UK STATISTICS AUTHORITY

Minutes Thursday 1 July 2021

Hybrid Teams Meeting Drummond Gate, London

Present

UK Statistics Authority

Sir David Norgrove (Chair)
Sian Jones (Deputy Chair)
Professor Sir John Aston
Sam Beckett
Helen Boaden
Robert Bumpstead
Professor Sir Ian Diamond
Richard Dobbs
Professor David Hand
Professor Jonathan Haskel
Ed Humpherson
Nora Nanayakkara
Professor Sir David Spiegelhalter
Professor Anne Trefethen

Also in attendance

Jonathan Athow
Nick Bateson
Owen Brace
Sally-Ann Jones (Secretariat)
Will Laffan (for item 12)
Jay Lindop (for items 8 and 9)
Alison Pritchard
Emma Rourke (for item 10)
Becky Tinsley (for items 8 and 9)
Nicola Tyson-Payne (for item 8)
Amy Williams (Secretariat)

Apologies

None

1. Apologies

1.1 There were no apologies received.

2. Declarations of interest

2.1 Richard Dobbs had noted a conflict of interest regarding the COVID-19 Infection Survey agenda item in advance of the meeting.

3. Minutes and matters arising from previous meeting

3.1 The minutes of the previous meeting held on 7June were agreed.

4. Report from the Authority Chair

- 4.1 Non-executive directors had met prior to the Board meeting. They had discussed the Terms of Reference for the forthcoming review by the Cabinet Office of the Authority.
- 4.2 The Chair noted thanks to Professor David Hand on behalf of the Board as this was his last meeting. Since joining the Authority Board as Non-Executive Director Prof Hand had shared his expertise on statistics and had served on the Regulation Committee, the Applied Data Ethics Independent Advisory Committee, the board of the Administrative Data Research Network, and more. The Chair welcomed Professor Sir John Aston who had been appointed to the Authority Board with effect from 1 July.
- 4.3 The Chair reported on his recent activity since the Board last met highlighting his meeting with William Wragg (Chair of the Public Administration and Constitutional Affairs Committee), alongside Professor Sir Ian Diamond and Ed Humpherson. Sir David and Sir Ian had met the Minister for Constitution and Devolution regarding the Concordat on statistics.

5. Report from the Chief Executive [SA(21)36]

- 5.1 Sir Ian provided the Board with an overview of activity and issues since the last meeting, highlighting the following:
 - i. Sir Ian congratulated colleagues across the Authority including Prof. Aston who had been recognised in the 2021 Queen's Birthday Honours;
 - ii. Sir Ian had presented at a National Core Studies meeting on the health surveillance work:
 - iii. Sir Ian had met with statisticians at the Department for Health and Social Care reflecting on one year since the launch of the strategy, Statistics for the Public Good;
 - iv. HM Treasury were considering the Integrated Data Programme Full Business Case;
 - v. Sir Ian had met with the Chief Secretary to the Treasury regarding improvements to the use of data in government; and
 - vi. the presentation on the Data Masterclass for Senior Leaders by Tom Smith, to Ministers on 10 June at the Government Digital, Data and Technology Steering Group. Sir Ian would be presenting the masterclass to Permanent Secretaries in the coming weeks.
- 5.2 Sam Beckett provided an update on the BASE Review of enabling functions, which included the introduction of a flexible analytical hub. The review would also underpin preparations for the forthcoming Spending Review 2021. Efficiencies would form part of the Spending Review with continued investment in staff development and subsequent reduction in contractor spend.
- 5.3 Board members discussed crime statistics, including statistics about violence against women and girls. It was agreed a paper would be provided for a future Board meeting.

6. Report from the Director General for Regulation [SA(21)37]

6.1 Ed Humpherson provided an update on regulation activity highlighting that OSR's programme of work did not currently include statistics on violence against women and girls, but would consider this further. The review of statistical releases times was

- ongoing with a paper scheduled for the forthcoming Regulation Committee meeting. The review of National Statistics Designation was ongoing with discussions scheduled with Heads of Profession and an update scheduled for Regulation Committee.
- 6.2 The Board heard that OSR had written to the Joint Biosecurity Centre reminding them of the importance of transparency of statistics. Following the publication of the Review of Income-based Poverty Statistics OSR had undertaken a number of public engagements on this subject.

7. Report from the Audit and Risk Assurance Committee

- 7.1 Nora Nanayakkara reported on the Audit and Risk Assurance Committee which had met on 30 June.
- 7.2 Committee members had considered the Annual Report and Accounts 2020/21 and recommended the National Statistician's approval subject to the resolution of an issue in relation to valuation of properties.
- 7.3 Nora Nanayakkara reported that based on the work of the Committee during the year and assurance work carried out by external and internal auditors, it was her opinion that the Authority's governance and control framework was generally effective. The Committee had welcomed the improved Moderate audit opinion by the Head of Internal Audit.
- 7.4 The Board noted thanks to the Chair and the Committee for their work during 2020/21.

8. Census and Data Collection Transformation - 2023 [SA(21)38]

- 8.1 Nicola Tyson-Payne and Becky Tinsley introduced a paper which provided an update on progress as the Census journey moves from collection to processing and outputs and dissemination. The main focus was on the journey towards the 2023 recommendation on the future of the Census.
- 8.2 Nicola Tyson-Payne reported that the Census Coverage Survey was complete with a good response rate, and the non-compliance operation was ongoing.
- 8.3 Becky Tinsley presented on the progress towards the 2023 recommendation. The Board heard about the transformation of population and social statistics. Work was ongoing to provide the evidence base to inform the recommendation in 2023 on the future of the Census.
- 8.4 The Board would remain engaged on the progress toward the 2023 recommendation on the future of the Census. The Board noted their thanks for an excellent presentation.

9. Presentation: Migration Statistics

- 9.1 Jay Lindop presented on the work on migration statistics to measure population change; to inform public debate; and inform public policy.
- 9.2 The Board noted their thanks for an excellent presentation.

10. COVID-19 Infection Survey and Surveillance Studies [SA(21)39]

- 10.1 Emma Rourke introduced a paper which provided an update on the COVID-19 infection Survey (CIS) programme. The survey had maintained performance, with swab testing targets being met.
- 10.2 In preparation for the Spending Review consideration was being given to costings and the development of the strategic outline case for future public health surveillance.

