

UK STATISTICS AUTHORITY

Minutes

Friday 27 January 2017

Boardroom, London

Present

UK Statistics Authority

Sir Andrew Dilnot (Chair)

Professor Sir Adrian Smith (Deputy Chair)

Mr Jonathan Athrow

Ms Sian Baldwin

Dame Colette Bowe

Dame Moira Gibb

Professor David Hand

Professor Jonathan Haskel

Mr Ed Humpherson

Dr David Levy (until item 10)

Ms Nora Nanayakkara

Mr John Pullinger

Also in attendance

Mr Pete Benton (for item 9)

Dr David Best (for item 9)

Mr Robert Bumpstead

Mr Ian Cope

Mr Joe Cuddeford

Ms Debra Prestwood (for item 9)

Ms Heather Savory

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 16 December 2016 were agreed.

3.2 The Chair reported on the topics discussed at the meeting of the non-executive directors that had taken place prior to the start of the Board meeting. The non-executives had discussed the following.

- i. The Public Administration and Constitutional Affairs Select Committee had published its report on the appointment of the next Chair of the Statistics Authority, and had endorsed the appointment of Sir David Norgrove to the role.
- ii. The implementation of the recommendations from the assessment of Consumer Prices Index including owner occupier housing costs (CPIH). The Regulation Committee would consider whether sufficient progress had been made to re-designate the statistics as National Statistics at its meeting of 16 February.
- iii. Developments with the Administrative Data Research Network (ADRN).
- iv. Communications and Stakeholder Engagement.

4. Report from the Authority Chair

4.1 The Chair reported on his recent activities and noted that the next Board meeting would coincide with the second meeting of the Economic Experts Advisory Group.

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

5.1 Professor Hand provided an update on developments with the Administrative Data Research Network (ADRN). The last Board meeting had heard that while progress remained challenging, there were good signs of progress including the appointment of a new Data Negotiator post and promising conversations to overcome barriers to data sharing with departments. Recent focus had been on the capacity of the Administrative Data Service (ADS) and consensus was building around the need for a single Director to take overall responsibility for the Network.

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 25 January. The meeting had considered:

- i. the availability of flexible management capacity to respond to unexpected challenges;
- ii. the current financial position and forecast for the year end;
- iii. the opinion of the external auditors; and
- iv. reports from the internal audit team and the implementation of recommendations arising from internal audits.

7. Report from the Chief Executive [SA(17)01]

7.1 Mr Pullinger reported on activity and issues for January. Issues discussed included:

- i. levels of user satisfaction with the ONS website and plans for further development of the site;
- ii. response rates for the Labour Force Survey and efforts to improve these; and
- iii. changes to the staff profile over time.

8. Report from the Director General for Regulation [SA(17)02]

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

- 8.2 The Office for Statistics Regulation (OSR) had been considering evidence from ONS about progress made towards meeting the recommendations of the assessment of CPIH. The OSR would form an independent judgement about whether CPIH could be re-designated as National Statistics by reviewing documentation published by ONS and by engaging with users.
- 8.3 The meeting heard that following publication of the Code of Practice Stocktake in December, OSR was now developing a revised Code. Prior to formal consultation, a new draft of the Code would be provided to the Chair and discussed at a future Board meeting.

9. Feature Paper 3: Electronic Data Collection [SA(17)03]

- 9.1 Mr Benton introduced a paper which provided background on progress towards ONS moving business surveys online, and set out options and priority choices in the context of the Data Collection Transformation Programme (DCTP).
- 9.2 The meeting considered how greater use of administrative data had a bearing on the transformation and rationalisation of surveys, and the following comments were made in discussion.
- i. There is great potential for administrative data sources to replace some surveys. But other surveys would need to continue in a reduced form, for example to check the quality of the administrative data or provide important insights which administrative data lacked. Some variables were not readily derived from administrative data at the present time.
 - ii. There are many channels for collecting data and to an extent the survey vs. non-survey distinction was simplistic. In the short term there was a focus on moving paper collections on line, but the wider question was about how and what data to collect in the best way.
 - iii. While the potential benefits of many administrative datasets were clear, further work was needed on understanding the benefits and risks of some other sources.
 - iv. Some rationalisation of surveys was possible even without administrative data, for example by combining data requests which go to the same businesses.
 - v. It was suggested that administrative data was good for answering questions about 'what is happening now?' but perhaps less well suited to questions about 'who?', 'how long?', or 'where to?'. Therefore, its utility was dependent on user needs.
 - vi. A future model for statistics might comprise a backbone of administrative data supplemented by rationalised online surveys.
- 9.3 The importance of understanding user needs was discussed, with the following comments made.
- i. Most business surveys fed into the National Accounts. There was a great demand for this information for decisions of national importance. In some cases, ONS had developed new surveys recently because of gaps in measuring the modern economy.
 - ii. Plans for electronic data collection should take full consideration of user needs. It was important not only to consider how new technology and data sources could help collect the same information more efficiently, but also to consider what information was needed by decision makers and society.
 - iii. Transforming ONS so that it could better inform decisions was central to the Authority's strategy. How to measure the modern economy was also a key question in the Bean review.
- 9.4 The Board considered options for delivery of online surveys, in particular how quickly this could be done while ensuring maximum benefits. The following comments were made in discussion.

- i. The decision about how quickly to put surveys online rested on the extent to which surveys were simply shifted online (digitisation); the extent to which duplication was removed (rationalisation); the extent to which they were redesigned (transformed); and the extent to which surveys were replaced with administrative data (integration).
 - ii. Simple digitisation would provide a quick win, but would not provide wider benefits and could divert resources from transformation and integration.
- 9.5 It was agreed that the priority should be to deliver transformation and integration, rather than simple translation, and to invest in ways which maximise benefit. The plan for putting surveys online should be clear about what would be moved online by when, with clear milestones along the way, rather than focus only on an end point when all surveys would be online. It would not be sensible to divert effort to putting surveys online which would not continue once administrative sources had come on stream, or once user needs changed.

10. Authority Business Plan [SA(17)04]

- 10.1 Mr Pullinger introduced a paper which presented an overview of the development of the Authority's Business Plan for 2017/18.
- 10.2 The following comments were made in the discussion.
- i. It was not expected that Brexit would cause any fundamental changes to the core business plan, though it could heighten the urgency. It would be important for the statistical service to be involved early on in the development of any new administrative systems.
 - ii. There was a need for more flexible analytical resource to help meet emerging user needs.
 - iii. Priority should be given to delivering better statistics. This meant ensuring that areas where resources were focussed were the ones which would remain important to the policy debate in the longer term.
 - iv. The plan should have a clear focus on users. While using more administrative data would help us meet some user needs better, it was critical to consider what questions our users wanted to ask.
- 10.3 A draft of the Business Plan would be provided to the next meeting.

11. Bean Review Progress

- 11.1 The Chair provided an update on progress with meeting the recommendations from the Bean Review.
- 11.2 On the production side, the recommendations of the Bean Review were incorporated into the strategy and business plan for the organisation, and rapid progress was being made. A number of initiatives were reaching fruition, including the Economic Statistics Centre of Excellence.
- 11.3 On the regulation side, the Office for Statistics Regulation had been launched and was developing its business plan for 2017-18.

