*		
YEAR 1	2017 Q3			*		*			*	*			*	
YEAR 1	2017 Q4	**		*		*			**		*	*		*
YEAR 1	2018 Q1		**	*	**		**		***			**	*	*
YEAR 2	2018 Q2	**	**	*				**			*			
YEAR 2	2018 Q3			*		**				*		*	*	*
YEAR 2	2018 Q4				*	**			*	**	*	**	*	
YEAR 2	2019 Q1		*		*	*	**					**	*	*
YEAR 3					*		*			*	*		**	***
YEAR 4								***						
YEAR 5														

12. In addition to the research programme being carried out with ESCoE, we are also carrying out other research projects, which are detailed at **Annex B**.

13. In addition to carrying out the research programme, ESCoE will also work with ONS to embed the process of bringing research and collaboration into the heart of improving Economic Statistics by:

    i. **sharing and influencing best practice** through a series of discussion papers, visits from international experts, the annual ESCoE conference and the ESCoE website;

    ii. a **collaboration between ONS and the research community** through joint working on projects, secondments and open data challenges; and

    iii. **building capacity** through sponsoring PhD studentships, support for junior researchers, seminars to encourage use of new data sources, courses in applied economic statistics and embedding economic statistics in the academic curriculum.

14. As an illustration of how ESCoE aims to bring leading academics and practitioners together, the first ESCoE seminar will be hosted at NIESR on 2 May, as per the agenda laid out in Box 1. Board members are invited to attend. Leonard Nakamura (Federal Reserve Bank of Philadelphia) will also be repeating his talk on 'We See the Digital Revolution Everywhere But in GDP' for ONS staff at the Newport office on 3 May.

Box 1: First ESCoE Event

Measurement in the Modern Economy
Tuesday 2 May 2017 from 4.30pm

2 Dean Trench Street, Smith Square, London, SW1P 3HE.

16:00   Registration

16:30   **Introductions** by **Jonathan Athow**, Deputy National Statistician and Director
              General, Economic Statistics, ONS, and **Rebecca Riley**, Director, ESCoE

16:45   Presentations

              A Democratic Measure of Income Growth by Professor **Martin Weale**, King's
              College London

              We See the Digital Revolution Everywhere But in Real GDP by **Leonard
              Nakamura**, Federal Reserve Bank of Philadelphia

              Decomposing Value Added Growth into Explanatory Factors by Professor
              Erwin Diewert, Vancouver School of Economics, University of British Columbia

17:45   Discussion

18:25   Refreshments

Conclusion

15. The plans for improving Economic Statistics are considerably more advanced since the
last update provided to the Board in October of 2016. There is a clear research
programme which supports the priorities laid out in the Economic Statistics and Analysis
strategy, the core of which will be delivered through the newly established Economic
Statistics Centre of Excellence, with research in a number of projects already underway.
The outcomes of the research programme will be combined with a wide range of other
improvement work underway within ONS to deliver the required transformation of
Economic Statistics.

Rebecca Riley, Director of Economic Statistics Centre of Excellence
Frankie Kay, Director of Economic Statistics Transformation
28 April 2017

List of Annexes

Annex A   **Key Milestones for the Economic Statistics Transformation**
Annex B   **Research Programme**

Annex A   Key Milestones for the Economic Statistics Transformation

Theme	2017-18	2018-21
Rich data sources	**Apr:** New, outsourced data collection for services (SERVCOM) contract awarded **Dec**: VAT data used in National Accounts	**Sept 19**: PAYE, Corporation Tax and EU sales data used in National Accounts
Capable, helpful and professional people	**Ongoing** programme of research through ESCOE to horizon-scan and identify new methods and techniques **Ongoing** restructuring towards new workforce plan, including recruitment of analytical skills and development of internal staff	**Sept 19** First ESCOE projects reach completion for input into next planning wave **Sept 19**: restructured/ re-skilled workforce in place (linked to new target operating model)
Improved systems & processes	**Jul**: initial work on economic statistics target operating model **Jun**: System to process VAT data in place **2017**: Redeveloped GFCF system used in production phase 1 (complete) **2017**: Redeveloped trade systems used in production	**Sept 19**: new 'target operating model' implemented (linked to workforce plan)
High quality statistics, analysis and advice	**Sept:** Reduced risk of fines with delivery of ESA10 derogations **Oct**: Blue Book 2017 published including a number of improvements **2017:** Relaunch of Consumer Price Index including owner-occupier housing costs (complete)	**July 18:** Blue Book published including a number of improvements, including GFCF redevelopment phase 2 **July 18:** PAYE aggregates used in household income estimates **2019:** Re-developed productivity statistic suite delivered. **Sept 19:** Reduced risk of fines with delivery of all ESA10 derogations **Sept 19:** Improvements to productivity estimates **Sept 20**: Full production of Enhanced Financial Accounts ('flow of funds')

Annex B   Research Programme

ESCoE Research Programme

1. The core research programme will provide ONS with research that addresses established statistical limitations, such as the absence of double deflated volumes measures of GDP (project 2.3), inadequate measurement of the service sector (projects 2.1, 2.2 and 2.4) and regional statistics (projects 3.1, 3.3 and 3.4), as well as the need for longer runs of data (project 1.1). Further, the research programme will evaluate the quantitative implications for measurement of economic activity associated with the modern and digital economy, including e.g. evaluation of methods for gauging the magnitude of intangible investment (project 2.2), re-developing the multi-factor productivity methodology to better accommodate new inputs (project 2.3), exploring how new digital business models map into existing statistics (project 2.2), and understanding the impact of global supply chains on trade and GDP statistics (project 2.4).