11. Annual Report and Accounts 2020/21 [SA(21)40]

11.1 Nick Bateson introduced a paper which provided an overview of the Authority's Annual Report and the key audited financial results for the year.

- 11.2 The Board had earlier heard that the Annual Report and Accounts had been approved by the Audit and Risk Assurance Committee meeting at its meeting on 30 June, subject to the resolution of one issue. The National Statistician was scheduled to sign the report on 8 July.
- 11.3 The Board approved the Annual Report and Accounts 2020/21 ahead of publication.

12. EU Exit Statutory Instrument [SA(21)41]

- 12.1 Will Laffan introduced a paper which summarised the proposed Statutory Instrument (SI), The UK Statistics (Amendment etc.) (EU Exit) Regulations for the approval of the Authority Board.
- 12.2 The Board heard that the SI would complete the legislative programme, relating to EU laws on statistics. The UK statistical system would continue to function according to the UK's domestic legal framework for statistics.
- 12.3 The Board approved the draft SI and draft Explanatory Memorandum.

13. Any other business

13.1 The Authority Board would meet next on 1 July 2021.

UK STATISTICS AUTHORITY

Agenda

1 July 2021, 10.30-14.00 - hybrid teams meeting

Chair: Sir David Norgrove

Apologies: None

Attendees: Will Laffan (for item 10), Jay Lindop (for item 7), Emma Rourke (for item 8),

Becky Tinsley (for item 6), Nicola Tyson-Payne (for item 6)

NED Session: 10.30-11.00

1 11.00-11.05 5 mins	Minutes and matters arising from previous meetings Declarations of interest	Meeting of 7 June 2021
2	Report from the Authority Chair	Oral report
11.05-11.15 10 mins		Sir David Norgrove
3	Report from the Chief Executive	SA(21)36
11.15-11.35 20 mins		Prof. Sir Ian Diamond
4	Report from the Director-General for Regulation	SA(21)37
11.35-11.45 10 mins		Ed Humpherson
5	Report from Committee Chair	Oral report
11.45-11.55 10 mins	Audit and Risk Assurance Committee	Nora Nanayakkara
6	Census and Data Collection Transformation - 2023	SA(21)38
11.55-12.40 45 mins		Nicola Tyson-Payne Becky Tinsley
12.40-12.50 10 mins	Break	
7 12.50-13.15 25 mins	Presentation: Migration statistics	Jonathan Athow Jay Lindop
8	COVID-19 Infection Survey and Surveillance Studies	SA(21)39
13.15-13.35 20 mins		Emma Rourke
9	Annual Report and Accounts 2020/21	SA(21)40
13.35-13.45 10 mins		Nick Bateson
10	EU Exit Statutory Instrument	SA(21)41
13.45-13.55 10 mins		Will Laffan
11 13.55-14.00 5 mins	Any Other Business	

Next meeting: 29 July 2021, 10.30-14.00

SA(21)36

Chief Executive's Report, June 2021

Purpose

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

Summary

2. June has been a busy month for the statistical system, in the run up to summer. ONS data has continued to be central in **understanding the impact of the Delta variant**, providing crucial evidence to inform decisions around the delay to Step 4 of the Government's Roadmap. Our Census work has also continued on a successful path, and following a response rate of over 97 per cent, the **Census Coverage Survey** has now also concluded. The programme has now turned to the non-compliance operation.

Review of recent activities

- 3. At the start of June, I presented at the **National Core Studies** (NCS) leads meeting on our health surveillance work, which continues to inform the Government's response to COVID-19. On 2 June, I participated in the **Institute for Government's Data Bites** event for a keynote on 'unlocking location data for the benefit of the UK'.
- 4. On 10 June, I had the pleasure of speaking with statisticians at the **Department for Health and Social Care**, reflecting on one year since the launch of 'Statistics for the Public Good'. The session received strong positive feedback, with questions on several topics. On the same day, I joined a panel event at **Wonkfest** for their Data Decade Event where I discussed the use of data in decision-making.
- 5. Towards the end of June, I delivered a session at **Civil Service Live** with David Wood (Head of the Geography Profession) on the role of analysis within government and presented sessions at the **HDRUK One Institute Conference** on national surveillance.
- 6. Internationally, on 24 June I was enrolled into the **UNECE Conference of European Statistics (CES) Bureau** as well as attending the **OECD's CSSP Bureau**. We discussed climate action, circular economy, and the modernisation of official statistics.
- 7. Following the BASE review, I have this month announced the launch of a **new multi-disciplinary Analytical Hub** to undertake cross-cutting analysis, ensuring we are responsive to informing emerging policy priorities. This will allow us to bring together colleagues sustainably in an agile and responsive way, capitalising on some of the improved ways of working from the past year. I have also brought together teams to form a cross-ONS division to focus on **sub-national statistics and analysis**. This will help provide better data and analysis to inform the **levelling-up agenda**.
- 8. As part of this restructure, I have also created a **dedicated Environment**, **Net Zero and Natural Capital Division** to include our work on climate change and provide a clear focal point within ONS for analysis to support the growing agenda and requirement on Net Zero. This will build on our existing green recovery and green jobs work, and allow space for the expansion of our natural capital work.
- 9. This month I was delighted to publicly announce the launch of a strategic partnership with the **Alan Turing Institute.** This will help produce better and faster estimates of economic changes while preserving privacy. It centres on three projects: Understanding Economic Networks; Economic nowcasting; and Synthetic data and privacy preservation.
- 10. Michael Gove made a speech on a new **Declaration on Government Reform** which aims to create a modern Civil Service; one that is skilled, innovative, ambitious and