12. Any other business

- 12.1 There was no other business. The Authority Board would meet next on Thursday 2 March at 10:30 in London.

UK STATISTICS AUTHORITY

Agenda

Friday 27 January 2017

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

Chair: Sir Andrew Dilnot

Apologies: None

10:30 to 11:00 – Non-executive session

1	Minutes and matters arising from previous meetings <ul style="list-style-type: none">• Declarations of interest	Meeting of 16-12-16
2	Report from the Authority Chair	Sir Andrew Dilnot
3	Report from the Chair of the Administrative Data Research Network (ADRN) Board	Professor David Hand
4	Report from the Chair of the Audit and Risk Assurance Committee	Meeting of 25-01-17 Dame Colette Bowe
5	Report from the Chief Executive	SA(17)01 Mr John Pullinger
6	Report from the Director General for Regulation	SA(17)02 Mr Ed Humpherson

13:00 to 13:30 – Lunch

7	Feature Paper 3: Electronic Data Collection	SA(17)03 Mr Pete Benton and Dr David Best
8	Authority Business Plan	SA(17)04 Mr John Pullinger
9	Bean Review progress	Discussion Sir Andrew Dilnot
10	Any other business	

Next meeting: Thursday 2 March 2017, 10:30 to 16:00, London

Chief Executive's Report, January 2017

Purpose

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

Summary

2. There have been some excellent examples of innovation this month that have been very useful in demonstrating that the radical change we are seeking is happening. These gave us the basis for a well received series of staff talks for ONS colleagues focused on equipping them with the technology and skills to maximise their contribution to the future statistical system.
3. Alongside this we are actively managing the ONS budget for the rest of 2016-17. Following the slower than hoped start in the first few months of the year, we have now built up pace in transformation projects to the extent that we have had to explore areas where we need to defer activity for a few weeks in order to meet our financial targets. This places us in a much stronger position to start the new financial year than a year ago.

Review of recent activities

4. Developments in recent weeks include the following.
 - i. New integrated releases on economic statistics (theme days) now on stream with positive feedback.
 - ii. Administrative data census income estimates published, joining up data from ONS, Department of Work and Pensions and HMRC.
 - iii. First results of ONS survey of management practices, published as part of a wider set of data and analysis on productivity.
 - iv. Series of articles published on developments in consumer prices statistics with a focus on housing costs.
 - v. Retail sales inquiry fully online (5,000 businesses) with gains in speed and accuracy.
 - vi. Children's mental health survey launched. This is the first study to focus on mental health of 2-19 year olds in over ten years.
 - vii. The Programme Assurance Review (PAR) has given the green light to go ahead with the Census Test in April 2017.
 - viii. New partnership with DataKind, which works with the charity sector to support effective use of data.
 - ix. Strong GSS contribution at the first UN World Data Forum in Cape Town.

Future look

5. Business plan options are now ready for consideration. The Board will consider options at its meeting in January. The Executive Group will finalise a detailed plan in February for discussion at the Board in March. The next two years will be a peak period for delivery of the *Better Statistics, Better Decisions* strategy.

John Pullinger, 20 January 2017

Report from the Director General for Regulation

Purpose

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

Recommendation

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

Discussion

3. The dashboard summary of regulatory activities is at **Annex A**. Overall it represents a marked pick-up in regulatory activity compared to the September-December period. This reflects the focus on the creation and launch of the Office for Statistics Regulation. Now the Office has been launched, and as the domain structure settles in, I expect to sustain the level of activity shown in this month's dashboard.
4. Three areas of activity to highlight:
 - i. **CPIH**: to maintain communication with the stakeholder community, we will publish an outline of our process for considering the designation status of CPIH in the week of the January Board meeting. We continue to review the large volume of material ONS is publishing. The key point is that the housing cost component at the heart of CPIH: has a very large weight within the overall index (around a quarter of the whole index); has been a cause of significant error in the recent past; and is not available as micro data to ONS. It is for these reasons that we have paid so much attention to assurance around this data. There are two broad approaches to assurance: assurance of the data received from the Valuation Office; and assurance through a comparison with other sources of data on the private rental market. We are broadly comfortable with the approach ONS take to the assurance over the aggregate data received from the Valuation Office; but do not yet consider that the comparative/triangulation work with other sources is sufficiently comprehensive. We have held three meetings with the ONS team on this issue and expect to see improvements quickly.
 - ii. **Migration/National Insurance numbers**: we will publish a letter to John Pullinger on Thursday 26 January on the continued need for a cross government approach to migration statistics. This letter will coincide with the publication of the assessment report for DWP's statistics on foreign-born National Insurance registrations, which will temporarily suspend the National Statistics status of these statistics. The suspension reflects the failure to explain the context of these statistics, to give guidance on their use or to relate them to other measures of immigration.
 - iii. **Code of Practice**: following publication of the Code of Practice stock take in December we are now in full swing in developing a revised, principles-based Code. This exercise continues to involve a large degree of engagement and consultation - for example we have advertised a series of focus groups on our website.
5. Our business planning is underway. We are compiling proposals for the 2017/18 work programme and will be convening a Portfolio Development Day on 7 February to prioritise the proposals. In parallel we are working on budget forecasting, learning and development plans and doing some work around our risk appetite. It is my intention to consult publicly for the first time on our work programme before finalising our business plan. We will alert stakeholders to definite items for the programme, seek opinion on our

other proposals, and seek additional ideas. This will be a three week consultation during February/March promoted through our website, social media and our growing domain networks. I will share an early draft of the plans with the Regulation Committee in February and with the Authority Board in March. My aim is to publish the plan after final approval by the April Regulation Committee.

Challenges

6. The main challenges are:
 - i. Developing the Office: while the launch went well there are several areas of further development, notably our branding, and the website.
 - ii. Code of Practice: there is a great deal of work to do to write a new Code, shaped by feedback and comments from the GSS and others over the next 2 months.

