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Dear Emma,

Follow-up regarding OSR's phase one Assessment of ONS's Admin-Based Population Estimates (ABPEs) in England and Wales

Thank you for your letter outlining the progress your teams have made in response to the requirements detailed in [our published phase one Assessment of ONS's ABPEs in England and Wales report](#).

There has been a substantial amount of work and effort that your teams have put into the development of the ABPEs over the last year. It is encouraging to see that our requirements have been used as a foundation to help steer and direct ONS's activities. Annex A and Annex B detail a high-level summary of the progress made against each of the requirements including our judgement around the degree to which the requirement has or has not been met. In our view, most of the requirements are currently in progress or partially met. There are three requirements where limited, or no progress has been made.

ONS's decision to delay transitioning from the current method used to produce the Mid-Year Estimates (MYEs) to ABPEs from summer 2025 to summer 2026 using its published criteria demonstrates a clear commitment to support user confidence ensuring that the new method is trusted, that the ABPEs are of sufficient quality and relevant for users. There has also been a clear push to increase user engagement activities over the last 12 months with more joined-up communication across population and migration statistics.

On the other hand, there is considerably more work to be done to meet the expectations of our technical requirements, including [those recommended by Professor Wiśniowski](#). We have concerns with the lack of progress made against two significant areas. Firstly, ONS's work to investigate sources of error and potential bias in the administrative data sources and quantify associated quality is a crucial part of ensuring that the ABPEs are fit for purpose, and this currently remains a gap.

ONS need to understand and quantify any sources of bias in the Statistical Population Dataset (SPD) – the population stock measure used in the DPM based on administrative data. To date, no quality metrics have been implemented for the Demographic Index (DI) and this forms the backbone of the SPD. We note your commitment to improve your understanding of the quality of the DI by March 2026 as outlined in [the plan for ONS economic statistics](#).

Secondly, whilst some progress has been made with the recent publication of the mid-2024 [ABPE quality and methods guide](#), ONS are yet to develop a comprehensive and detailed production manual, in line with Professor Wiśniowski's recommendation. To ensure the ABPEs are reproducible and of sufficient quality, a fully documented end-to-end process is required.

The [recent UK Government announcement](#) of a 2031 Census in England and Wales provides a significant opportunity for future calibration between the administrative data approach used in the production of ABPEs against the traditional Census. We encourage you to maximise the opportunities that a 2031 Census will bring, including for the development of the ABPEs, ensuring strong collaboration between those involved in the delivery of the 2031 Census and those continuing the administrative data development and research.

My team will continue to liaise with your teams to track progress over the next few months and provide support and advice. As part of this, we will be seeking more assurance from ONS around activities planned to meet the technical recommendations, particularly for those areas highlighted above.

We are also planning a compliance review of the [latest mid-2024 population estimates \(MYEs\) for England and Wales](#). This will cover both MYEs and ABPEs included in the statistical release and will commence in September. The MYEs, as the current official source of population estimates in England and Wales, are [accredited official statistics](#), and therefore this work will be a due diligence check to ensure that the MYEs continue to meet the standards of the Code, as well as to inform our next phase of the ABPE assessment. User views collected as part of this new piece of work will help in providing evidence for our judgements on the outstanding ABPE assessment requirements. My team will be in touch in due course.

I am copying this letter to Mary Gregory, Director of Population Statistics at ONS, Rachel Skentelbery, Deputy Head of Profession for Statistics at ONS.

Yours sincerely,



Ed Humpherson
Director General for OSR

Annex A: Requirements set out in OSR's Assessment of ONS's Admin Based Population Estimates (ABPEs), and progress made by ONS to date