- improves the lives of citizens. I am discussing with my fellow permanent secretaries how statistics, analysis and data can play a leading role in this agenda.
- 11. Tom Smith presented the 'Data Masterclass for Senior Leaders' to Ministers on 10 June at the Government Digital, Data and Technology (DDaT) Steering Group. After development with Number Ten, the Data Science Campus will now lead this and scale-up the programme. Lord Agnew asked that ONS ensure the most senior officials across government access the course and I will be presenting the Masterclass to Permanent Secretaries in the coming weeks.
- 12. Our health surveillance work continues to provide data and insight informing the COVID-19 roadmap. Positivity and variant analysis from the Coronavirus Infection Survey (CIS), alongside our linked Public Health Data Asset and antibody data, informed the decision to delay Step 4. The final round of the School Infection Survey commenced on 14 June testing both staff and pupils. I have begun discussions on requirements for continued monitoring and virus surveillance with a variety of stakeholders.
- 13. The **Census Quality Survey went live on Monday 28 June**, with letters landing in around 55,000 households in England and Wales. The Census Quality Survey measures respondent error and is a telephone survey, with people volunteering their telephone numbers. Telephone interviewing is planned to start on 1 July.
- 14. I would like to congratulate colleagues who have been recognised as part of the Queen's Birthday Honours. Myer Glickman OBE for services to health analysis, Sarah Caul MBE for services to health statistics, Sue Reeves MBE for services to disability, diversity and inclusion, and Professor Sir John Aston for services to statistics and public policymaking.
- 15. Finally, as I have informed you, the UK Statistics Authority has been awarded Gold in **Mind's Workplace Wellbeing Index 2020-21**. This accreditation recognises the hard work and commitment to improving the mental health and wellbeing of colleagues in our organisation. The Gold award means that we have successfully embedded mental health into policies and practices while demonstrating long-term, in-depth commitment to colleagues' wellbeing.

Professor Sir Ian Diamond, National Statistician, 23 June 2021

Update from the Director General for Regulation

Purpose

16. This paper provides the UK Statistics Authority Board with an overview of OSR priorities and activities.

Discussion

- 17. After an extremely busy May, June has been a slightly quieter month. Our main areas of focus in recent weeks have been:
- i. Review of National Statistics (NS) Designation: On 8 June we published Phase 3 of the NS Review¹ setting out the findings from our consultation with producers. By the time the Board meets, we will have also spoken with Heads of Profession to gather further views. We will be discussing the review in more detail with the Regulation Committee in July. On an unrelated policy issue, we are looking at whether the adoption of a range of release times for statistics during the pandemic should be reflected in a revision to the Code (which currently requires a fixed time of 09:30). We will update the Board on this at the end of July.
- ii. **Casework:** We published one piece of high-profile casework this month on the use of unpublished statistics by the Scottish Health Secretary². Scottish Government acted promptly to publish the statistics as an ad-hoc release shortly after the figures were used, demonstrating their commitment to adhering to our expectations and standards. We have also written to the Joint Biosecurity Centre reminding them of the importance of transparency of statistics, particularly when in relation to government decisions (e.g. on countries on Red and Amber Lists)³.
- iii. Regulatory work: Last month, I referenced our reviews of poverty statistics, including a Select Committee appearance, and our review of population estimates and projections. We are expecting responses to these reports in July, so will update the Board next month. Our report on the state of the UK statistical system has been shared with the Regulation Committee for comment, and will be published in early July. Our Annual Report will also be published in July, reflecting on our achievements in 2020/21, delivery against our aims and objectives in the business plan, and look ahead to what we hope to achieve in 2021/22.
- iv. **Recruitment:** On Friday (25 June), Mary Gregory and I will be conducting interviews for a new Grade 6 to lead our research, policy and data programmes.
- v. **Code of Practice campaign:** Over the summer we will be running a communications campaign to boost awareness of the Code of Practice for Statistics. The campaign will focus on each of the pillars of the Code, and feature a series of blogs about the Code, why it matters, and how we apply it.
- vi. **Outreach:** I've recently given virtual lectures to a couple of universities and the RSS on the exams review and statistical models in public policy, and was a speaker at the Investor Relations Society annual conference. These have been a great opportunity to highlight our work, and have generated some very good questions about our work and role.

¹ https://osr.statisticsauthority.gov.uk/publication/national-statistics-designation-review-phase-3/

 $^{^2 \, \}underline{\text{https://osr.statisticsauthority.gov.uk/correspondence/ed-humpherson-to-roger-halliday-use-of-hospital-admission-data/} \\$

³ https://osr.statisticsauthority.gov.uk/correspondence/ed-humpherson-to-johanna-hutchinson-jbc-transparency-in-statistics/

18. On my mind at the moment is the general issue of transparency and availability of information. While there have been significant improvements over the course of the pandemic, there is always the risk around major announcements (e.g. of lockdown restrictions) that analysis is either leaked in advance or not made fully available. We will continue to monitor this risk.

Ed Humpherson, Director General for Regulation, Office for Statistics Regulation, 23 June 2021.

List of Annexes

Annex A Regulatory dashboard

Regulatory Activities June 2021 - AB

Health and Social Care	Economy	Population and Society	Agriculture, Energy and Environment	Children, Education and Skills
Covid-19 - Lessons Learned Review: Working on findings and recommendations for project on lessons learned for health and social care data during the pandemic. Assessment: General Pharmaceutical Services published by the NHS Business Services Authority: assessment report currently being drafted. Systemic Reviews: Mental Health (NI): The draft report has been shared with the producer team for comment prior to July publication. Adult Social Care (GB): carrying out producer engagement to follow up actions from reports published in 2020. Casework: continue to respond to items of casework; starting to see concerns wider in scope than COVID-19 statistics.	meet the requirements Systemic Review: Post Brexit ONS Economic Classifications – User consultation continues, working closely with UKSA on the development of ONS new arrangements for classification. HMRC Review Further errors detected by HMRC as a result of OSR's 2020 review. Casework: Levelling up agenda – the transparency	Assessments: Census User and producers meetings continue to be held as part of phase 2 of the assessment. Systemic Reviews: Loneliness Reworking current planned output to reflect positive developments in the measurement of loneliness Population projections ONS are due to report back with plans July 2021. Migration Engaging with ONS on plans for future migration publications. Compliance check: Scottish Household Survey At the request of Scottish Government, we are focusing on the collection and reporting of data on gender identity in the survey.	Compliance checks: Letter for ONS natural capital accounts being drafted. Flood Defence Spending statistics CC underway Systemic reviews: Climate Change statistics: Initial meeting held with BEIS. The review is planned to be structured round OSR climate change recommendations from work done in 2011, 2013 and 2014. Food Statistics: Scoping being carried out along with desk research and initial engagement with Defra.	2020 Exam Results Review: Continuing with dissemination activities including an RSS event. Casework: There are delays to the Ofqual data share project following the 2020 grading. Also, some user demand for data for other nations. TEF: Response to RSS prepared for publication. PISA 2018: Compliance check letters published alongside response to the complainant. Systemic Review: Children and Young People: planning to publish article exploring Children and Young People statistics during the pandemic using our 3Vs framework. Continued engagement with the Centre for Equalities and Inclusion to feed into the work of the Inclusive data taskforce. DFE/ICO audit: Discussed progress with recommendations and lessons learnt for wider GSS with DfE Data Protection officer.