Ed Humpherson, Director General for Regulation, 20 January 2017

List of Annexes

Annex A Regulatory Activities

Annex A Regulatory Activities December – January 2016

Economy	Health and social care	Business, industry, energy and trade	Crime and justice
<ul style="list-style-type: none"> • CPIH: reviewing ONS outputs (particularly the comparative analysis), and engaging with users, to consider whether Requirements have been met. • Review of Quarterly Sector Accounts: engaging with Diane Coyle and Tom Pybus from OBR. • Scottish fiscal bodies: Met Scottish Fiscal Commission and Revenue Scotland. • Public Expenditure: follow up with Treasury on NHS funding 	<ul style="list-style-type: none"> • Systemic review: Invitations and preparation for 3rd Round Table in March and separate DH workshop. Procuring contractor for stocktake of health and care statistics. • A and E: Discussing potential to assess A&E statistics with NHS. Also considering public reporting of NHS data on A&E performance 	<ul style="list-style-type: none"> • Trade: error in trade statistics in December supported our decision not to reinstate National Statistics status until there has been a period of error- free running. Following up at the next monthly meeting with the Trade team. • Construction: planning a workshop for ONS construction teams, possible re-designation later in 2017 	<ul style="list-style-type: none"> • Systemic review: finalising position paper • Crime statistics: confirmed National Statistics status of the Crime Survey for England and Wales; reinstated National Statistics status for the homicide index. Police recorded crime statistics - publication of latest HMIC audits delayed.
Labour market	Housing, planning and local services	Children, education and skills	Agriculture and environment
<ul style="list-style-type: none"> • Migration: Published blog and letter to John Pullinger on need for joined-up approach. Drafting reports on student migration and the Labour Force Survey (on reliability of foreign-born workers employment rates in the face of falling response rates). Published assessment of National Insurance numbers on 26th January - National Statistics status temporarily suspended • Income /Earnings: Still a need for significant improvement eg income from self employment. 	<ul style="list-style-type: none"> • Housing Review: continued stakeholder engagement for Systemic Review of Housing • Phase 2 Assessment of UK House price Index: Restarting the Assessment process. • Homelessness: responding to complaint about misleading presentation of DCLG homelessness statistics in DCLG press office statements 	<ul style="list-style-type: none"> • Schools and Pupils: finalising our Assessment Report: Statistics for England on Schools, Pupils and their Characteristics • Casework: currently investigating three separate enquiries on different topics. These include the recurring and opposite themes of access to data and data privacy. The third concerns performance measures in higher education, based on the Teaching Excellence Framework. 	<ul style="list-style-type: none"> • HSE pesticide usage statistics: preparing response – letter for correspondent • Air pollution deaths statistics: Responding to query about Defra’s estimates of deaths from air pollution. We have concluded that the figures are reasonably robust.
Population	Culture, leisure and identity	Security, defence	Transport and travel
<p>Population statistics: Following up ONS population statistics, on assurance of administrative data.</p>	<p>No significant activity</p>	<p>No significant activity</p>	<p>No significant activity</p>

Online Surveys and Data Collection Transformation Programme Update

Purpose

1. This paper comprises the third in a series of feature papers commissioned following questions from non-executive directors. It provides a brief history of ONS' journey to place business surveys online, provides an update on progress and sets out options and priority choices in the context of the wider Data Collection Transformation Programme (DCTP) and ONS Portfolio.
2. Responses to the individual feature questions raised by Board members are where possible embedded within the body of the paper with further detail at **Annex C**.

Recommendations

3. Members of the Authority Board are invited to:
 - i. note the history and current progress in developing and rolling out online questionnaire capability; and
 - ii. provide views on the options and priorities going forward alongside the Census and Economic Statistics Transformation Programmes.

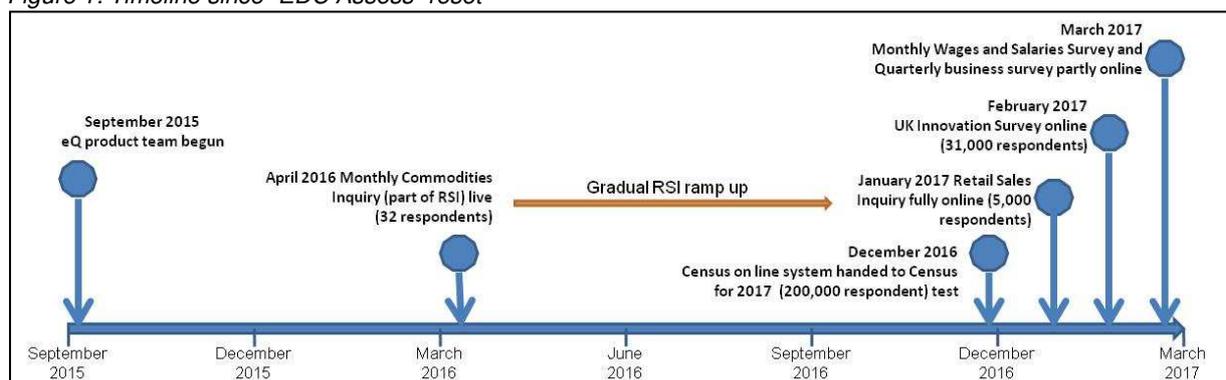
Background

4. ONS has a business plan milestone to have 100 per cent of business surveys online by end March 2019. Alongside this are interim milestones to have several key business surveys online during 2016/17 and to begin to modularise and rationalise surveys during 2017/18. Internally, we set ourselves a target to have six business surveys online during 2016/17.
5. Progress with online surveys and wider Data Collection Transformation was last discussed by the Board in June 2016. At that point we were reporting on the successful 'go live' of the Monthly Commodities Inquiry online, positive user feedback and plans to support online Census tests.

History and recent progress

6. It has been a long-standing goal of ONS to modernise its data collection operation, including placing surveys online and the original ONS Electronic Data Collection (EDC) Programme was launched in April 2012.
7. While some progress was made and small scale online collection pilots started in January 2014, a review by the new ONS digital leadership team in mid 2015 ("EDC Assess") concluded that development up to that point used outdated technology and architecture. Therefore, whilst the programme had delivered valuable learning, the programme was reset at that point and new IT development commenced. The first of our new IT product development teams (the electronic Questionnaire team) was created in September 2015.
8. Since then, ONS has delivered: a first online Monthly Commodities Inquiry, a fully online Retail Sales Inquiry (5,000 respondents) and a suite of products ready to support both the 31,000 sample UK Innovation Survey in February and the Census test of 200,000 households in April 2017. We are also expecting to place parts of the Monthly Wages and Salaries Survey and Quarterly Business Survey online before the end of March 2017. The following diagram illustrates this recent journey.

Figure 1: Timeline since "EDC Assess" reset



9. It is worth noting that our internal target to move six business surveys online during 2016/17 was reduced to four as result of ONS' decision in spring 2016 to utilise the same electronic Questionnaire (eQ) product for the 2017 census test, rather than to contract for or build a separate product. This has saved in the region of £3 million in ONS not creating a separate Census product.
10. Following the government's Spending Review, in April 2016 EDC was subsumed as a work-stream of the broader Data Collection Transformation Programme (DCTP). This has vision to create more integrated and efficient data collection and spans five work-streams of online surveys, survey rationalisation, data integration, systems integration and field modernisation.
11. **Annex B** contains a fuller explanation of the history, challenges and lessons.

Summary of options

12. To support the aim of placing business surveys online we have identified three potential rollout timetables:
 - Option 1:** All business surveys online in 2017/18 (a year earlier than the current ONS Business Plan target)
 - Option 2:** All business surveys online by March 2019 (the current ONS Business Plan target)
 - Option 3:** All business surveys online by March 2020 (a year's extension to the current ONS Business Plan target)
13. The approaches that would be required to meet each of these timetables are described later.
14. The decision between these approaches rests on the extent to which we simply shift surveys online (translate); remove duplication and create concept centred modules (rationalise); redesign for more user centred online use (transform), or; remove/model survey fields on the basis of known administrative data (integration). Also, by the extent and timing of changes needed within National Accounts and Economic Statistics, such as Enhanced Financial Accounts.

Translate = is the quick win, moves surveys online as is, but only saves postage
 Rationalise = more involved requiring survey focused redesign and amendment to processing systems
 Transformed = rationalisation much more user focused and maximising routing and validation flows
 Integration = draws first on non-survey sources and then fills gaps through rationalised survey taking. This creates greatest benefit for ONS, decision-makers and respondents.