2. ESCoE's research programme explores new methods for collating and improving economic statistics from existing data sources, making better use of administrative data, other microdata and data from a range of sources to produce better regional (projects 3.1, 3.3 and 3.4) and labour market statistics (projects 3.1 and 3.2), more timely and accurate measures of National Accounts aggregates (project 1.2), and new aggregate indicators of welfare (project 1.3). Projects explore the possibilities for using novel data sources to inform the development of economic statistics, including occupational and service sector classifications (projects 2.2 and 3.2) and measures of intra UK trade (project 3.4), and further develop and analyse business microdata to better understand the productivity puzzle, investment and innovation patterns (project 2.5).

Work Stream	Project Number	Project Title	Professorial Lead	Co-Leads
National Accounts and Beyond GDP	1.1	Historical National Accounts data	Jagjit Chadha (NIESR, Kent)	Martin Weale (King's) Nick Oulton (LSE, NIESR) Sylaja Srinivasan (NIESR, Bank) Ryland Thomas (Bank)
	1.2	Measuring GDP at different publication horizons	Andrew Harvey (Cambridge)	George Kapetanios (King's) Martin Weale (King's) Simon Kirby (NIESR) Ivan Petrella (WBS)
	1.3	Democratic measures of income growth	Martin Weale (King's)	Nick Oulton (LSE, NIESR)
	1.4	Modelling and communicating data uncertainty	James Mitchell (WBS)	Ana Galvao (WBS) Ivan Petrella (WBS)
Productivity and the Modern Economy	2.1	Measuring activity in services sectors	Mary O'Mahony (King's)	Sylaja Srinivasan (NIESR, Bank) Augustin de Coulon (King's) Martin Weale (King's)
	2.2	Measurement issues in the modern economy	Diane Coyle (Manchester, NIESR)	Rebecca Riley (NIESR) Hasan Bakhshi (Nesta) Mary O'Mahony (King's)

	2.3	Sectoral productivity estimates	Nick Oulton (LSE, NIESR)	Sylaja Srinivasan (NIESR, Bank) Rebecca Riley (NIESR) Mary O'Mahony (King's)
	2.4	Granularity in trade in value-added data for key sectors	Giordano Mion (Sussex)	Monique Ebell (NIESR) Sylaja Srinivasan (NIESR, Bank)
	2.5	Developing firm level micro data for productivity analysis	Nick Bloom (Stanford)	Rebecca Riley (NIESR) Tatsuro Senga (QMUL) Paul Mizen (Nottingham) Hasan Bakhshi (Nesta)
Regional and Labour Market statistics	3.1	Using administrative data to develop new labour force and migration statistics	Jonathan Wadsworth (RHUL, LSE)	Jonathan Portes (NIESR) Augustin de Coulon (King's)
	3.2	Using administrative and big data to improve labour market statistics	Peter Dolton (NIESR, Sussex)	Richard Dorsett (NIESR) Hasan Bakshi (Nesta) Stefan Speckesser (IES)
	3.3	Regional nowcasting in the UK	Gary Koop (Strathclyde)	James Mitchell (WBS) Stuart McIntyre (Strathclyde)
	3.4	Improving the quality of regional economic indicators	Steve Gibbons (LSE)	Katerina Lisenkova (Strathclyde) Graeme Roy (Strathclyde) Kim Swales (Strathclyde)

Non ESCoE research

3. Using Prices data to estimate Regional CPI series. The suitability of this data for the production of regional consumer price indices has been questioned over time, to support the production of robust regional estimates. We plan to publish in July.

4. A study of asymmetries between UK and foreign National Statistics Institutes (NSIs) of matching export and import goods statistics to better understand reasons for any difference between these. This research which will be published via the ESCoE in spring/summer 2017

5. A joint project with the Bank of England, in collaboration with interested academics, to reconstruct historical data on the sector and financial accounts and balance sheets in the UK. Time series now run back to the 1920s for some series

6. Deloitte were commissioned to undertake a review of mixed income compilation methods and identified data sources that could provide data on a limited range of self employed industries or occupations but no sources that could be used as a proxy for mixed income. Further work will be undertaken in 2017 to identify further data sources.

7. The ONS recruited an independent contractor and sector expert in relation to classification of Public Private Partnership. This relationship has delivered high quality advice and guidance to the classifications team.

8. Deloitte were commissioned, and completed, three pieces of work covering the financial sector:

    i.   An assessment of the size of the Money Market Funds sector – Deloitte confirmed that this sector is small in the UK;

    ii.   To validate the estimated service charge for defined benefit pension schemes – Deloitte validated current ONS estimates;

    iii.   To provide an assessment of available data sources for flow of funds – Deloitte's findings validated ONS research in this area.

9. The ONS is concluding work with the University of West of England, King's College London, and NIESR to improve the documentation and meta-data labelling of micro-data databases held in the VML. In particular, a new version of the Annual Respondent Database (called ARDx) - a principal dataset for microdata analysis in the VML. ONS also commissioned Dr Rebecca Riley of NIESR to peer review the new ARDx dataset, primarily the PIM model which generates firm level capital estimates

10. ONS also has commissioned a review of discount rates used in various areas of economic statistics to ensure coherency between different rates used in different parts of the National and Satellite Accounts.

11. We have also commissioned studies to expand pollutant absorption estimates and to estimate the value of floodplain defences for the environmental accounts. ONS is also conducting research into estimating measures of climate change.

12. We are carrying out research into household childcare activity to improve the household account and into mapping which National Accounts industries may have been affected by changes in household production. We have also commissioned work to look at the valuation of social transfers in kind and benefits in kind for the household account.