

Impact of reweighting on Labour Force Survey key indicators in Wales – December 2024

On 3 December 2024, the Office for National Statistics (ONS) published an article exploring the [Impact of reweighting on Labour Force Survey key indicators: December 2024](#).

This article outlines the latest reweighting exercise that has taken place, which ONS implemented as part of the publication of labour market statistics on 17 December 2024. We explore the indicative impacts on headline labour market estimates for Wales since January to March 2019, and explain how ONS will be making further adjustments to ensure the long-term comparability of these headline series.

The Labour Force Survey (LFS) is a household survey, which is the basis for producing estimates of employment, unemployment, and economic inactivity across the UK. Given that the LFS is a sample, its responses must be weighted to the latest estimates of the UK population to produce representative estimates of the labour market.

LFS reweighting

In February 2024, ONS reweighted the LFS to be consistent with population estimates published in November 2023, along with forward population projections based on the latest estimates at that time. Only periods from July to September 2022 onwards were reweighted at that time, with earlier periods, back to 2011, modelled for headline UK measures by age and sex only.

Since then, new population estimates and projections have been released, based on updated assumptions incorporating higher levels of net migration, along with the results of Scotland's 2022 Census. The population estimates used do not consider the most recent estimates of migration published by the Office for National Statistics (ONS) in November 2024. ONS have now reweighted the LFS using this more recent population information, updating the population weights used for periods from January to March 2019 onwards.

Typically, the LFS would be reweighted every two years to reflect the updated population estimates and projections, which would incorporate any changes to the level and composition of the UK population.

However, the coronavirus (COVID-19) pandemic led to practical challenges for all national statistical institutes in collecting survey information (including a change from face to face interviewing to telephone interviewing and an increase in non-response bias in survey responses). Given this, the weighting approach for the LFS needed to incorporate methodological changes, to reflect these challenges in conducting household surveys and measuring population change through a pandemic. However, these changes to the LFS weighting were not envisaged to be long-term solutions and the longer these changes to the LFS weighting were left in place, the more likely that this would lead to some bias, as

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underlying demographic changes were not being fully reflected in estimates of the rates of employment, unemployment and economic inactivity in the UK labour market.

ONS have also [faced challenges recently around the falling number of responses to the LFS](#), which led to increased sampling variability. This increase in the volatility in the estimates of employment, unemployment, and economic inactivity led to the suspension of the usual suite of LFS-based labour market statistics from October 2023 through to January 2024, while further improvements were implemented to tackle some of these challenges in addition to a review of the LFS weighting approach.

The latest reweighted LFS estimates incorporate information on the size and composition of the UK population, based on 2022 mid-year estimates. For England, Wales and Northern Ireland, they are projected forward using scaling factors from 2021-based national population projections, published in January 2024. This reweighting also revises the weighting methodology used for periods from January to March 2020, to June to August 2022, to align them with the methodology used for later periods. Weighting the LFS against these latest projections brings the benefits of using the most up-to-date data.

Constraints on reweighting

The latest reweighting exercise creates a discontinuity between December 2018 to February 2019 and January to March 2019, where there will be a step change in LFS estimates. This step change will also feed through into other labour market outputs which make use of LFS estimates, principally Workforce Jobs and the public and private sector split in Public Sector Employment.