15. Ultimately, the big prize comes from replacing as much as possible of our existing surveys with alternative, non-survey sources (such as administrative data from other government departments) and then making what remains of our survey taking activity as efficient and user focused as possible. In an ideal world, we will go on to tailor each survey to individual respondents; only asking from them what we do not have or could reasonably model from existing information.
16. It is worth noting that option 3 (extending to March 2020) is the point when the whole sample of all business surveys would be online. Even within that option, we would still expect a proportion of the sample for most surveys (66 out of 76 surveys, i.e. 87 per cent) to be online by March 2019. This reflects our current approach which seeks to manage operational and data quality risk by ramping up from zero to full sample incrementally.

Key constraints

17. Three Key constraints to online business survey rollout timetable are:
 - i. Technology development capacity, i.e. limited team numbers and sizes;
 - ii. Methodology and user research capacity, working with the business to re-design and re-engineer surveys;
 - iii. The rollout windows given survey dispatch dates (e.g. annuals despatched in the period January to April); and
 - iv. The balance of priority between reputation (our desire to be online, regardless of the potential back-office workarounds), cash savings and statistical quality improvements
18. The Digital Technology and Methodology capability required for DCTP is also required by the Census and Economic Statistics Transformation programmes and, given current constraints on the size of these teams, decisions about the online business survey rollout timetable therefore need to be made in the context of the wider ONS portfolio.
19. The constraint of survey rollout windows is most significant for annual business surveys. These are typically dispatched between January and April each year, driven by timetables for publication of economic statistics. If a new eQ is not ready for the annual survey dispatch window this delays rollout by a year and is therefore a significant issue in the rollout timetable.

Wider opportunities

- 20 The Data Collection Transformation Programme (DCTP) has five workstreams in total:
 - Moving business and social surveys online
 - Integration of administrative and survey data
 - Survey redesign and rationalisation (both business surveys and household surveys)
 - Systems integration
 - Field force modernisation
21. The data integration and survey rationalisation work-streams will deliver a reduction from 76 business surveys to potentially around a dozen by combining and modularising related monthly surveys and similarly related quarterly and annual surveys. The more we integrate data and rationalise surveys the easier and more cost-effective online rollout becomes. Some surveys are much more complex than others to rationalise and we have developed an 'optimal' rollout plan that takes into account this complexity alongside development timetables and dispatch windows.

22. However, the speed of full transformation is dependent on the quality of administrative data and our ability to develop appropriate statistical models. This uncertainty further complicates timetable decisions and adds additional risk.
23. Research into online social surveys, which are more complex than business surveys, is being outsourced during 2017/18. However during 2017/18 there is an opportunity to use the capability developed for the 2017 census test to move the Opinions Survey (a relatively simple survey reaching out to 16,000 households per year) from a field-based interview to mixed online and telephone modes. This would save at least £500,000 per annum from 2018/19 onwards and increase scope for income generation, but would potentially have an impact on the pace of business survey developments because it would draw on the same Digital Services, Transformation and Methodology (DTM) development team resources.

Costs and benefits

24. The 2015 Spending Review allocated £28 million to Data Collection Transformation over the four year period. Roughly £6 million (22 per cent) of the funding is for statistical and operational change relating to online business survey transformation, delivering in the region of £2 million annual savings.
25. The levels of saving will depend on the extent to which we are able to rationalise, transform and integrate with non-survey sources.

Options description and evaluation

26. The approach required for each option is described and evaluated below with further detail contained at **Annex A**.

Option 1: All business surveys online in 2017/18

27. To achieve this, we would need a highly tactical solution, such as emailing PDF versions of current paper questionnaires to businesses, creating images of responses and then keying them into existing legacy processing systems.
28. This would require extensive manual management of circa 500,000 email addresses, the creation of circa 2,000,000 PDF files, email-based response chasing and the keying of returns, which would introduce significant costs and risks. Data security risks would also be significant.
29. A very brief consideration of available products, such as Adobe Livecycle, indicate that it would be very expensive, require extensive work to integrate with legacy systems and raise data security issues. Design work on this has not started and would take at least three months.

Option 2: All business surveys online by March 2019

30. Under this option most business survey questionnaires would be translated online 'as is' with limited optimisation for online collection, except in cases where current question formats (e.g. matrix questions) are incompatible with the online mode.
31. There would be limited or no implementation of rationalised surveys or integration of administrative data before March 2019, with rationalised surveys being moved online at a later date. Furthermore, response rates and data quality would likely be affected by sub-optimal questionnaire design. This, we expect, would result in additional manual intervention in achieving data quality and response chasing.
32. A key technology constraint is the Response and Respondent Management (RRM) product, which provides the capability to manage multiple surveys in multiple

businesses. This is the only product still in use from the development prior to the 2015 programme reset. The four business surveys that will be online by April 2017 will take it to its maximum capacity (supporting around 50,000 businesses) and, whilst a new product team is in place to replace it, it will not be ready until late 2017.

33. There is, therefore, a high likelihood of missing the early 2018 dispatch window for annual surveys without sufficient questionnaire testing and hence increasing data quality risks. If the 2018 window were missed, hitting the March 2019 deadline would require the whole sample of each annual survey to be dispatched online in 2019 without a partial ramp up in 2018.
34. Whilst we have not fully worked through the details, we estimate that option 2 would deliver annual cash savings of the order of £0.6 million by March 2019. Whilst paper processing costs would be removed, there would be limited savings from reduced sample sizes, and additional costs to manage the response rate and data quality implications of reduced questionnaire optimisation.

Option 3: All business surveys online by March 2020

35. As with option 2, a number of relatively simple business surveys would be translated online during 2017/18 with appropriate optimisation for the online mode.
36. Further questionnaires would be translated online in 2018/19, but (unlike option 2) implementation of rationalised modular surveys would commence in earnest. This would continue through 2019/20 with increasing administrative data integration.
37. Data quality would be well understood through gradual increase in online sample proportions.
38. In 2017/18 we would focus our efforts on designing the rationalisation of the monthly short-term business surveys and integrating turnover and employment data from the VAT and PAYE systems. This would give significant improvements in monthly statistical outputs and subsequent sample size reductions from 2018/19. These are the key surveys measuring employment and turnover, underpinning short-term economic indicators including GDP and accounting for around 39 per cent of the 1.4 million business survey questionnaires dispatched annually.
39. Our Economic Statistics colleagues support this approach and it has also received positive feedback in recent international discussions.
40. In the meantime, we anticipate that, in total, up to a dozen more business surveys would be online by March 2018 accounting for 23 per cent of questionnaires dispatched annually. Subject to further analysis, we would also like to move the Opinions survey to mixed online and telephone modes in 2017/18.
41. We have not yet been able to fully assess the implications for cash savings. However, our best estimate is that the sample size reductions enabled by survey rationalisation, combined with reduced paper processing costs, would deliver in the range of £1.5 - £2 million annual savings by March 2020, with further savings from ongoing survey transformation in later years.

Other options considered

42. For completeness, it should be noted that the option of outsourcing some development was also considered. However, given the platform and product interdependencies, it is felt that increased management and communication complexity would hinder rather than accelerate progress.