Requirement	High-level summary of action taken by ONS	OSR's high-level evaluation of the evidence
<p>Requirement 1 – Dependencies and developing criteria</p> <p>To maintain public confidence in its population statistics, ONS needs to understand the current dependencies between the ABPEs and MYEs. Together with key stakeholders, such as the Welsh Government, ONS should also develop and publish criteria to support its decision about when the ABPEs will replace the MYEs. The criteria should include statistical quality, operational readiness, planned evaluation and assurance processes and contingency plans, and be usefully applied to the ABPEs and MYEs.</p>	<p>To support its decision making, high-level criteria were developed by ONS with users and published in January 2025. In May, ONS published its evaluation made against its criteria and based on its evidence decided to delay the transition to ABPEs in 2025 to now aim towards the ABPEs becoming headline estimates in summer 2026. Welsh Government provided its views for consideration before the decision was made.</p> <p>ONS intends to publish a quality assessment of the ABPEs compared to the MYEs to inform its assessment against its accuracy criteria.</p> <p>ONS is considering the criteria in respect of both MYEs and ABPEs internally.</p>	<p>Notable progress made to date.</p> <p>The development and publication of ONS's decision making criteria is a step forward in ensuring accountability and supporting user confidence in a transparent way. Publication of quality assessment pending.</p> <p>OSR needs to gather user views to inform view around maintaining public confidence.</p> <p>Requirement partially met.</p>
<p>Requirement 2 – Governance and decision making</p> <p>To ensure that there is sufficient oversight and leadership of the production of ABPEs in a way that is joined up across ONS, and support the ongoing development of ABPEs, ONS should strengthen its governance</p>	<p>The production of ABPEs now sits in the Demography Division, in the Population Statistics Directorate. A monthly Ops and Quality group chaired by the Population Statistics Director is now in place with senior representation from other ONS business areas, such as the Methods and Quality Directorate. An ABPE working group has also been established</p>	<p>Notable progress made to date.</p> <p>ONS's governance and decision-making structure has been strengthened. There is improved clarity around the ABPE decision process.</p>

<p>structure. Work here should include establishing clearly defined decision-making responsibilities to manage any risks associated with funding, capability and prioritisation across the ABPEs production process.</p>	<p>to help co-ordinate work and activities across ONS in a joined-up way across the ABPE production process. This includes escalation and the allocation of owners to manage any risks.</p>	<p>More evidence is required around the management of risks in the context of the FPMS programme, given the recent Government commission for a 2031 Census.</p> <p>Requirement partially met.</p>
<p>Requirement 3 – Plan for expert recommendations</p> <p>To improve and quality assure the methods used in the DPM in a way that supports public confidence in the ABPEs, ONS should publish a response by October 2024 detailing how it plans to address the recommendations and suggestions in Professor Wiśniowski’s report, and, in particular, the essential recommendations (R1-R7). Any recommendations that ONS decides not to take forward should be clearly explained within the response, setting out how it has considered the recommendation.</p>	<p>ONS’s response to Professor Wiśniowski’s recommendations was published as part of ONS’s published action plan in October 2024.</p> <p>Annex B provides more detail of the actions taken in response to R1-R7</p>	<p>Some progress made.</p> <p>OSR provided feedback to ONS in November 2024. The action plan on the technical recommendations was less detailed and lacked clarity on some of the identified areas. ONS committed to publish a more detailed and updated version of its action plan for the technical recommendations. This is pending.</p> <p>Requirement partially met.</p>
<p>Requirement 4 – Capability of the DPM</p> <p>To maximise the capability of the DPM and the quality of the ABPEs, ONS should:</p>	<p>ONS is currently developing a strategy to address how ONS will decide and adopt potential new data sources as part of the DPM, in addition to new methods.</p> <p>ONS has started its sensitivity analysis on the DPM. Parameters have been identified for the</p>	<p>Some progress made.</p> <p>ONS’s plans to develop a strategy outlining the process for incorporating new data sources or new methods is pending.</p>