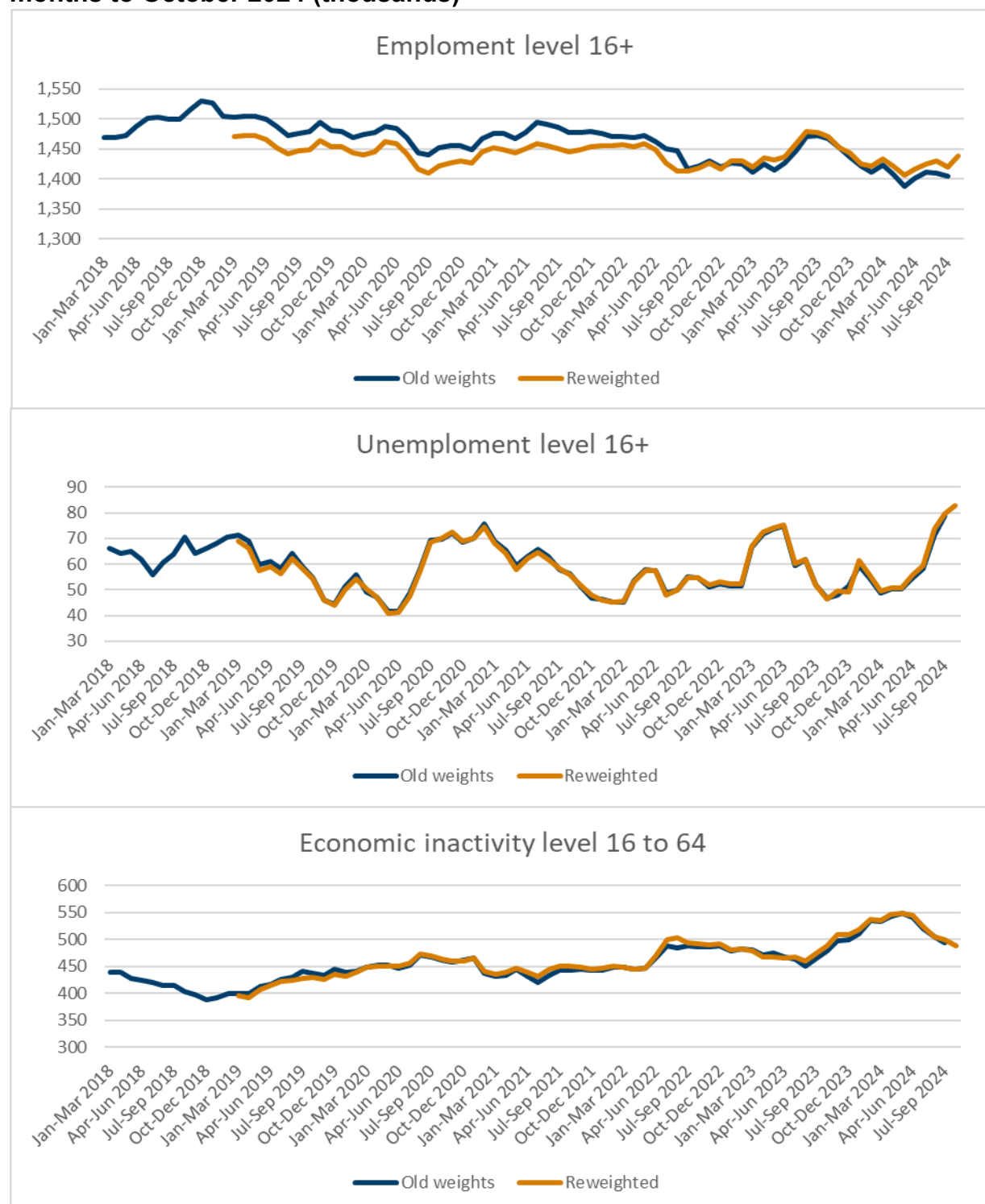
ONS have modelled the seasonally adjusted UK levels of employment, unemployment and economic inactivity by sex and age band back to June to August 2011, in order to ensure that headline UK rates and levels can be accessed without a discontinuity.

Indicative impacts of reweighting on labour market estimates

We would expect there to be changes to the levels of employment, unemployment, and economic inactivity from a reweighting exercise. In this section we look at the indicative impacts of reweighting on these measures.

For example, the population of Wales is estimated to have decreased in mid-2022 by more than originally assumed in the LFS. Demographic changes in the composition of the population will also have an impact. For instance, older people are typically more likely to be economically inactive. If the new population estimates show that there are relatively more older people, this would lead estimates of the level and rate of economic inactivity to be higher.