43. Decoupling technology solutions for business surveys, social surveys and the census, was also considered but rejected. Whilst it would narrow the scope of development for each, it would significantly increase overall costs. It is not ruled out as a future option if significant challenges arise.

Conclusion

44. The approach currently being taken to place our business surveys online seeks to build on the progress of the last 18 months and to strike a balance between short-term cash savings and the broader transformation needed – for example to consolidate and rationalise our surveys and integrate with administrative data sources.

45. We have presented several options which, whilst not entirely discrete, seek to illustrate the choices we can take over our approach. Overall we feel that the most viable and desirable approach is to maintain a focus on our long-term goal to create a transformed data collection operation that integrates surveys and administrative data more fully. Whilst it may take us beyond the end of 2018/19 to complete this journey, we expect to have at least parts of 87 per cent of our surveys online by March 2019 and we will take the opportunity to translate and rationalise short-term monthly surveys, prior to fuller transformation, in order to deliver the cash savings.

46. The choices presented in this paper focus entirely on business surveys and make assumptions about the overall priorities currently being discussed across the office. When this wider prioritisation is complete, we will be able to fully assess the deliverability of our plans.

47. We would appreciate the Board's view on the relative priority we should give to placing business survey online, compared to household survey, wider economic statistics transformation and Census.

Peter Benton, Director Data Collection, ONS, 20 January 2017

List of Annexes

Annex A	Analysis and detail of options
Annex B	A brief history of ONS' online survey collection
Annex C	Responses to questions by Board members

Annex A – Analysis and detail of options

Analysis of options

Option 1: Getting all business surveys online in 2017/18 (a year earlier than the current ONS Business Plan target)

Given the current maturity level of the new Survey Data Collection platform and its component products (Response and Respondent Management, (RRM) eQuestionnaire and the ability to load data into/from legacy processing systems) we wouldn't be able to use these systems fully and so would have to:

- produce a pdf version of each questionnaire issued to businesses across the 76 surveys; and
- email this to businesses and then load returned data into legacy downstream processing systems.

To do this we would need to introduce manual processes and increase staffing to:

- Obtain/maintain 500,000 businesses' email addresses per year;
- pdf every questionnaire (and reminder) issued – approximately two million forms and reminders per year;
- Email them to businesses, either using the public email network or secure email messaging through the new Secure Electronic File Transfer (SEFT) portal already developed as part of DCTP:
- Design and implement a solution to transfer all received data into legacy processing systems. In the absence of detailed analysis this would involve manual keying of all data or use of a product such as Adobe Livecycle; and
- Set up and maintain manual management of the work status of the two million despatches to enable response chasing, editing and validation of data, enforcement of compliance under the Statistics of Trade Act 1947.

However:

- Open email is not secure for the return of completed data from businesses;
- The Secure Electronic File Transfer (SEFT) portal is at full capacity after placing the first four business surveys online in 2017 as planned and has to be replaced with the new Response and Respondent Management product, expected in late 2017;
- It is unlikely that products such as Adobe Livecycle provide adequate data security due to browser incompatibilities;
- There would be increased costs (estimated at up to £4 million+ per year whilst this solution is in place) and quality risk introduced by the huge amount of manual processing, are prohibitive; and
- The associated limited cash benefit (~£500,000 of non-staff costs) per year do not warrant the investment.

Option 2: All business surveys online by March 2019 (the current ONS Business Plan target)

This would entail 'translating' most business survey questionnaires online 'as is' and only 'transforming' those questionnaires that are a priority for redesign and user testing as they are so incompatible with the online mode. There would be limited or no implementation of any rationalised surveys or integration of admin data before March 2019.

To do this we would need to:

- Prioritise use of DTM development resources for online business survey roll-out over social surveys and Census going online, or further grow the DTM capacity;
- Prioritise DTM redesign and user testing on business surveys from April 2017;
- Increase the number of DTM product development teams for the Survey Data Collection (SDC) platform, particularly around the eQ and secure data

storage, to create the absolute minimum additional functionality to support the longer, complex surveys;

- Have early access to the new RRM, currently scheduled for completion in late 2017;
- Develop the capability to load data from the Survey Data Collection platform into the legacy processing systems not yet affected by online collection; and
- Make the necessary changes to the upstream processing systems to enable the data load; this includes the Inter-Departmental Business Register used as the sample frame.

However:

- There would be minimal time for design and user testing which risks the data quality of, for example, the annual surveys underpinning the Blue and Pink Books;
- We may need to increase staff costs by around £1-2 million per year, depending on the extent of mitigation done to ease the above risk and deal with decreased response and data quality;
- We would be less likely to place social surveys online in the short/medium term using the corporate platform because DTM resources would need to prioritise business surveys;
- There may need to be some bespokeing of product solutions which would slow the overall development of the Survey Data Collection, and possibly other, DTM Platforms; and
- This would delay most of the benefits associated with rationalisation of surveys and integration with administrative data.

Option 3: All business surveys online by March 2020 (a year's extension to the current ONS Business Plan target)

This is effectively taking the current plan for moving business surveys online and extending it into early 2020.

- In 2017/18 we would translate a number (around a dozen) further surveys online once the new RRM was ready (expected late 2017). This would bring the total number of surveys online to 15 out of 76 by March 2018;
- During 2018/19 we would then continue to translate questionnaires online then switch to putting rationalised surveys online with some early integration of admin data. We estimate that 87 per cent (66 out of 76) of surveys would be fully/partially online by March 2019; and
- The dependencies for the latter are new products to support use of admin data, a Statistical Business Register to replace the IDBR (which cannot support the sampling designs necessary for survey rationalisation) and new downstream processing platforms/methods for the transformed economic statistics outputs.

In practice, there are sub-options here, whereby rationalisation takes place without the integration with administrative data and this is something that can be progressed even if the handling of administrative data sources prove more challenging.

This timescale is still very challenging as it requires new systems across data acquisition and processing/production of statistical outputs. If implementation of rationalisation/integration of business surveys is delayed for any reason, we could then choose to translate them 'as is', with the associated impact of not rationalising/integrating.

This option maintains momentum toward the integrated data collection vision, and the development of a fully re-usable survey data collection platform. However, it does extend the current target date for getting all business surveys 100 per cent online by a year.