Housing, Planning and Local Services	Crime and Security	Labour Market and Welfare	Travel, Transport and Tourism	Business, Trade and International Development
Compliance checks: Published letter for Home Office Fire incidents statistics. Follow up meetings held with Scottish Government on their Vacant and Derelict Land Survey statistics (27 May); and Welsh Government on its suite of Fire Statistics (9 June). Reviewing MHCLG LA budget statistics for re-designation. Initiating compliance check on MoJ Landlord and Mortgage Possessions statistics with Crime & Security domain. Planning the next steps for the devolved nations' Household Projections CCs following the publication of the OSR Population Review.	Compliance check: preparing letter for CC of MOD regional expenditure statistics. Casework: Published letter		Systemic Review: Accessibility of Transport Networks: Engaging with producers and users of relevant statistics. Compliance checks: Carrying out compliance checks on DfT's new Transport: Disability and Accessibility Statistics publication and ORR's Passenger Assistance Requests. Travel and Tourism: Engaging with ONS on plans for the future of the International Passenger Survey.	Assessments: Annual Business Survey Drafting assessment report. NISRA BESES assessment: User engagement Casework: Concerns raised about Ministers' use of research data on local jobs linked to exports. Chair responded and OSR has discussed with DIT

Census and Data Collection Transformation Programme

Purpose

1. This paper provides a short update on progress as the Census journey moves from collection to processing and outputs and dissemination. Its main focus is on the journey towards the 2023 recommendation on the future of the Census.

Recommendations

- 2. Members of the Authority Board are invited to note:
 - i. the programme retains an amber rating. Census continues to make good progress but much remains to be done across the rest of the programme;
 - ii. the progress made as we build towards a recommendation on the future of the census in 2023. This includes refined lenses through which we will assess our evidence, the work to bring that evidence together and our next steps; and
 - iii. all fully submitted Census response data has now completed pre-processing at least once and all response data that requires manual coding has been delivered to our external supplier (Leidos) on schedule.

Discussion

Programme update

3. The programme remains at amber, the Census and Census Coverage Survey (CCS) collection operations are now closed and our focus in the field is solely on the Non-Compliance Operation. Pre-processing is well underway and good progress has been made. The build of the statistical processing pipeline and outputs and dissemination tools and channels continues.

Census Collection Operation

- 4. Following the success of the Census field operation, the Census Coverage Survey ran throughout May. Response to the CCS over the full collection period was slower than expected, due to the success of the Census, COVID-19 restrictions (meaning interviews were conducted on the doorstep) and the wet weather.
- 5. The CCS response rate is sufficient to support the estimation process and as planned, admin data will be used to continue to support the enumeration.
- 6. We have launched the non-compliance operation, where our aim is to pursue only those who willfully have not responded, and our intention is to prosecute only where necessary. The relaxation of COVID-19 restrictions has made conducting interviews easier.

Census data processing

- 7. All fully submitted Census response data has now completed pre-processing at least once and all response data that requires manual coding has been delivered to our external supplier (Leidos) on schedule. The pre-processing of partially completed responses (i.e. eQ responses that were started but not submitted) is still underway; as is the pre-processing of Census Coverage Survey data.
- 8. As expected, quality assurance, ongoing testing and the data checks run during preprocessing have flagged multiple data quality issues that require resolution before the final Census dataset is ready for statistical processing in September. All issues are being addressed and are not currently expected to impact on being able to commence statistical processing in September for which preparations continue to progress. This

includes recruitment of staff to conduct clerical matching between Census and the Census Coverage Survey. Enough office accommodation on the Titchfield site for the 70+ matchers, supervisors and other staff has been secured and is currently being fitted out to ensure all COVID-safe measures are in place.

Census outputs and dissemination

- 9. Work on step two of our three step approach to output production, publishing, and hosting of outputs capability for Census Outputs continues. A six-week discovery is underway as part of our 'find census' workstream, which focuses on findability and will set out the best way for users to find census information. This will pave the way for the development of a content and channel strategy for census dissemination.
- 10. User research is under way in the 'find a local fact' space, which will support the development of our geography roadmap. We are onboarding new team members to our 'find insight' team, working on delivering rich features to enhance our analysis.
- 11. Digital Publishing is looking to move our platform to the Digital Services and Technology (DST) latest Amazon Web Services environment, which will mean the data will be housed safely with wider benefits including the option to autoscale and additional testing environments. This will contribute to the legacy of transformation from census. Work continues to deliver meta data model and automated process to improve our publishing processes.

Wider transformation

- 12. We have identified synergies between business and social statistics particularly around their design and requirements. Bringing these together into one survey transformation backlog has allowed us to better determine the priority of the requirements needed for the wider transformation programme. To maximise the Census legacy, we are looking to understand how existing Census build can be used to meet these requirements.
- 13. Alongside this we are considering how best the survey transformation area should be structured with a view to structuring our teams so that they align with the technology needed while still maintaining a focus on surveys.

Focus on progress towards the 2023 recommendation

- 14. As described to the Board last year, the aim of an updated system is to provide regular and more responsive population estimates particularly at small areas. This will give an improved level of agility, adapting to reflect modern society and the new challenges it provides e.g. circular migration, illegal people movements, modern concepts of family and households and complexities in living arrangements. It will also allow estimation of alternative population bases such as daytime populations and the monitoring of a wider and more responsive range of variables and population characteristics, including all protected population characteristics and those additional requirements that might emerge in the future.
- 15. Currently our methodology relies on a decennial census which provides the most accurate source of population data from which all our other statistics can follow. Every ten years we are able to collect an updated data set from which we work. This provides high quality small area population and social statistics relating to the year of the census. However, despite its successes, our current system does not meet our users' needs for small-area, multivariate statistics in the intercensal periods when we see the quality of our population statistics decline over the decade.
- 16. As we start to be able to utilize administrative data in a more robust and systematic way we have been researching the ongoing utility of the census, in the context of ever-increasing user demands for data. We know that local authorities and stakeholders are keen to see more timely data to meet their needs. Is it possible for us to reshape the way

we manage our population and migration statistics without the need for an ongoing decennial national census?

