# Improvements to earnings estimates for small businesses in average weekly earnings

The impact of improvements to the average weekly earnings (AWE) estimates of small businesses.

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# 1 . Main points

- The calculation of average weekly earnings (AWE) includes use of factors, calculated from the Annual Survey of Hours and Earnings (ASHE), to estimate pay in business employing fewer than 20 employees.

- In January 2019, Office for National Statistics (ONS) updated these factors, based on more up to date ASHE data; this article details the impact on AWE estimates.

- At the whole economy level, the revision of factors used to estimate earnings for employees in small businesses has a small impact on AWE estimates; this leaves the trend in earnings at the whole economy level broadly unchanged.

- The largest impact on trends is for periods in 2015 to 2016; the non-seasonally adjusted AWE estimate of total pay reduces by negative £1.10, from £496.5 to £495.4 in April 2016, and during 2015 to 2016 the impact on the percentage change in three-month year-on-year total pay for the whole economy is 0.2% to 0.3%.

- The impact on the percentage change in year-on-year total pay for the whole economy then reduces to less than 0.05% in 2018.

- The impact on regular pay is slightly larger than for total pay, reducing by negative £1.20, from £466.1 to £464.9 in April 2016.

- Revisions are restricted to industries within the private sector; the most impacted industry is wholesale, retailing, hotels and restaurants, with average weekly earnings reduced by approximately £3.

# 2 . Introduction

Average weekly earnings (AWE) is a main economic indicator designed to capture changes in the average earnings of employees in Great Britain. It is largely derived from the Monthly Wages and Salaries Survey, conducted by Office for National Statistics (ONS), which samples between approximately 9,000 and 10,000 businesses per month. Businesses with fewer than 20 employees ("U20 businesses") are excluded from the sample, to control ONS costs and the respondent burden on small businesses. However, to allow us to reflect the earnings of employees in these businesses, pay is estimated using a factor derived from the Annual Survey of Hours and Earnings (ASHE), which does cover small businesses. These estimates are then weighted using employee information from the Inter-Departmental Business Register (IDBR), the main sampling frame for our business surveys.

An update of the U20 business factors used in AWE was carried out in 2015 (with revised factors implemented in 2015) and again in 2016 (with revisions implemented in 2017). The 2015 update was introduced because the factors had not been reviewed since the transition between Standard Industrial Classification 2003: SIC03 and SIC07 on AWE. The 2017 update was driven by a review of the methodology used to calculate the factors driven by recent improvements to the coverage of small businesses on our main sampling frame, the Inter-Departmental Business Register. The factors are now reviewed annually with this update in 2019 reflecting more up to date ASHE data.

This article sets out the impact of updating these factors based on the final 2015, revised (final) 2016 and revised (final) 2017 ASHE data. Due to the calculation of the factors as three-year averages and interpolation between points, this affects the currently implemented U20 factors back to April 2014. In this article we have profiled the impact up to and including September 2018.

# 3 . Whole economy impact

At the whole economy level, the revision of factors has a small impact on estimated earnings. In terms of annual growth, they have a larger impact on the period in mid-2015 with the growth rates for 2018 unchanged (Table 1).

Table 1: Revisions to average weekly earnings (AWE) total pay estimates

|  | Original Estimate[1] | | Revised Estimate[2] | | Difference | |
| --- | --- | --- | --- | --- | --- | --- |
|  | Total Pay (£) | Total Pay Growth (%) | Total Pay (£) | Total Pay Growth (%) | Total Pay (£) | Total Pay Growth (%) |
| April 2014 | 467.9 | 0.7 | 467.9 | 0.7 | 0 | 0 |
| April 2015 | 481.8 | 2.9 | 480.8 | 2.7 | -1 | -0.2 |
| April 2016 | 496.5 | 2.2 | 495.4 | 2.1 | -1.1 | -0.1 |
| April 2017 | 503.3 | 2.1 | 502 | 2.1 | -1.3 | 0 |
| April 2018 | 516.4 | 2.5 | 515 | 2.5 | -1.4 | 0 |

Source: Office for National Statistics - Average Weekly Earnings (AWE)

Notes

1. AWE results based upon under-20 factors calculated from the three years to ASHE 2016 (provisional). Back to table

2. AWE results based upon under-20 factors calculated from the three years to ASHE 2017 (final). Back to table

## Nominal wage estimates

As a result of the revisions, nominal wage estimates decrease slightly by £1.10 in April 2016 before decreasing further by £1.50 in July 2018.