Table 1 – Options advantages, disadvantages, costs and benefits

Option	Advantages	Disadvantages	Estimated Increased BDD Cost	Estimated cash benefit
<p>1. All business surveys online by March 2018</p> <p>Design email solution to integrate with legacy processing systems. Involves manual data keying or use of products such as Adobe Livecycle</p>	<ul style="list-style-type: none"> Potential reputational gain of speeding up from current target date of March 2019 in ONS Business Plan 	<ul style="list-style-type: none"> Reputational risk as could not meet required security level for data submitted electronically by businesses Significant increased costs due to associated manual set-up and processing of 2 million questionnaires/reminders per year Need approx three months to design a solution Potential significant risk to data quality given manual processing Adobe Livecycle is expensive to purchase and license; is unlikely to be approved by GDS; has browsing incompatibilities and therefore security issues and would require significant integration work with legacy systems Does not meet GDS standards of digital by default and lack of user research We do not know if there would be risk to delivery of the DTM transformation agenda in terms of other transformed platforms No survey rationalisation or use of administrative data with associated loss of cash and statistical benefits, slowing down transformation approach to moving to a register/linked data approach Limited cash savings from moving 'online' 	<p>Up to £4 million per year whilst solution in place (47 per cent increase on current Business Data Division (BDD) running costs)</p>	<p>Maximum of £546,000 per year from 2018/19 associated with outgoing paper and postage costs</p>
<p>2. All business surveys online by March 2019</p> <p>Continue development of strategic survey data collection products; translate most/all survey questionnaires</p>	<ul style="list-style-type: none"> Current target date in ONS Business Plan for all business surveys online Associated reputational gain Starts to deliver real change 	<ul style="list-style-type: none"> Risk of significant increased cost to maintain data quality Risks to annual data quality underpinning GDP (Blue and Pink Books) as less time to design/user test for the online mode, e.g. annual surveys May require bespokeing of functionality which would detract from taking the Service Oriented Architecture (SOA) approach to provide reusable platforms across ONS Very likely to create technical debt that will need to be re-worked May cause risk to delivery of the DTM Transformation 	<p>Range of £1 - £2 million per year until questionnaires have been fully redesigned/tested for online use</p>	<p>Maximum of £1 million per year from 2019/20 until surveys are rationalised/integrated with admin data</p>

Option	Advantages	Disadvantages	Estimated Increased BDD Cost	Estimated cash benefit
online "as is" with limited or no survey rationalisation or admin data integration		<p>agenda in terms of other transformed platforms as focuses resources on the Survey Data Collection platform</p> <ul style="list-style-type: none"> • May limit progress on moving social surveys online as existing DTM resources would be focused on business surveys • Limited or no survey rationalisation or use of administrative data with associated loss of cash and statistical benefits, slowing down transformation approach to moving to a register/linked data approach • Will require significant re-work when we later rationalise surveys/integrate admin data • Possible reduction in projected staff savings as would not implement more advanced eQ validation • May impact adversely on some European Statistical Training Programme (ESTP) goals unless tactical solutions adopted within their processing/systems 		
<p>3. All business surveys online by March 2020</p> <p>As option 2, but complete as much survey rationalisation/integration as possible when moving online</p>	<ul style="list-style-type: none"> • Less risk to data quality as can do more redesign/user testing to move to the online mode • More likely to make progress with putting social surveys online • More likely to achieve estimated cash savings in DCTP Business Case • Takes a Service Oriented Approach to the Survey Data Collection Platform and mitigate the risks of Option 2 associated with DTM Transformation • More likely to achieve some business survey rationalisation/integration of admin data with associated statistical and cash benefits • Still challenging but more in line with current ESTP business goals for transforming business statistics 	<ul style="list-style-type: none"> • Does not fully meet current ONS Business Plan target of <u>all</u> business surveys online by March 2019. Will likely only have 86 per cent partially or fully online by then • Associated reputational damage • Extends BDD DCTP costs for a year beyond 2018/19 	£0.8 million BDD DCTP cost in 2019/20	Maximum of £1.5- £2 million per year (gross) from 2020/21

Annex B – A brief history of ONS online survey collection

1. It has been long-standing aspiration of ONS to modernise its data collection operation, including the placing of surveys online. Indeed, strategic papers back to the late 1990s talk of an aspiration to collect data electronically. In 2010, a small project to move business surveys online began in response to the increasing costs of processing paper questionnaires and enquiries from business survey respondents. A small proof of concept pilot was conducted which proved the viability of using online questionnaires.
2. In the early years, online survey development suffered from significant challenges over the funding and priority given to “EDC”, partly given other priorities in a limited investment fund, and an internal IT buyer/supplier model which relied heavily on an aged IT estate and approach. In April 2013 a more formal project was constituted and ONS began to build a single system incorporating a response and respondent capability and an online questionnaire. This programme was called the Electronic Data Collection programme (EDC).
3. In January 2014 “EDC” began to receive low volumes of responses and continued development of a pilot online version of our Monthly Wages and Salaries survey which ran from May 2015 into 2016. This pilot demonstrated very effectively, and to fine levels of detail, the largely negligible mode effects of collecting business surveys data online. However, the technology choices taken back in 2013/14, both around use of the infrastructure and the use of proprietary (non-open source) software development tools, has since caused problems with implementation at scale.
4. In the latter part of 2014 ONS developed a new Digital Strategy and began introducing a new Technology/Digital leadership team. In May 2015, the National Statistics Executive Group requested that this team conduct a review of EDC. This looked particularly at the technology used and the approach to product development. Their conclusions, which drew on the input of senior Government Digital Service expertise, were broadly that:
 - i. an approach based more closely on the new ONS Service Oriented Architecture/Enterprise Architecture model should be adopted;
 - ii. there needed to be a shift to cloud-hosting and open source software;
 - iii. more flexible Agile development (requiring greater agile maturity) utilising the product based “Dev/Ops” model should be adopted; and
 - iv. governance should be more agile, with more rapid, collaborative and delegated decision making. In other words a shift from top down boards serviced by detailed and often dated papers, to the placing of greater responsibility with Service Managers, Product Owners and with greater transparency via show and tells, supported by weekly Director level “key issue” meetings.
5. The implications of “EDC Assess”, which were discussed with the Authority Board in June 2015, were that:
 - i) a new electronic questionnaire product team should be set up (splitting the older EDC platform into multiple products) and that; and
 - ii) the existing “EDC” response and respondent management system – whilst able to handle the load in the short-term - would need to be replaced to handle the planned business survey eQ volumes.
6. The review was welcomed by the National Statistics Executive Group and the UK Statistics Authority Board and the new team eQ stood up in September 2015.
7. From September 2015, the focus was on developing the eQ, drawing on the learning from the Monthly Wages and Salaries Survey pilot and conducting additional targeted user research, to support a first survey online (the Monthly Commodities Inquiry, (MCI))

from April 2016. This was achieved, after which the target was then to place a further 5 business surveys online during 2016/17.

8. Whilst progress was then good to ramp up the MCI to the wider Retail Sales Inquiry, the decision to utilise single products, e.g. eQ for use across ONS meant that during the summer of 2016 choices were needed over how best to support the needs of the April 2017 Census test whilst also continuing the work to place business surveys online.
9. ONS were also approached to conduct the two-yearly UK Innovation Survey for the Department of Business, Energy and Industrial Strategy (BEIS) with income generation of around £500,000. This led to the decision in September 2016 to prioritise the Census test until December 2016, the UK Innovation Survey for February 2017 and two additional business surveys for the end of March 2017.
10. In April 2016, following the 2015 spending review, EDC was subsumed as a workstream within the wider Data Collection Transformation Programme. This ambitious programme of work spans five work-streams (online surveys, survey rationalisation, data integration, systems integration and field modernisation). Each of these is dependent on a combination of digital technology products, business change activity and methodological expertise.
11. A business case for the new programme was presented to HM Treasury in April 2016 (approved in August), and an external Programme Assurance Review was conducted in May 2016. This review was positive about the work to initiate the programme and stressed the need for a clear view of across ONS priorities.