- 17. To assess our readiness to update the population and migration system, we have continued to refine the eight "lenses" through which our evidence will be evaluated. The lenses support the 2020-2025 Authority Strategy and its core principles (radical, ambitious, inclusive and sustainable). In summary they are themed in the following way:
 - i. Core: develop approaches to using administrative data for population and migration statistics, population subgroups, and housing stock, to meet core user needs;
 - ii. Ambitious: To really explore the opportunities offered by transformation, through four key elements:
 - improving the accessibility, responsiveness and flexibility of the population and social statistics system, particularly its outputs;
 - ensure that our statistical processing and design are inclusive, with no unintended exclusion of population sub-groups;
 - providing faster indicators of morbidity, economic activity and population movement; and
 - providing new insights through the integration of multiple sources, particularly to analyse outcomes by characteristics.
 - iii. Data-rich: Our statistical transformation seeks to avoid critical reliance on any single data source or supply. The work supporting this lens is led by the Methods, Data and Research directorate, with support from security and Digital Services and Technology (DST), in identifying and acquiring data needed by ONS; engineering it and making it available to users, and linking it to architectural products (e.g. the demographic index);
 - iv. Robust: This lens encompasses the way methods are identified, chosen, and quality assured:
 - v. Compliant: ensuring compliance with various obligations, including the UK Statistical Authority (the Authority) ethical principles, legislation governing ONS activity, and the Authority Code of Practice. It also stipulates that ONS must engage with colleagues in other parts of the UK to identify the impact of transformation on UK-wide statistics and ensure future UK-wide coherence as far as possible;
 - vi. Accepted: This lens covers engagement and consultation with users, the public, government and Parliament. We plan to publish a progress update in autumn 2021, and to engage with stakeholders shortly after:
 - vii. Cost-effective: We have conducted an initial benefits mapping process, comparing core end benefits for example, improved admin data quality through an integrated statistical design, reduced operating costs, better outcomes for citizens through more accurate and timely statistics, reduced respondent burden and improved capability and skills, creating a more motivated workforce;
- viii. Deliverable: We have begun to map out the delivery of transformation and its dependencies on other areas of the Office, described in the next section of this paper.
- 18. Since our last update in October, the teams have been continuing in their efforts to:
 - i. understand the available administrative data and how we can use it to support our needs;
 - ii. consider what further consultation is required to input into our evaluation; and
 - iii. build a stepped plan through to 2023 in readiness for the conclusions of the work and the National Statistician's recommendation to the Authority Board.

Understanding the Evidence

19. The roadmap of evidence for the recommendation focuses on showing what evidence we are aiming to deliver for both of the Core and Ambitious lenses (described in 17 i. and ii. above). The evidence will bring together work being done from across the office. The

- roadmap is underpinned by access to key data sources and methods which will support the delivery of this evidence.
- 20. Our key aims are to confidently produce reliable population and migration estimates by age/sex/small area, and to demonstrate some of the things that are not standard "census-type" outputs. This will help build confidence in users and will provide a clear pathway to the future.
- 21. To achieve this, access to the right sources and the ability to do high quality linkage is key. The system we are designing will harness a range of data sources (admin, survey, 2021 Census, commercial data at both record and aggregate level).
- 22. Key to pulling data together from these sources is high quality linkage. This is required both for linking people and for linking addresses, and this is at the heart of the Reference Data Management Framework (RDMF) and the Demographic and Address Indexes, on which this work relies. The RDMF and its underpinning indexes allows us to link data in a structured, consistent and secure manner. The Demographic Index is a spine of key sources which allows the construction of a unique identifier to enable sources to be linked consistently without the need for identifiable information. The Address Index follows a similar principle, but for addresses.
- 23. While we have on-going access to some health and education data, we continue to work on on-going access to DWP, HMRC and Home Office data. These are critical sources which will provide valuable information about population groups that are not well-covered by other sources (such as migrants and working age males), and also about income which is a topic that is not available through other sources (such as Census) and which continues to be a high-priority area to provide policy insights. Access to these sources will allow us to produce coherent statistics with other government departments and so aligning with a key recommendation from the Office for Statistics Regulation.
- 24. There is also some additional work for us to consider some further research to understand how people behave in terms of their interaction with key sources, and in terms of their digital behaviour. This will help confirm the most appropriate sources to use for particular population groups and will help us understand the utility of gov.uk as a source of information.
- 25. Finally, we are developing a strategy for topics that are not well collected by admin data. Such topics include religion, occupation and family relationships. Some might be collected via surveys and supplemented by estimation methodologies, while for others we might need to make a recommendation that they are collected by specific Government departments (where appropriate to do so).

Consultation

- 26. Due to the scale of the change being considered, ONS legal advice is that a public consultation will be required as a 'legitimate expectation'. Our communications and engagement plan seeks to meet our obligations and inform stakeholders of our plans to develop the 2023 recommendations and understand their feedback.
- 27. The timing of our proposed consultation has been carefully planned to align with other engagement activity across ONS. The consultation will allow stakeholders to understand the nature of the transformation being proposed and provide an opportunity for us to share the framework of evidence from which any recommendation will be based. Engagement will commence in late autumn.

Next Steps

28. We will continue to develop the roadmap, ensuring that it is underpinned by key data acquisition and delivery dates, and methodological developments. This will be supported by detailed plans at the working level, and milestones that will be tracked via the Census

- and Data Collection Transformation Programme (CDCTP) Transformation and Programme Boards.
- 29. Much of the work to transform the population and migration statistics system is essential for the delivery of robust 2021 Census outputs, and to produce a robust picture of the population (via our official Mid-Year estimates) as we emerge from the pandemic. As such we will continue to work alongside Census Data Transformation and Population/Migration Statistics Divisions to ensure alignment and a clear, single narrative for our users. By summer 2022, we will produce our best admin-based population and migration estimates relating to mid-year 2021.
- 30. We are also working with teams from across the office to deliver a series of outputs and research papers over the next 18 months as evidence towards our transformed social statistics system.
- 31. Our approach is to continually develop and refine our methods, working with data suppliers to improve the statistical quality of their data and to make best use of key data sources as they become available. Our key aims are to focus on producing timely and inclusive statistics through this approach, publishing statistics as soon as they are of sufficient quality. As our methods develop, they will be externally assured through the Methodological Assurance Review Panel, chaired by Sir Bernard Silverman.
- 32. The 2023 Recommendation will not be the finishing point for the transformation of our population and social statistics system. It will provide evidence of the transformation completed to date. This will help bring users on the journey with us, to show how a spectrum of data collection approaches will support the delivery of this system and provide a clear pathway through to the future.