<ul style="list-style-type: none"> • address the practical implications of incorporating new data sources into the DPM over time and ensure it is appropriately resourced. • continue with its plans to conduct sensitivity analysis to explore how the model's performance is affected by the availability and quality of different data sources. • review and test the capability of the DPM, at suitable intervals, to account for the integration of any novel and volatile/changeable data sources that are included in the model over time. • implement regular fully audited assumption checking and validation to support reproducibility and to help keep the model sustainable. 	<p>testing and shared with the newly established sub-MARP group. ONS intends to publish the results of its analysis in due course.</p> <p>Assumption checking and validation is being carried out in line with internal guidance.</p>	<p>Sensitivity analysis is underway. ONS intends to publish the results of its analysis in a transparent way. OSR is providing advice.</p> <p>Assumption checking and validation is being carried out in line with internal guidance.</p> <p>Requirement in progress.</p>
<p>Requirement 5 – Understanding bias and quality</p> <p>To maximise appropriate use of the ABPEs, and avoid inappropriate use of these statistics, ONS should:</p> <ul style="list-style-type: none"> • better understand the source of any bias in the SPD and introduce 	<p>ONS is developing a structured programme of work to explore quality and understand any bias present within the DI. As part of this work, ONS aims to explore the use of other index data sources.</p> <p>The latest mid-2024 ABPE data table includes a tab detailing data sources used for the population stock (including the SPD) and flow</p>	<p>No progress made to date on parts 1 & 2 of the requirement. ONS work to better understand any bias in the DI and how that translates into the SPD is currently outstanding.</p> <p>Parts 1 & 2 of requirement not met.</p>

<p>documented quality metrics for the Demographic Index (DI) that quantify errors (in particular, linkage errors) and any associated uncertainty that may propagate into the SPD and subsequently the DPM.</p> <ul style="list-style-type: none"> • publish information on the DI, including on how it is created, reviewed, updated and quality-assured. • communicate and present, in a simple way, how the stock data (and other data inputs to the model) change over time, as this may affect the quality of the ABPEs and how it compares to that of other population estimates, such as the MYEs. • ensure its published quality information includes explanation of any strengths and limitations, and reflects the latest data inputs used, for example, updating to the latest version of the SPD. 	<p>data. A link is also included to a quality overview of the data sources used in the mid-2024 ABPE estimates describing any strengths and limitations.</p>	<p>Significant progress made on parts 3 & 4 of the requirement. ONS's latest publication of the mid-2024 ABPEs is transparent and includes detail on the data sources used over time from 2011 – 2024. This includes the versioning of the SPD and an article describing strengths and limitations of each data source used. A gap remains around the detail of the Demographic Index.</p> <p>Parts 3 & 4 of requirement met.</p>
<p>Requirement 6 – Quality assurance</p> <p>To audit the ABPEs production process, understand the impact of data issues and support confidence in its approach, ONS needs to build on the principles set out in its published data quality strategy</p>	<p>ONS has developed and shared with OSR its internal statistical quality management plan. Quality standards are also being developed for consistency.</p> <p>The recently published quality review of data sources used in the mid-2024 ABPEs covers the</p>	<p>Some progress made.</p> <p>The development of the statistical quality management plan is a step forward to improve the auditing and documentation across the production cycle. Require evidence on how the process will be implemented and detail of the end-</p>

<p>and implement an end-to-end process that will:</p> <ul style="list-style-type: none"> • fully audit and document the process and methods applied at each stage to support cross-production knowledge and capability and ensure that mechanisms are in place for various teams to discuss, log and audit any decisions or fixes that take place. • oversee and assess the quality of the data inputs separately and in stages. This should help ONS develop the quality assurance information published alongside the statistics and support users' understanding of the strengths and limitations of the ABPEs. • ensure compliance with Reproducible Analytical Pipelines (RAP) standards. 	<p>strengths and limitations of each of the data inputs for users.</p> <p>ONS is moving to RAP in stages, given methods are still being developed and subject to changes. ONS is planning to take a paper to its Ops Group to decide what parts of the process to RAP and when. Unlikely that the production pipeline will be fully RAP compliant by summer 2026.</p>	<p>to-end process, which remains a gap.</p> <p>We will continue to monitor how ONS take steps to ensure compliance with RAP standards over the next year</p> <p>Requirement in progress.</p>
<p>Requirement 7 - Revisions</p> <p>To help users understand how to use the ABPEs, ONS should implement and publish a revisions policy, and as part of its development:</p> <ul style="list-style-type: none"> • carry out and publish a revisions analysis of the ABPEs to date, including how data input and 	<p>A population and international migration statistics revisions policy has been developed, (approved by the ONS Centre for International Migration and Centre for Ageing and Demography and by the DA's of the UK Census and Population statistics strategic group) and published on the ONS website. With an explanatory article for the publication schedule published on 26 February 2025.</p>	<p>Notable progress made.</p> <p>A revisions policy has been developed with stakeholders and published.</p> <p>User views need to be sought by OSR to confirm their understanding</p>