Annex C – Response to questions raised by the Board members

- i. Have we got the capability to do it?

We have come a very long way in terms of our delivery model, however, there are pinch points, for example around the methodological capacity needed to service all that we are seeking to do and evidence of market saturation in terms of available skills externally. However, if we are very clear on our priorities across ONS and continue to develop in a thin slice across the Platforms then we will continue to see progress.

- ii. What lessons have been learnt from the protracted story so far?

There is a long history to this work, and if we had our time again we would approach things differently. That said, in some respects our approach is now envied by others and we are ahead of some sister organisations; as evidenced by the desire of the Central Bureau of Statistics (CBS) Netherlands to market our eQ product. The fact that we now have surveys online and are using a single set of corporate product across the whole business is a major change and achievement. The key lessons really have been:

- Abide by the government Digital Service (GDS) service delivery model – which is what we are now doing via our service focused product development teams, agile/sprint based methods and more immediate support and governance;
- Building strong development and delivery collaborations – no buyer/supplier or us/them relationships;
- Ensure we succeed together and not in silos – we've worked hard to break down some of the traditional organisational and location barriers with across site teams and regular service and product level show and tells.

- iii. A live demonstration during the meeting is not necessary, but something available during lunch would be welcomed.

We will provide a means for the Board to experience the eQ in its development/test environment.

- iv. Can we see an example paper form side-by-side with the e-form on the iPad?

We will make copies of those available in the margins of the meeting.

- v. Give an example of something that's gone well and an example of something where, when you have looked at it more closely, it was more difficult than you thought.

The monthly Retail Sales Inquiry (RSI) is now fully online (5,000 businesses including the largest GB retailers). There has been no impact on response or data quality. Some of the necessary advanced functionality still doesn't exist but we are managing this through use of manual workarounds. The UK Innovation Survey proved harder than anticipated to go online. It has a complex set of "grid" questions which are tricky and laborious to do on paper. As such, we conducted a period of intensive user testing and research utilising our design team and user research expertise, to identify a quicker and easier way of asking this type of question. As a result the question flow, routing and functionality of the eQ were all amended accordingly and have delivered a much more usable result. The questionnaire is still cumbersome in its length, but we are reviewing this further for future.

In contrast, bringing on one of our smaller business surveys (Vacancies) turned out to be far more tricky than anticipated due to the complex and unusual way that it had been implemented on legacy systems. For that reason, we have postponed moving this online - it may turn out that the problem is easier post rationalisation.

- vi. Has this boat already sailed? If the future is about administrative data are we looking to invest in something which will be obsolete?

We won't get away from the need to run surveys, but yes, our focus shouldn't be just on placing surveys online. The bigger long-term gains, particularly in terms of data breadth and data flexibility will come from utilising the admin data and rationalising our surveys down to the minimum core set. That, however, is a slow process whereby we will constantly need to explore new data sources and incrementally change and reduce the size and scope of our survey taking activity. Internationally, even those countries that have an administrative data approach to their core statistics still rely heavily on surveys to validate their registers and fill data gaps.

- vii. Please provide some hard metrics. How much are we doing, where we are now, how much is on legacy systems vs new systems, how quickly do we expect things to transition, where do we expect to get to, and an order of magnitude for how hard all of this is.

- Every year we issue around 2 million paper forms and reminders to over 500,000 businesses. The largest businesses receive multiple surveys every month.
- By January around 7,000 businesses will be using our online survey capability (5,000 Retail Sales Inquiry respondents and 2,000 Secure Electronic File Transfer respondents). This equates to around 63,000 online collections per year.
- By March a further 31,000 business will have received a requests to complete an electronic form via the bi-annual UK Innovation Survey.
- We will then start to place a further two business surveys online (Monthly Wages and Salaries Survey and Quarterly Business Survey) in March reaching a further 14,000 business by August 2017. So by August 2017 we will be conducting around 210,000 online collections in total.
- Rolling out across the rest of the 76 business surveys will take time as for some, we seek to rationalise and link with relevant administrative sources and for others it will be dependent upon the windows of opportunity for monthly, quarterly or annual surveys.
- We are also constrained by existing legacy systems and the development of replacement systems, e.g. for downstream processing.
- For household surveys, we currently knock on around 500,000 doors a year. None of our core social surveys are currently online although we are seeking to make this a parallel priority. That would be at the cost of some pace with business surveys.
- During 2017/18 we are looking to place the Opinions Survey online and conduct the necessary research to re-design the Labour Force Survey for online and integration with administrative sources.

- viii. The total number of surveys we want to become electronic and the priority sequence for this to happen.

Eventually we want all our remaining survey taking to be online. For businesses this will be mandatory, for households we expect to provide a significant “Assisted Digital” element. This will include both telephone and face-face support. We are also looking at web-chat type options. In terms of priorities we have a flexible roll-out plan for business surveys, which considers windows of opportunity dependent on complexity and whether it’s a monthly, quarterly or annual survey. For social surveys the focus will be the Opinions Survey and Labour Force Survey. The exact number of business surveys that end up on line will largely depend on our success in rationalising and integrating with the administrative data sources.

- ix. What is the league table of the most burdensome paper forms i.e. the number we send out times the time reported to do them, by person and by business type forms.

Burdensome does not always equate to length of questionnaire. For example, eCommerce is a long questionnaire but response is easy to achieve and it has a good first time clearance rate whereas the Monthly Business Survey (construction) is a small questionnaire but difficult to get response and clearance.

The tables below show the top 10 most costly business surveys within ONS and the top 10 compliance burden on our business respondents:

Top 10 most costly Business Surveys within ONS - annual total						
Survey name	Staff Costs	Other costs	Total	Sample Size	Annual number of forms	Average number of sides
Monthly Business Survey	£816,923	£189,368	£1,006,291	32,000	384,000	2
Monthly Business Survey (Construction)	£778,324	£73,152	£851,476	8,000	96,000	7
Business Register Employment Survey	£649,331	£81,557	£730,888	81,375	81,375	10
Annual Business Survey	£624,416	£49,942	£674,358	62,500	62,500	14
Monthly Wages and Salaries	£461,865	£89,979	£551,844	9,300	111,600	4
Annual Survey Hours and Earnings	£423,317	£97,992	£521,309	110,990	110,990	6
Foreign Direct Inquiry	£479,408	£20,185	£499,593	6,981	6,981	20
Quarterly Capital and Acquisitions Survey	£338,355	£96,508	£434,863	24,795	99,180	7
Purchases	£424,947	£10,454	£435,401	30,000	30,000	20
PRODCOM (Products of the European Community)	£404,270	£19,130	£423,400	21,500	21,500	7

Top 10 Business Survey - Cost to Business Respondent (compliance costs)	
Survey Name	Compliance Cost 15/16
Business Register Employment Survey	£6,538,072.76
Survey into Hours & Earnings	£4,660,070.95
Annual Business Survey	£1,537,628.95
PRODCOM (Products of the European Community)	£846,402.60
Quarterly Capital and Acquisitions Survey	£347,924.56
Monthly Business Survey	£316,942.03
E-Commerce	£263,872.94
Monthly Business Survey (Construction)	£206,643.74
Financial Proving Survey	£172,521.34
Research & Development	£130,412.57

For households, the only Social Survey collected using paper forms is the International Passenger Survey (IPS). The survey is completed as respondents proceed through arrivals and departures at airports, on certain sea crossings, the Eurotunnel while passengers are in stationary vehicles, and portside while waiting to embark at certain seaports. Approximately 250,000 individuals are eligible for the survey and participate. The average length of an IPS interview varies according to the type of respondent (migrant, holiday maker etc) but is typically no more than 5 minutes.