Nicola Tyson-Payne, Director of Transformation, Population and Public Policy, Becky Tinsley, Deputy Director, Social Survey Transformation and Research, 21 June 2021

COVID-19 Infection Survey and associated surveillance studies

Purpose

1. This paper provides an update on the COVID-19 Infection Survey (CIS) programme.

Recommendations

- 2. Members of the Authority Board are invited to note:
 - i. the continued successful delivery and high impact of the CIS;
 - recent successful milestones, including the ongoing management of participation attrition; further analysis to support urgent policy decisions; ongoing strategic development; and
 - iii. that the CIS programme remains at Amber, with considerable progress made in addressing key risks on the programme.

Discussion

Survey Performance

- 3. The survey continues to maintain good overall performance with swab tests currently at 4.6 million and blood tests at 531,000 in 2.3 million households.
- 4. Recent attrition rates have remained steady due to participants reaching the 12 months enrolment in the survey and dropping out in addition to the lifting of lockdown restrictions resulting in a higher number of households not attending appointments (DNAs). A new sampling strategy and redeveloped protocol are helping to mitigate further attrition and seek to retain participants until April 2022.
- 5. The Vaccine Effectiveness Monitoring work continues to scale up to 150,000 tests per month. Uptake has been slower than expected for reasons highlighted above and we expect to achieve the target by mid-July. The void rate of samples has also been maintained at an average of 4.3 per cent from 6.46 per cent in May as participants become more familiar with the process.
- 6. We continue to focus on operational efficiencies and improvements with our delivery partner, IQVIA. Efficiencies currently in train and to note are:
 - right sizing of the study worker (SW) resource. IQVIA have completed this exercise and are now operating at the optimum level required. This work aligned with the start of the new contract requirements and smooths out existing under or over resourcing; and
 - ii. results of tests to participants are currently communicated by post. The team are working with partners to mitigate data security risks and move to an electronic process. This will create a substantial financial saving. Implementation is currently on schedule for mid-July.
- 7. The re-competition of the CIS has been completed and the contract was signed by both parties on Friday 11 June.

Impact

- 8. Update on CIS analysis:
- we are conducting analysis to answer the following question: "What reduction in risk of swab positivity is associated with vaccination, overall, of different types, and over time?";

- ii. articles published from the CIS in June have covered antibodies and vaccines take up; vaccine second dose by age and priority group. On 17 June we published a first technical article on infections post vaccine;
- iii. for the Data Debrief Group we have conducted initial analyses on international travel and growth rates which are shared as management information only (these are not yet published);
- iv. analyses on symptoms, social and physical contacts, patient-facing and behaviours post vaccine have been published in recent characteristics articles. Our users for this analysis are NHS England, Public Health England, the COVID-19 Taskforce and the Joint Biosecurity Centre; and
- v. the above, along with the national and regional statistics on infection and antibody positivity will be used to support the next stage of decision making in the roadmap.

9. Update on CIS data linkage:

- i. CIS-Test and Trace (England only) linked data asset update has been delivered. The additional Test and Trace positive tests enables us to better measure the onset or clearance of infection between visits, and is used in the analysis of infection post-vaccination. We are including Test and Trace data in our Poisson model to bolster the information we are missing on prior exposure to COVID-19 between monthly survey visits. The next scheduled linkage update is also now in progress; and
- ii. CIS linkage to Valuation Office Agency (VOA)/Energy Performance Certificate (EPC) data (available for England and Wales only) was run and delivered as scheduled at the end of last month (this is available for all accredited researchers to access). The long-term ambition of the household transmission analysis is to include VOA/EPC data to look at how household conditions may have impacted household transmission—for example, by looking at overcrowding. The next update to this linkage being worked on next week.
- 10. We continue to publish academic papers and are in the process of submitting those which cover:
 - i. growth rates of the Delta Variant New England Journal of Medicine;
 - ii. ongoing monitoring of Cycle Thresholds in cases from the CIS- ELife; and
 - iii. antibody response to vaccination in the community population- Nature Microbiology.

11. Published statistical analysis:

- i. coronavirus and the social impacts on unpaid carers in Great Britain;
- ii. life expectancy in care homes 2011 to 2012, England and Wales;
- iii. prevalence of ongoing symptoms following coronavirus (COVID-19) infection in the UK; and
- iv. analysis of positivity after vaccination.

Schools infection study and Daily Contact Study

12. The Schools Infection Study:

- i. the study completed over 100,000 tests (infection and antibody) from pupils and staff in round 5. The final round, (round 6) is currently underway and there is high engagement and participation from enrolled schools;
- round 5 infection rates and staff antibody results are due to be published 1 July. The MI pack containing round 5 results are due to be delivered week beginning 21 June; and
- iii. the first of two National Statistician round tables of the Scientific Advisory Group for schools was held on Thursday 20 May. This established a uniformity of agreement that there is a continuing need to collect information about children and interest in doing so within the school environment as well as a strong steer to further utilise data linkage opportunities to allow us to maximise the benefits of the data and

understanding already gained with the SIS. The second roundtable is provisionally set for mid-July.

13. Daily Contact Testing (DCT) Trial

- i. over 170 schools are now engaged with the trial and data is being uploaded. The trial is set to run until 25 June and to report to Ministers by 15 July; and
- ii. DCT data is being made available in the SRS.

Monitoring COVID-19 in other settings

- 14. In care homes, in addition to analysis using weighted pillar 2 data, further meetings are planned, with Department of Health and Social Care (DHSC) colleagues to discuss and scope out analysis related to mortality and vaccine efficacy.
- 15. In universities we are partnering with SPI-M Higher Education Working Group to model student transmission in halls of residence using ONS case study data (through ONS Partnership Programme). Planning is underway for a special wave of Student COVID Insight Survey recruiting new students entering HE in Autumn 2021, with a specific focus on mental health and wellbeing.

Opinions Survey on Behaviours

- 16. Our latest data shows the impact of Step 3 in England and easing restrictions across Great Britain with increases in socialising indoors, a continual drop in social distancing and more leisure activities such as visiting pubs, cafes, gyms and hairdressers. Wellbeing scores have almost recovered to pre-pandemic levels and our tracking of Vaccine take up maps well to official sources, along with high levels of positive sentiment.
- 17. Compliance with isolation requirements for those who test positive or contacts through Test and Trace have remained high and stable over several waves. We are also piloting isolation and behaviour surveys for international arrivals. We are in discussion with DHSC, Cabinet Office and HMT to extend our surveys in line with recent decisions on the delay to Step 4.