<p>methods differences may impact the scale of any revisions.</p> <ul style="list-style-type: none"> clarify how the model will be able to take account of any changes in methods over time as part of producing an ABPEs back series. seek feedback and input from users and key stakeholders about its proposals and involve them in its decision-making. 	<p>The publication schedule for admin-based population and migration statistics sets out ONS's revisions schedule, which involves provisional estimates six months after the reference period which are then updated as more data becomes available, the first update being 12 months after the reference period. ONS engaged with users on this.</p>	<p>and confidence in the use of ABPEs.</p> <p>Requirement partially met.</p>
<p>Requirement 8 – Methods assurance</p> <p>To instil confidence in the ABPEs and ensure that the DPM methods are sound and subject to sufficient independent and external challenge, ONS should:</p> <ul style="list-style-type: none"> continue with its plans to create a sub-group of its Methodological Assurance Review Panel (MARP); the independent panel used by ONS to provide advice and assurance on methods used to produce official statistics). create and implement an expert user group. make it easier for users to find relevant MARP papers to support technical user understanding of the methods used in the DPM. 	<p>ONS has created a sub-group of MARP. A technical advisory board consisting of external academics, including our independent expert Professor Wiśniowski to assist ONS in the continued development of the DPM. ONS are in the process of publishing relevant papers on a dedicated webpage.</p> <p>A new cross-government user group has also been established.</p> <p>Methods information relating to the ABPE was included in the 2024 Quality and Methodology Information. The recently published mid-year ABPEs quality and methods guide includes links to published MARP papers for technical users.</p>	<p>Notable progress made.</p> <p>The newly established technical sub-group of MARP and cross-government user group will provide independent challenge on methods development for the DPM. Publication of the papers will enhance the opportunity for public scrutiny. User views need to be sought by OSR to confirm their confidence.</p> <p>Requirement partially met.</p>

<p>Requirement 9 – User engagement</p> <p>To maintain public confidence and help shape the future development of the ABPEs and manage user expectations, ONS should:</p> <ul style="list-style-type: none"> • develop and implement a user engagement strategy specific to the ABPEs. This strategy should detail specific activities and how users will be involved at various stages of the process. The approaches that have been implemented elsewhere in ONS, for example migration statistics, can serve as a good model for this. • use feedback from users to drive developments to the ABPEs whilst also being transparent about where user needs cannot be met, (for example, the availability of breakdowns). • publish regular updates on its plans for the ABPEs, including how the ABPEs form part of the wider population and migration statistics transformation, including timelines and any interdependencies. 	<p>ONS published its engagement plan in October 2024 outlining its plans to keep users informed and engaged on the progress in ABPEs. A further updated engagement plan was published by ONS in May 2025 covering activities planned for 2025/2026.</p> <p>The latest updated engagement plan summarises the outcomes from the LA engagement exercise, including where ONS plan to progress feedback.</p> <p>ONS has introduced published quarterly updates to update users across its plans for population and migration statistics, including any work planned on ABPEs. This includes asking users for feedback.</p>	<p>Notable progress made.</p> <p>ONS has increased its engagement activities over the last 12 months in line with its published engagement plan.</p> <p>The quarterly updates provide a strategic overview of work ongoing in population and migration statistics across ONS in a transparent and open way.</p> <p>User views need to be sought by OSR.</p> <p>Requirement partially met.</p>
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<p>Requirement 10 – Responsiveness to challenge from users</p> <p>To quality-assure the ABPEs at a local level, and strengthen its relationships with users, ONS should be open to scrutiny from key stakeholders, such as local authorities, and users and respond to any feedback appropriately.</p>	<p>ONS is engaging with a selected group of local authorities as part of continuing to develop the ABPE's. The latest updated engagement plan summarises the outcomes from the LA engagement exercise, including where ONS plans to progress feedback. ONS recognises more work is needed to refine the feedback loop to users.</p>	<p>Some progress made.</p> <p>It is encouraging to see active engagement with a selected group of local authorities. There is more to be done to build user confidence in the ABPEs. User views need to be sought by OSR.</p> <p>Requirement in progress.</p>
<p>Requirement 11 – Tailoring communication</p> <p>To build trust in the new approach, ONS needs to improve the way that it communicates quality and methodology information and tailor its communication to the differing technical expertise of users of population statistics, including by:</p> <ul style="list-style-type: none"> • seeking feedback on its current published quality and methodology information with a broad range of users and working together with other stakeholders across the Analysis Function. • helping users navigate to the various publications on the ONS website, for example by implementing a landing page. 	<p>ONS conducted a recent user engagement exercise asking for feedback on published content for population statistics. ONS published the outcomes in June 2025 and outlined its plans to publish a combined quality and methods guide in summer 2025 explaining how the ABPEs are produced, their strengths and limitations, further quality information and a full account of the methods used. The mid-year ABPE quality and methods guide is now published.</p> <p>Through its engagement with selected group of Local Authorities, ONS has sought feedback on its published quality and methodology information.</p>	<p>Notable progress made.</p> <p>The recent user engagement exercise demonstrates ONS's commitment to improve the way it communicates quality and methodology information.</p> <p>User views need to be sought by OSR to confirm their understanding.</p> <p>Requirement in progress.</p>