- x. The cost per response, now vs the future.

As a very crude measure the cost per overall response is simply the ratio of survey forms to operating costs. The costs are higher for social surveys due to the cost of face-face contact.

Based on our research and pilots we believe that we can realise approximately 15-20 per cent saving on business survey staff costs and around 50 per cent of our other costs, i.e. printing, postage etc.

The cost to run the social survey field operation in 2015/16 was circa 24 million of which external income (from other GSS survey work) was circa £12million. Operating costs are expected to fall by about £2.9 million per annum gross, following the statistical and operational transformation of Social Surveys.

- xi. Definitions of what the differences are between: electronic data collection; online data collection; data collection transformation; etc.
- Electronic Data Collection is the old (pre-Spending Review) programme name for shifting our survey collection online.
 - Data Collection Transformation is the broader programme borne out of the spending review which includes wider plans for non-survey and survey data integration, system integration (including around new registers), surveys rationalisation and field-force modernisation.
 - Online data collection is the work-stream name within DCTP for the transformation of survey taking from paper, telephone data entry and face-face to self-completion online.

- xii. What datasets might be most suitable for electronic collection, in terms of behavioural incentives?

All social surveys that move on-line are likely to require incentives to help maximize participation in these voluntary surveys. Research work is ongoing to establish the optimum incentive strategies as well as the best ways of approaching potential respondents. Behavioural Insight research is informing the design of how best to approach potential respondents.

- xiii. Question xi (definitions) below, could the definitions of online vs collection via hand-held devices in face to face interviews also indicate the roles these are expected to occur in. (For example, the first for business surveys and the second for social surveys).

For social surveys, our aim is to be digital by default with respondents accessing a cloud based on-line questionnaire. Any interviewing that is also required via more traditional modes (face-to-face and telephone interviewing) is likely to involve interviewers accessing a cloud based on-line questionnaire also.

- xiv. What is the relative cost of creating an electronic vs paper collection system?

If we exclude the costs of handling and processing data 'on receipt', the costs of creating an online collection system are inevitably higher than for paper. For paper, the major costs are in form design, printing, interviewing, scanning and postage. For online, the costs are dominated by the creation of the secure online electronic questionnaire and response and respondent management capability. However, there are further costs in the creation of new products for administrative data handling and storage, new registers (business and address) and in matching and linking the data in a secure and repeatable manner. Together, these costs are determined by the overall priorities across ONS transformation. For DCTP alone, the business change costs during the spending review period are expected to total around £28 million. We are expecting data collection cash benefits by the end of the programme to reduce the data collection operating costs by around £5 million per year.

- xv. What are other countries doing with regards to EDC?

Countries across the world are at very different stages regarding their shift to online/electronic data collection each with their own different context (legal and operational) and challenges. ONS maintains a high level of global engagement, particularly within Europe, but also with Canada, Australia, New Zealand and the US in particular. At recent international discussions on data collection it is clear that globally there's no shortage of ambition. There is a huge desire and aspiration to change how data is collected and lots of ideas about how this should be done. Greater use of non-survey sources is a common aim, as is the greater use of "sensor" data so we can dramatically increase the depth and breadth of statistics whilst also reducing the burden we place on any individual respondent or business. In recent Censuses, Australia even after their well publicised web site problems achieved a 58 per cent on line response rate (target 60 per cent), whilst Canada had a 68.3 per cent overall on line response rate (target 65 per cent).

Looking across the world, it's fair to say we have been slow in the UK in putting our surveys online – many countries are already getting 20-40 per cent of their household survey responses online, and for businesses some countries are exceeding 95 per cent online completion. That said, many have missed the opportunity to transform as they go and so are still operating with many legacy

surveys and systems. There are some good examples of using online technology, but a fair recognition that this - on its own - is not a transformation of how we do business. What is more transformative is greater use of non-survey data, increasingly structured around registers. Indeed, there are some great examples of where countries have been able to do this for research purposes, but – so far at least – few examples of National Statistical Institutes (NSIs) actually using it in the statistical production process.

Also, related to the transformation, there are some very positive discussions around survey rationalisation. The UK proposals have received a huge amount of praise – both on social and business data fronts and our ideas chime particularly well with Australia and Canada where there is a clear desire for greater collaboration. For example, to combine global work on incentives with the desire to access greater sensor data, such as from mobile phones.

In terms of benefits, it is clear that there are savings to be had from the use of non-survey data, including from reducing sample sizes. Our recent international research conducted with 15 NSI's indicated that whilst savings were derived from placing surveys online, the biggest benefits were realised from the integration of non-survey data and we will shortly be undertaking a further research piece with these countries to get more specific details and feed this into our own benefits trajectory. However, the international view is also that non-survey data alone isn't a silver bullet. This is for reasons such as data "currency" – it can lag – and because it doesn't necessarily correspond to the required definitions.

There's also the challenge of statistical discontinuities. In New Zealand they'd done everything they could to shift away from an old Quarterly Employment Survey, but political worries about impacting a key series that informs pension levels got in the way of closing the survey down. In the UK, we are aware of such challenges and don't underestimate the need to be extremely effective in our stakeholder engagement; working constantly with our users. What matters is that we continue to invest in understanding our data and the application of sound methodology principles; working closely with our stakeholders.

This aligns well with what we're doing in ONS. We have a clear vision on making better use of non-survey sources, and programmes set up to focus our efforts in those areas. We've also recently had a review of our methodology, which will help strengthen our capability further. All these things support our gradual shift into greater use of non-survey data. Similarly, Economic Statistics Transformation Programme (ESTP) are focusing their efforts on the use of non-survey data – VAT for example – in their National Accounts outputs. In short, we are lined up very well across ONS to pull in the same direction and remain a world leader.

- xvi. What are private sector survey organisations doing, how this is regarded, and how does this compare with our EDC? E.g. pollsters/companies like Yougov?

All survey organisations and survey commissioners are seeking to introduce an online mode to their surveys and survey operation. The key enabler is the availability of technical infrastructure. ONS is choosing to build an eQ tool whilst organisations like Ipsos Mori, Kantar and NatCen Social Research are using off the shelf packages such as Unicom Intelligence or Blaise. Kantar, for example, are conducting the Cabinet Office Community Life Survey in a solely online mode. Response rates are in the region of 20-30 per cent and there are difficult statistical continuity issues to be addressed. Our approach is designed to assess the impact of this early on. Probability based sampling is key to our methodological approach. All survey

organisations, worldwide, face difficulties in encouraging high levels of online participation without an interviewer interface. Higher online response rates can be achieved from self-selecting panels but there are significant issues with representativeness. The outcomes of General Election polling are illustrative of the problems that can occur.