Population Health Surveillance

- 18. We continue to work closely with the Joint Biosecurity Centre (JBC) on their evolving strategy and with Cabinet Office in planning for the transition from a COVID-19 pandemic to endemic state. Topics such as early warning signs for future COVID-19 variants and other pathogens of concern are being discussed. On 29 June, the CIS Advisory Board will receive a presentation from JBC on their draft surveillance strategy.
- 19. Positive conversations have also been held with the new Office for Health Promotion, which will sit under the Chief Medical Officer and have a particular interest in the drivers of health inequalities and the longer-term impact of COVID-19 on the population.
- 20. A strategic outline business case for population health surveillance will be drafted over the summer setting out our ambition, intended benefits and costs in advance of the Spending Review.
- 21. Costs and lab capacity implications are still being investigated to determine if the CIS will be used to monitor multiple pathogens through the winter flu season.

Next Steps

22. Our strategic work is now considering costings and preparedness for the Spending Review. We will commence a further round of structured senior engagement to complement the development of the strategic outline case to ensure we are moving forward in alignment.

Emma Rourke, Director, Health Analysis and Pandemic Insight, 23 June 2021

Annual Report and Accounts Conclusions 2020/21

Purpose

1. To provide the Authority Board with an overview of the Authority's Annual Report and the key audited financial results for the year.

Recommendations

- 2. Members of the Authority Board are invited to:
 - i. note the final year end performance and position for 2020/21 and the narrative in the Annual Report; and
 - ii. provide final approval for the Annual Report and Accounts prior to sign off by the Accounting Officer and publication thereafter.

Background

- 3. We are approaching the final stages of the year end activities for 2020/21. The attached Annual Report and Accounts will be submitted to the Audit and Risk Assurance Committee (ARAC) for review, comment, and approval at the 30 June meeting.
- 4. 2020/21 has been a significant period for the UK Statistics Authority in terms of delivery, reputational enhancement, and the challenges that we have overcome. These are reflected in our Annual Report and the narrative on performance with the significant increase in organisational finances reflected in our accounts.
- 5. We have received a draft audit completion report from our external auditors KPMG. The report recommends that our Annual Report and Accounts be certified with an unqualified audit opinion and without modification.
- 6. Internal audit has finalised its opinion for the year and concluded that a 'moderate' opinion is appropriate for 2020/21. This is an improvement on the 'limited' opinion given in our previous four financial years and highlights the significant work undertaken across the organisation to improve our risk management and assurance processes.

Discussion

Summary of the final year end performance and position for 2020/21

- 7. Summary outturn against our audited control totals is as follows:
 - i. in terms of Resource Departmental Expenditure Limit (DEL) our year end outturn position is £42.5 million below our budget. This figure is inclusive of depreciation;
 - ii. our revised Annually Managed Expenditure is £12.3 million within budget reflecting the unwinding of unutilised provisions in the year primarily relating to the timing and scale of the take up of incentives under the COVID-19 Infection Survey; and
 - iii. the combined impact of these items and the high value in accruals at the year-end, arising from third party contracts, has resulted in under utilisation of Net Cash Requirement in year of circa £38.2 million.
- 8. In summary, total budgetary expenditure, which is the focus of the Treasury's assessment of our financial performance, is within 8.5 per cent of our total budget. It is important to point out here that organisational budget and expenditure reached unprecedented levels during the year driven by the COVID-19 Infection Survey and Census Data Collection Transformation Programme activity in advance of Census Day 2021.
- 9. The key driver for the outturn is the under expenditure across the Census and Data Collection Transformation Programme. Whilst there have been movements across the Programme budget lines both positive and negative, which would be expected in any

Programme of this scale, the under expenditure in essence reflects an under-utilisation of the original programme budget relating to the field force activity and across the contingency profile for 2020/21. We have successfully negotiated the roll forward of £9 million of the under- utilisation of funding from 2020/21 into 2021/22 to further mitigate any unforeseen impacts on the programme. However, given the key activities associated with Census 21 collection activity have now passed we feel that the programme is well placed to deliver against its objectives well within its budget.

- 10. Our core baseline funding outturn is circa 1 per cent underspent which is in line with our financial targets.
- 11. Therefore, in the context of the position with our key strategic programmes and the financial year more generally, we are able to conclude that we have met our financial targets and Treasury's expectation for the utilisation of our funding.

Key year on year variances

- 12. In assessing the financial performance in the context of prior years the following paragraphs provide a summary of the key variances and their rationale compared with 2019/20.
- 13. Net Operating Expenditure grew by circa 53 per cent from £308 million in 2019/20 to £470 million in 2020/21. This increase relates to activity associated with preparations for Census 2021. It also reflects the continued delivery of the Economic Statistics Transformation Programme, the initial work on the Integrated Data Programme and our work in support of the COVID-19 Infection Survey.
- 14. Net Operating Expenditure however masks the significant increase in gross expenditure (netted off by similarly significant increases in income) primarily associated with the COVID-19 Infection Survey and wider studies in support of Department for Health and Social Care, Cabinet Office and other colleagues across government in the context of the pandemic. As an indicator of the increase in activity during 2020/21 and using gross expenditure as a measure the uplift from 2019/20 to 2020/21 was circa 160 per cent.
- 15. The Net Operating Expenditure reflects an increase in costs of around £540.5 million on 2019/20 levels with an increase in income of circa £378.5 million. The significant increase in costs reflects both the COVID-19 Infection Survey and Census related activity. The significant increase in income reflects the receipts relating to the COVID-19 Infection Survey. Some of the key variances year on year are set out below:
 - staff costs increased by £63.9 million reflecting an increase in permanent and fixed term Full Time Equivalent (FTE) of 741 by the year end. The staff costs position also includes the temporary expansion of our workforce by 15,341 FTE in relation to the Census Field Force;
 - purchases of goods and services increased by £467 million. This unprecedented increase in expenditure reflects third party contracts in relation to Census 21 service delivery and most significantly the third-party field force, incentives and ancillary services provided under the COVID-19 Infection Survey;
 - iii. depreciation charges again decreased in 2020/21 by £2.3 million in comparison with 2019/20 which reflects our continued movement to e.g. cloud-based technology strategies and our policy of reducing the useful economic lives of assets. As we move away from building significant intangible assets internally and as the asset values decrease on our balance sheet the depreciation charges applied reduce; and
 - iv. provision expenses increased by circa £11 million which reflects the timing and scale of incentives payments made to participants under the COVID19 Infection Survey. Incentives have a three-month expiry date and so we have needed to provide for incentives issued in the period but as yet not cashed.
- 16. In terms of Balance Sheet items our total assets have decreased by circa £9 million in year driven in the main by an increase in liabilities this year relating to the impacts of the

timing of third party supplier services associated with our major programmes and our staff holiday accrual (circa £2.8 million higher than is usually the case).