**Figure 1: The original and revised estimates of total pay for the whole economy (nominal)**

**April 2014 to September 2018 (not seasonally adjusted)**

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April 2014 to September 2018 (not seasonally adjusted)

£ per week
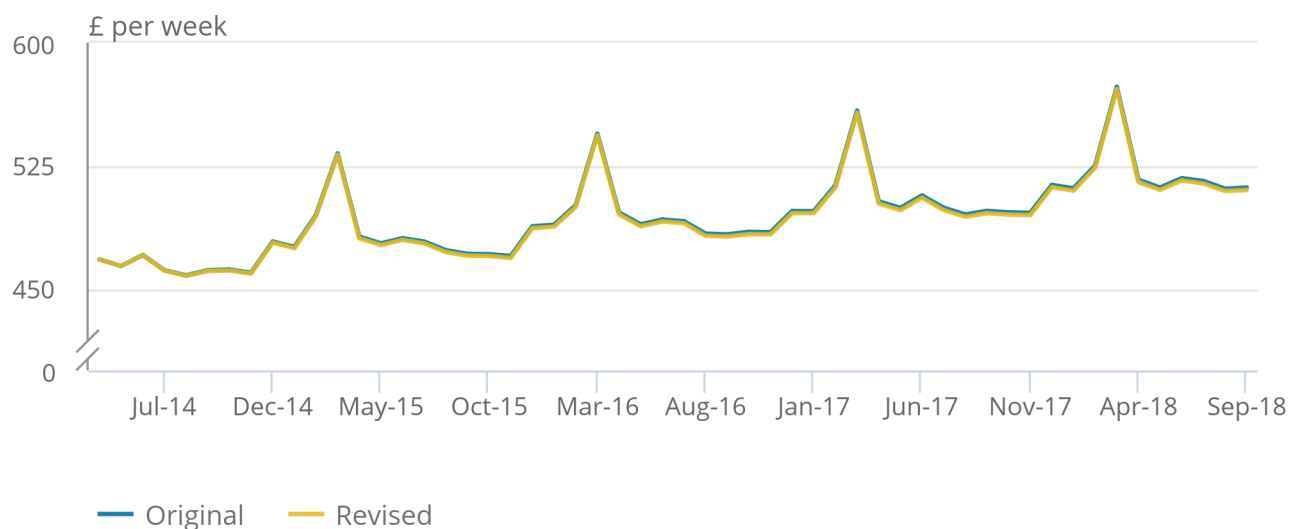


**Source: Office for National Statistics - Average Weekly Earnings (AWE)**

A decomposition of the components of pay shows that the impact is nearly exclusively on regular pay. Bonuses are negligibly affected, except in Quarter 1 (Jan to Mar) 2017 and Quarter 1 2018, where they are revised downwards by approximately £0.30.

## Three-month year-on-year percentage changes

In terms of the headline measure of average weekly earnings (AWE), namely three-month year-on-year growth, the whole economy trend remains largely unchanged in 2017 and 2018 (Figure 2), although these revisions lead to a slight weakening of growth (negative 0.2 percentage points) in 2015.

**Figure 2: The original and revised three-month year-on-year percentage total pay growth for the whole economy (nominal)**

**April 2014 to September 2018 (not seasonally adjusted)**



Figure 2: The original and revised three-month year-on-year percentage total pay growth for the whole economy (nominal)

April 2014 to September 2018 (not seasonally adjusted)
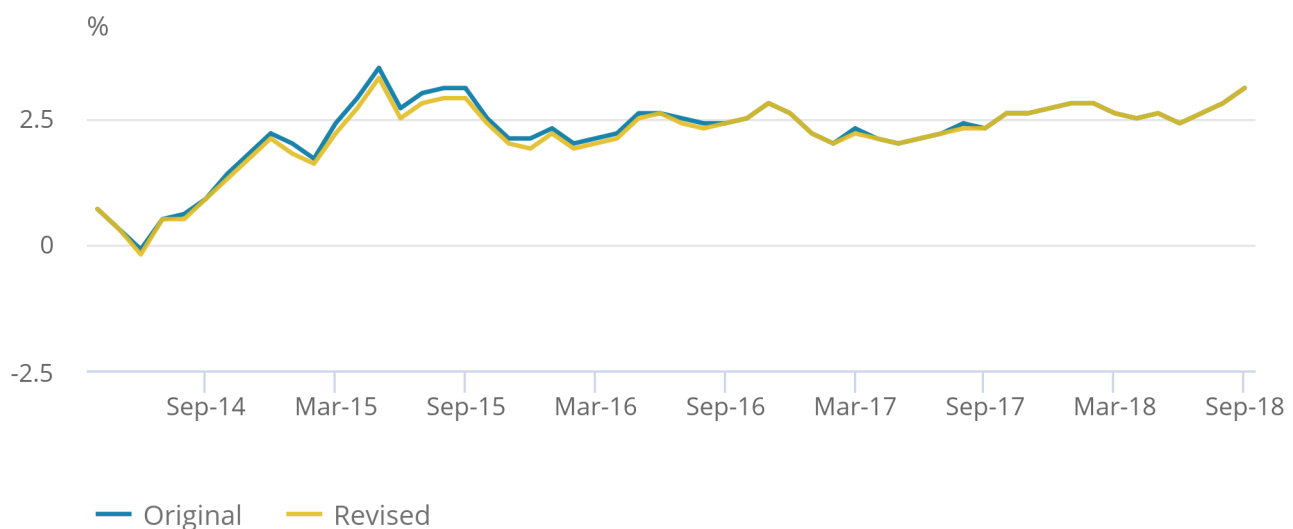
**Source: Office for National Statistics - Average Weekly Earnings (AWE)**

