

Article

Labour market transformation – update on progress and plans: May 2023

Labour market transformation overview, building on previous engagement on the transformed Labour Force Survey and the labour market administrative data project.

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1. Overview

This is the latest in our series of labour market transformation updates. It follows our <u>January update</u> and notes our progress and achievements since then.

You can find an accompanying summary of our previous updates about transforming the labour force survey.

2. Transformation journey and timeline

In April 2023, we published a blog with an interim update on progress of the Transformed Labour Force Survey (TLFS). Following the successful introduction of "knock to nudge" in November 2022, the new survey has been in the field using all collection methods (online, telephone and knock to nudge) for a full calendar quarter. We are beginning the process of analysing these early results and progressing the development of appropriate methodologies as outlined in our earlier transformation update in January.

Given the scale and complexity of this transformation, and in line with our user feedback, our intention has always been to ensure the highest possible statistical quality – in line with the code of practice – before we move to the transformed survey.

As such, we have made the decision to continue running the Labour Force Survey (LFS), Annual Population Survey (APS) and the TLFS concurrently until the end of 2023. This will allow us to ensure we undertake robust analysis to understand any differences between these surveys, and to be able to provide as much information as possible for our users to interpret.

We are also developing the way in which we collect data in different geographies. This includes changes to our collaborative approach with the Northern Ireland Statistics and Research Agency (NISRA).

While the Office for National Statistics (ONS) collects data for the LFS and APS in Great Britain, NISRA does so for Northern Ireland with its own systems and interviewers. Going forward, the ONS and NISRA will implement the best means of data collection and processing for Great Britain and Northern Ireland, respectively. The ONS and NISRA will, however, maintain consistency in the new TLFS for key UK labour market statistics.

Timeline for the transition to the Transformed Labour Force Survey

Further details about the survey design and early results will be published during summer 2023. The following dates show when the LFS collection period ends and the first time TLFS will be used in our regular outputs:

- October 2023 the start of the last quarter (Oct to Dec) of data collection by the LFS
- March 2024 the first of a series of regular labour market and productivity outputs published using transformed LFS (TLFS) as the primary survey data source

Please note these are not exhaustive timelines for the transformation. Please email any queries to: <u>labour.market.</u> transformation@ons.gov.uk.

Publications using TLFS for the first time

This is a list of both labour market and productivity outputs that will move to using the TLFS. Other regular ONS outputs that use LFS, APS or TLFS data, such as <u>Personal well-being</u> and <u>Families and households in the UK</u>, will also be affected but may not be included.

Publication date: March 2024

Employment in the UK (Nov 2023 to Jan 2024)

Publication date: April 2024

Productivity Final Quarter 4 2023 (Oct to Dec 2023)

Publication date: May 2024

- Flash Q1 2024 Productivity (Jan to Mar 2024)
- Labour Costs (Oct to Dec 2023)
- Labour Market in regions of the UK (Jan to Mar 2024)
- Young people not in education, employment or training (NEET), UK (Jan to Mar 2024)

Publication date: June 2024

Working and workless Households (Jan to Mar 2024)

Files containing microdata and tables downloadable from the Nomis website will continue to be delivered alongside regular labour market publications. The first release of a full quarter of TLFS microdata would be alongside the Employment in the UK release in May 2024.

3. Quality criteria

Quality is one of the three pillars of the <u>Code of Practice for Statistics</u>. Alongside the quality measures outlined in this section, we are also continually monitoring targets in our systems and processes as part of the transformation journey of the Transformed Labour Force Survey (TLFS). These ensure we are meeting the necessary quality to enable us to transition to the TLFS as the primary household survey measure for labour market statistics. The quality measures are also used to target the TLFS design to further improve data quality beyond the transition.

To help evaluate survey performance against the priority areas for improving quality and to enable comparisons against the current Labour Force Survey (LFS), and the associated Annual Population Survey (APS), we have a number of quality criteria targets that have been set for reducing bias, reducing attrition, and increasing response on the TLFS. These have been set based on the performance of the LFS and are intended to aid the decisions around the decommissioning of the LFS and transitioning to the TLFS as the primary source for labour market statistics.

Quality performance criteria

- Reduce bias by reducing variability in response across geographic areas and across other area classifications such as Index of Multiple Deprivation and Output Area Classifications.
- Reduce attrition by retaining respondents from Wave 1 through to Wave 5 and reducing the level of bias across each wave.
- Improve response by increasing overall response rates and achieving a minimum level of response in each local authority and region.

We will also compare the proportional composition of respondent characteristics (age, sex, disability, country of birth, tenure, ethnicity, occupation, industry) with best available estimates of the overall population to identify any under-represented groups and target interventions towards those groups where possible. By designing the collection operation to improve the quality of the data collected through our adaptive and responsive survey design, the TLFS will better enable the production of higher quality, timely, and more granular estimates that meet user needs.