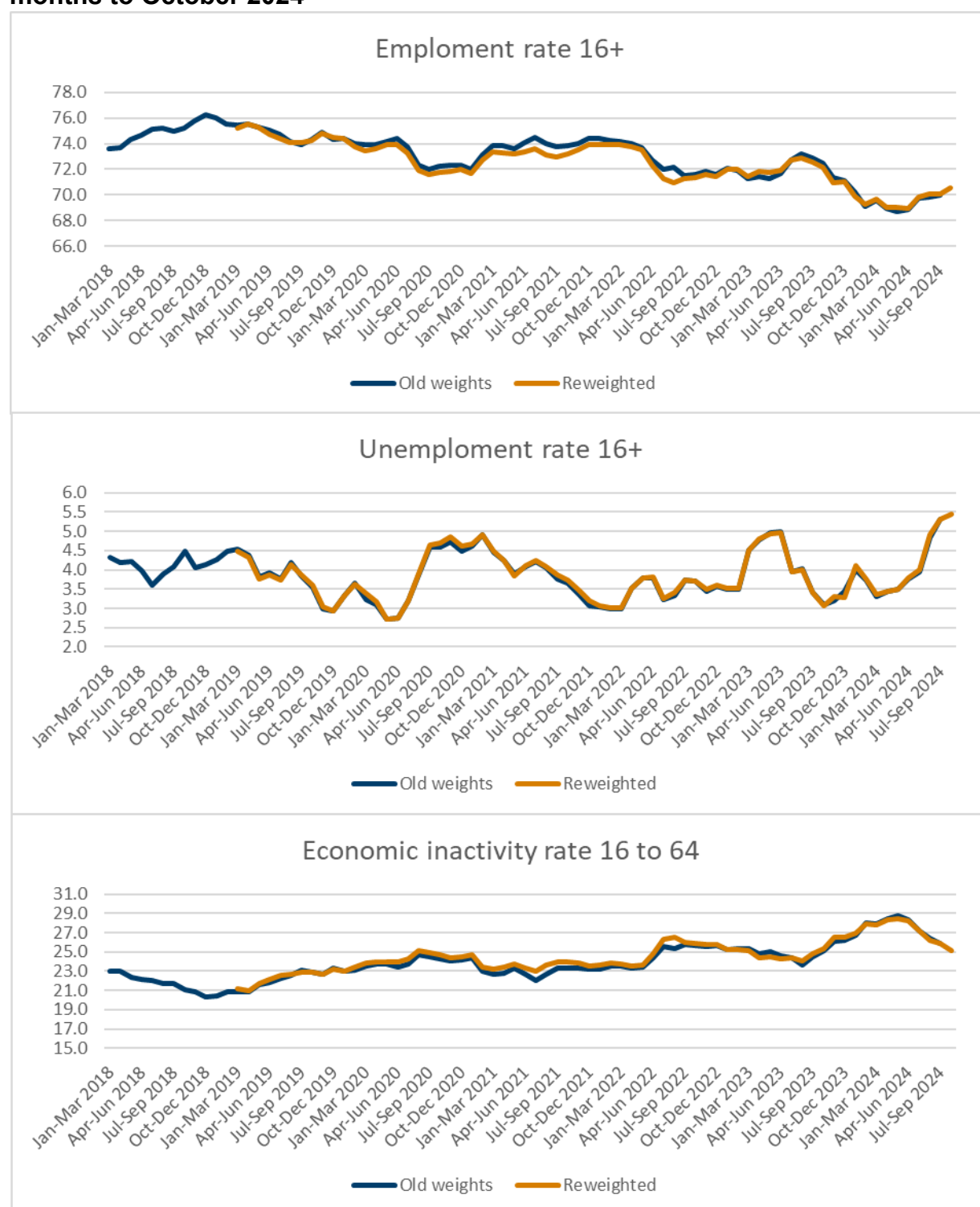
Figure 1: LFS employment, unemployment, and economic inactivity levels in Wales before and after reweighting, three months to March 2018 to the three months to October 2024 (thousands)



Description of Figure 1: Three charts showing the LFS employment, unemployment, and economic inactivity levels in Wales, before and after reweighting. Looking at the reweighted levels from the three months to October 2023 onwards, the levels are higher for employment, relatively unchanged for unemployment, and slightly higher for economic inactivity compared to the old weights. Reweighted data for Wales begins from January to March 2019.

Source: Welsh Government analysis of Labour Force Survey

Figure 2: LFS employment, unemployment, and economic inactivity rates in Wales before and after reweighting, three months to March 2018 to the three months to October 2024



Description of Figure 2: Three charts showing the LFS employment, unemployment, and economic inactivity rates in Wales, before and after reweighting. Looking at the reweighted rates from the three months to October 2023 onwards, the rates are relatively unchanged across all three measures compared to the old weights. Reweighted data for Wales begins from January to March 2019.

Source: Welsh Government analysis of Labour Force Survey

The variation in the size of changes reflects the compositional changes in the population between the old and new population projections. The trends in the levels and rates of employment, unemployment and economic inactivity, compared with the previous weights are largely unchanged by the reweighting, since January to March 2019.

Despite trends remaining similar, the employment rate for those aged 16 to 64 years has been revised down by an average of 0.2 percentage points since January to March 2019. This is reflected in an increase to the rate of economic inactivity (for those aged 16 to 64 years), which has been revised up by an average of 0.2 percentage points over the periods that have been reweighted. Lastly the unemployment rate (for those aged 16 years and over) has remained unchanged on average.

Interpretation of LFS data

This reweighting exercise has improved the representativeness and reduced potential bias in the LFS estimates from the period January to March 2019. However, the ongoing challenges with response rates and levels mean that LFS-based labour market statistics will continue to be badged as [official statistics in development](#) until further review.

In February 2024, we published a Chief statistician's blog discussing [the improvements ONS introduced to labour market statistics for Wales](#), and the approach we are taking to continue providing a robust and timely picture of the Welsh labour market. Even after reweighting, headline estimates from the LFS for Wales remain volatile and provide an uncertain view of the labour market when viewed in isolation. The LFS represents the primary data source, however we continue to recommend that consideration should be given to the trends exhibited by other sources, such as the [Annual Population Survey \(APS\)](#), [HMRC RTI](#), [Workforce Jobs](#), and [claimant count series](#).

We will continue to draw from an array of relevant labour market data sources, providing a timely and comprehensive picture of the Welsh labour market each month.

Longer-term solution

ONS's long-term solution is for the Transformed Labour Force Survey (TLFS) to become the primary source of information on the labour market, with the next update on the progress of the TLFS expected in spring 2025.



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