Annex B: Essential recommendations from independent expert review, as part of OSR's Assessment of ONS's Admin Based Population Estimates (ABPEs), and progress made by ONS to date

Recommendation	High-level summary of action taken by ONS	OSR's high-level evaluation of the evidence
<p>R1. Methods guide.</p> <p>To provide a comprehensive and detailed methods guide that will ensure that the Dynamic Population Model (DPM) is reproducible. The guide should describe in detail:</p> <ul style="list-style-type: none"> ○ data inputs, ○ modelling framework, ○ assumptions regarding population components, ○ computational methods, ○ model testing, and ○ analysis of the outputs. <p>The methods guide should contain versioning similar to the versioning of the Statistical Population Dataset (SPD).</p>	<p>ONS published a high-level and comprehensive quality and methods guide in July 2025. The guide provides a step-by-step explanation of how the ABPEs are produced for users, including the modelling framework, methods for estimating uncertainty, quality assurance and strengths and limitations of the ABPEs. The guide also links to a quality overview of the data sources used in the production of ABPEs.</p> <p>ONS are planning to develop a production manual to go alongside the published code.</p> <p>dpmaccount (previously accountTMB)</p> <p>dpmsplit (previously migsplit)</p> <p>dpmaccpf (previously account)</p> <p>dpmpf (previously accountpf)</p>	<p>Some progress made.</p> <p>A comprehensive and detailed methods guide for users has been published covering most of the areas specified. The assumptions, results of model testing and the production manual remain outstanding and form a crucial part of ensuring reproducibility.</p> <p>Recommendation in progress.</p>
<p>R2. Differentiating bias and accuracy.</p>	<p>Following clarification from OSR, ONS now recognises the important distinction between the model and data,</p>	<p>No progress made.</p>

<p>To provide in the documentation (R1) a clear differentiation between bias and accuracy (or precision) of the data inputs and assess each data input in terms of bias and accuracy. The assessment should inform the DPM. Such a distinction is essential for the DPM to produce reliable (i.e. unbiased and accurate) population estimates.</p>	<p>emphasised in this requirement. ONS has agreed to make this more apparent.</p>	<p>At present there is no documented differentiation between bias and accuracy (or precision) of the data inputs.</p> <p>Recommendation not met.</p>
<p>R3. Quantification of the assumptions</p> <p>To quantify in the documentation (R1) the assumptions in the model, e.g., for precision this could be done by providing coefficients of variation around the mean, rather than stating that one source is more precise than the other. The current version of the DPM relies on informative priors and such quantification is required as an input to the model. It will ensure that the various assumptions can be tested and their impact on ABPEs assessed.</p>	<p>The ONS Methodology and Quality Directorate have told us that they are testing the assumptions in the model.</p> <p>ONS has told us that the ‘current version of the DPM’ refers to the old particle filter method. The new Template Model Builder specification does not suffer this issue.</p>	<p>Some progress made.</p> <p>While the assumption testing work is welcome, it is not completely clear yet how much progress is being made. No evidence has been shared with us to date.</p> <p>Evidence required to ensure joint working across the assumption checking of the model and ONS’s sensitivity analysis work.</p> <p>More evidence required on the Template Model Builder to assess relevance of this recommendation.</p> <p>Recommendation partially met.</p>
<p>R4. Coverage benchmark</p> <p>To test and document the impact of using a coverage benchmark in the DPM</p>	<p>With the recent UKSA Recommendation and likelihood that there will be a Census in 2031, this research is now paused.</p>	<p>No progress made; development of method paused.</p>