Criteria

Reducing bias

- Response rates for the region with the highest level of response should be less than two times that for the region with the lowest level of response for the same period.
- Response rates for Index of Multiple Deprivation (IMD) category with the highest level of response (usually IMD10), should be less than two times that for the category for the lowest level of response (usually IMD1) for the same period.
- Response rates for the Output Area Classifications (OAC) category with the highest level of response should be less than 1.5 times that of the OAC category with the lowest level of response for the same period.

Reducing attrition

- Attrition between wave 1 and wave 2 must be at a level that indicates sufficient data are available to produce a two-quarter longitudinal dataset.
- Bias criteria should be applicable across each wave.

Improving response

- An overall response rate of 37% for Wave 1 should be achieved by the end of the collection period.
- All regions should have a minimum Wave 1 response rate of 30%.

Discontinuities

- Discontinuities in headline estimates are identified discontinuities in headline estimates are observed when the 95% confidence interval of LFS estimates do not overlap with TLFS equivalent.
- Identified discontinuities in headline estimates are explained and removed where applicable.

Precision

The coefficients of variation of TLFS headline estimates are equal to or smaller than the LFS equivalent.

International standards

 Meets International Labour Organisation (ILO) and European harmonised definitions, including but not limited to: Resolution concerning statistics of the economically active population, employment, unemployment, and underemployment (1982), Measurement of working time (2008) and Resolution concerning statistics on work relationships (2018).

Methodology

- Estimates are representative of the latest available UK population mid-year estimates and projections: enabling published estimates and microdata to be weighted to allow calculation of consistent sub-estimates.
- Imputation: published estimates and microdata are based upon an optimal imputation method for unit and item level.

4. Methodology progress

Transformed Labour Force Survey (TLFS) processing methods will include sample weighting, item imputation and discontinuity analysis before seasonal adjustments are applied. Work has focused on making these methods simple, yet robust, and improving quality assurance processes to support high-quality final estimates and time series. We regularly consult with sample design experts from Southampton University.

Sample weighting

We will continue to calibrate weights by using combinations of sex, age bands, local authority, region, and country. We have been undertaking analysis to determine whether we can safely omit country-of-birth and tenure adjustments introduced to the LFS during the coronavirus (COVID-19) pandemic. Our simplified weighting method has smaller standard errors and coefficients of variation, giving greater precision. We are still analysing the accuracy of estimates to ensure TLFS estimates will be both accurate and precise. On completion of this work, a full report with supporting evidence will be available and our recommendations will be assured internally, and through our external Methodological Assurance Review Panel.

We are working with demographic colleagues in ONS to obtain the necessary population totals for weighting, utilising the latest available figures and updating what is currently used in the LFS. The 2021 Census totals may not be available until later in 2024, and full UK-wide household population totals will not be available until 2025 when Scottish Census results become available. Following the standard approach, we will reweight our survey results periodically as the updated private household population totals become available.

Imputation

Given the low levels of missingness in TLFS (because of improved cleaning at the pre-processing stage) we have decided at this stage to limit item imputation to select variables. We will focus on imputation of productivity variables with the aim of using information on whether respondents were in work or on leave in the reference week to impute hours-worked variables. This method is still in development and will be assured and reported once work is complete.

We have taken the decision not to use roll-forward imputation for wave 2 onwards. Further work will be undertaken to assess any attrition bias and the best imputation methods to address this in the data if present.

Discontinuity

The design and methodological differences between the LFS and TLFS, as well as a move to updated population totals, is likely to bring some discontinuities in the series. With many series, we will apply discontinuity analysis to series in a prioritised order, starting with headline measures. We plan to use an autoregressive integrated moving average (ARIMA) framework to verify discontinuity and a state-space model framework to adjust and back-cast where discontinuities present. A full specification of methods will be assured and published later this year.

5. Next steps

We will continue our regular engagement with users through established channels including our steering group, user groups, and bilateral engagement with various departments.

The <u>user guidance published in November 2022</u> will be updated by July 2023 with the latest details on the design and additional information about questionnaire content, and we will offer walkthrough sessions held shortly afterwards to discuss the updated content.

During the summer, we will also undertake expert peer reviews to assure the appropriate content and quality of the survey, as well as publishing methodology papers with further detail about the survey design.

As the data analysis progresses, our teams will assess the data against statistical definitions and quality criteria, ensuring they are applied correctly. As part of this, mode effects will be analysed, and any discontinuities identified. We plan to share some early insights into the findings of the analysis with our users in summer 2023.

6. Provide feedback

We welcome your feedback on this latest update and our plans, please email labour.market.transformation@ons.gov.uk to tell us what you think.

7. Cite this article

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