The Annual Report

- 17. The Annual Report is near final. Although we anticipate further changes to the document, we do not envisage that these will materially impact the report or accounts.
- 18. We have one outstanding item to address in relation to settling the value of our estate both for our 2020/21 report and in advance of the proposed transfer of our buildings to the Government Property Agency (GPA) in 2021/22. We are currently in discussions with GPA, National Audit Office and valuers to bring this outstanding item to conclusion. This valuation is largely a technical exercise and will not impact upon our ability to operate.
- 19. Once finalised we will complete the standard editorial and proof-reading activities before the production of the externally published version in line with the corporate template and formats.
- 20. The narrative for the Office for Statistics Regulation (OSR) is undergoing final review and will feature within a separate annex referenced within the main body of the report to emphasise the independence of the OSR's work in the context of the Authority.

The Governance Statement

- 21. The Governance Statement is a key constituent element of the document and is included in section 3 of the Annual Report. In line with Treasury guidance this provides a description of the key governance processes and the role of the Authority Board and its sub-committees. The statement also sets out the risk, control and governance issues that we have managed during the year, the progress we have made and the areas we are seeking to address over the coming periods.
- 22. The conclusions of the Governance Statement point to the established nature of the Authority's overall governance; it recognises the improvements made this year in comparison with last year; and highlights the need to continue to improve the organisation's assurance and risk management capabilities, ensuring that the governance adapts to the Authority's rapidly changing context. These conclusions align with the conclusions of Internal Audit's work and the conclusions of the Chair of the Audit and Risk Assurance Committee.

Next Steps

- 23. Following any further comment from the National Statistics Executive Group, ARAC and the Authority Board and in parallel with any further comments from our external auditors and/or the National Audit Office, the completed document will be passed to the Permanent Secretary as Accounting Officer and the Comptroller and Auditor General for signature.
- 24. The final stage is the laying of the document before Parliament which we aim to do on 15 July 2021.

Conclusion

25. We have remained on track in terms of the year end closure activities and audit as originally planned. We expect to progress the Annual Report and Accounts through ARAC and to sign-off in the first half of July.

Nick Bateson, Director of Finance, Planning and Performance, 22 June 2021

The UK Statistics (Amendment etc.) (EU Exit) Regulations

Purpose

1. This paper summarises the proposed statutory instrument (SI), The UK Statistics (Amendment etc.) (EU Exit) Regulations for the approval of the Authority Board.

Timing

2. The approval of the Authority Board is required before the summer, to arrange the laying of the SI before Parliament shortly after the summer Parliamentary recess.

Recommendations

3. Members of the Authority Board are invited to approve the draft Explantory Memorandum.

Background

- 4. The Authority's EU Exit Programme was established in 2016 in response to the vote for the UK to leave the EU to coordinate the statistical system through EU Exit and is due to conclude this year. As outlined in a paper to the Board in October 2020, which discussed the remaining work for the Programme, an SI is needed to address the remaining retained EU law on statistics.
- 5. The SI follows, and completes, the approach established by The UK Statistics (Amendment etc.) (EU Exit) Regulations 2019, that came into force in March 2019, in revoking retained EU laws on statistics. The second SI is necessary to revoke legislation not covered in 2019, in particular EU legislation made in the intervening two years.
- 6. The approach of the two SIs was discussed and approved by the Board in June and November 2018, while the first SI was being drafted, and is summarised again below. Since the first SI was made, the detail of the UK's withdrawal has been established, and this has confirmed the validity of this approach to the legislation.

Discussion

- 7. The body of retained EU law on statistics results from the European Union (Withdrawal) Act 2018 transferring all EU legislation up to the end of the transition period, including that relating to statistics, directly into UK law. The laws relating to statistics, requiring "member states" to collect statistical data at certain times and in certain ways, and to provide that data to Eurostat are not now appropriate and have no practical effect, now that the UK is no longer a member state.
- 8. Because these obligations are unnecessary and deficient, our approach has been to revoke these laws, using the powers in section 8 of the European Union (Withdrawal) Act 2018. This will end any risk of confusion or challenge arising from them remaining on statute, and leave no ambiguity around the Statistics and Registration Service Act 2007 (SRSA) as the legal framework for the production of official statistics in the UK.
- 9. The SI has been drafted following a comprehensive search to ensure all remaining relevant legislation is covered, and consultation with other government departments, as it refers to statistics produced across the Government Statistical Service, not just the Office for National Statistics. The drafting has been coordinated by the Authority alongside colleagues in the Government Legal Department, and has been slightly delayed in order to prioritise urgent Census and COVID-19 work within our legal resources. Only minimal changes are expected to the SI between now and laying in Parliament.
- 10. As this is the second SI and follows an established approach it is not expected to be controversial. Parliament, government departments and the devolved administrations

- have been aware of the content, scope and impact of the policy approach since 2018 and no concerns have been expressed. Like the 2019 SI, it is expected to follow the negative procedure, meaning it will not require a debate in Parliament.
- 11. Subject to the Board's approval, the draft SI is ready for submission to Cabinet Office Ministers (as well as counterparts in the devolved administrations for their consent where relevant) and is scheduled to be laid in Parliament shortly after Summer recess. As the Authority is a non-ministerial department, the legislation is required to be laid in Parliament by Cabinet Office Ministers.

Conclusion

12. The SI will complete the Authority's legislative programme relating to retained EU laws on statistics. As it follows the approach of the first SI in 2019, and has no practical impact on statistical production, it is not seen as controversial. The UK statistical system will continue to function according to the UK's domestic legal framework for statistics, in particular the SRSA.

Will Laffan and Matthew Ford, Central Policy Secretariat, 24 June 2021