<p>(Option 1: correct in the data inputs, Option 2: Correct in the DPM via model parameters). The documentation should contain a description which option has been implemented.</p>	<p>ONS are unable to test in the DPM until a method is developed.</p>	<p>A Census in 2031 will provide a benchmark for the DPM/ABPEs. However, a long-term solution in the potential absence of a Census in the future, remains unknown.</p> <p>Recommendation not met.</p>
<p>R5. Sensitivity analysis</p> <p>To analyse the sensitivity of the ABPEs to a variety of prior distributions assumed for the accuracy (precision) of each of the data inputs. Special attention should be paid to precision of migration (currently internal, cross-border and international migration being jointly modelled as in- and out-flows to and from LAs). Sensitivity analysis should be carried out for the prior distributions for the coverage adjustment parameters. These analyses will inform if the ABPEs are robust to the assumptions about data quality and help identify extreme situations where the DPM may require further research.</p>	<p>ONS has started its sensitivity analysis on the DPM. Parameters have been identified for the testing and shared with the newly established sub-MARP group. ONS intend to publish the results of its analysis in due course.</p>	<p>Some progress made.</p> <p>The sensitivity analysis is underway, alongside work testing hierarchical models implementation and simulation studies. To manage any potential risks to the accuracy and reliability of the model, both strands of work should be documented and aligned. We will continue to follow the outcomes of this work. A knowledge gap remains around how ONS are taking account of the precision of migration data.</p> <p>Recommendation in progress.</p>
<p>R6. Quality assurance process</p> <p>To continue developing a quality assurance processes at each stage of producing ABPEs, i.e. starting with producing data inputs, assessment of their bias and accuracy, quantification in</p>	<p>ONS has now developed and shared with OSR its internal statistical quality management plan.</p>	<p>Linked to OSR Requirement 6.</p> <p>Some progress made.</p> <p>The development of the statistical quality management plan is a step forward to improve the auditing and documentation</p>

<p>terms of data-corrections and/or model parameters, as well as robustness and sensitivity analyses of the DPM and ABPEs. This is to ensure the sustainability of the DPM if data inputs change or new sources are introduced in the future.</p>	<p>The Methodology and Quality Directorate are conducting quality checks. No documentation as yet.</p> <p>ONS are developing quality standards to enable consistent assessment of the quality of data inputs. This forms part of the plans to improve managing statistical quality throughout the ABPE process.</p>	<p>across the production cycle. Require evidence on how the process will be implemented. Documentation across the various stages pending.</p> <p>Recommendation in progress.</p>
<p>R7. Sources of uncertainty</p> <p>To provide a statement that accompanies the DPM-based ABPEs on the potential sources of uncertainty or bias that are unaccounted for and, where possible, an assessment of their importance in a given situation, e.g. when considering estimates for age groups or LAs.</p>	<p>ONS published its mid-2024 ABPE quality and methods guide which includes methods used to estimate uncertainty and information on measures of uncertainty for some input data.</p>	<p>Some progress made.</p> <p>In its published quality and methods guide, ONS are transparent that the measures of uncertainty for international migration at present are only a partial quantification. More research needed on the potential sources of uncertainty and bias in the SPD. Assessment of importance and impact on estimates remains a gap.</p> <p>Recommendation partially met.</p>