# 4 . Impact by sector

The biggest driver for the change is a revision to the 2016 factor for Standard Industrial Classification (SIC) industry 56 (food and beverage service activities). It had the largest downwards revision of all industries due to the revision brought on by the 2016 data from the Annual Survey of Hours and Earnings becoming final in October 2017.

Additionally, the food and beverage service activities industry has the largest number of employees employed in small businesses. The under-20 factor for this industry consequently has the largest weighting of all factors on the whole economy estimate.

Because of the potential impact of revisions on factors, Office for National Statistics (ONS) has reconsidered the use of provisional ASHE data in calculating these factors, with this and future updates using final ASHE data only.

Overall, most industry sectors see slightly lower earnings levels because of the revised small business factors but the general trends remain the same.

It should be noted that public sector estimates are unaffected, as the package of improvements affects only small private businesses with fewer than 20 employees.

## Nominal wage estimates

In terms of total, regular and bonus pay levels, the wholesaling, retailing, hotels and restaurants industry sector is the most affected downwards (by approximately £3 to £4 for total pay, Figure 3), which impacts growth rates by approximately 0.8% in 2015, as shown in Figure 4. The finance and business services industry sector is affected upwards (Figure 5). Note, for context, that the confidence interval for single month estimates of total pay within wholesale, retailing, hotels and restaurants is approximately 1.7%.

**Figure 3: The original and revised estimates of total pay for wholesaling, retailing, hotels and restaurants (nominal)**

**April 2014 to September 2018 (not seasonally adjusted)**



Figure 3: The original and revised estimates of total pay for wholesaling, retailing, hotels and restaurants (nominal)

April 2014 to September 2018 (not seasonally adjusted)
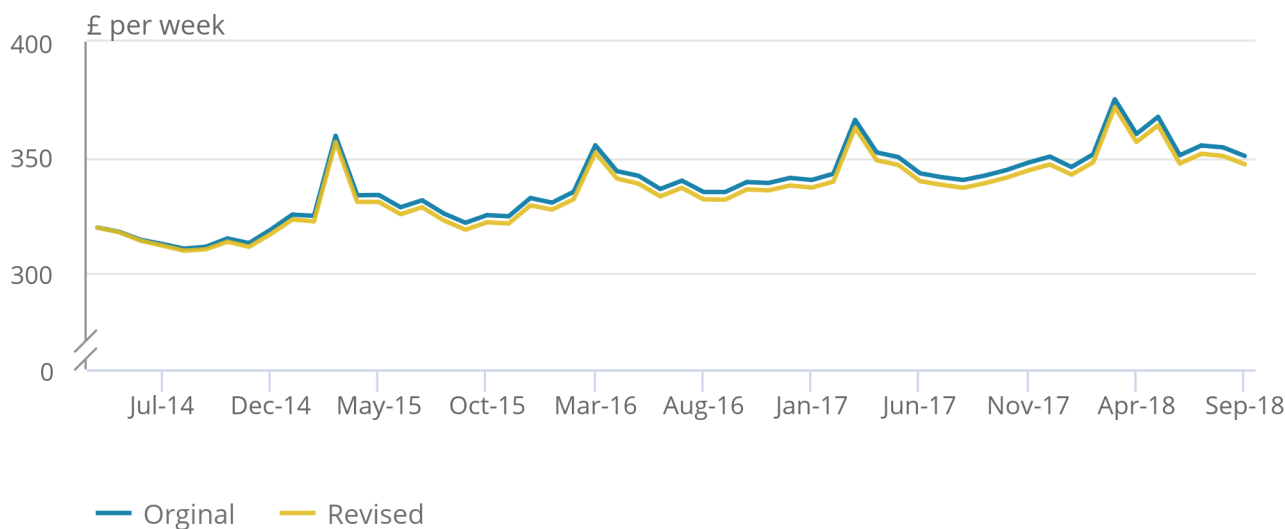
**Source: Office for National Statistics - Average Weekly Earnings (AWE)**

**Figure 4: Revisions to the Three-month year-on-year growth rates (total pay) for wholesaling, retailing, hotels and restaurants (nominal)**

**April 2014 to September 2018 (not seasonally adjusted)**

**Source: Office for National Statistics - Average Weekly Earnings (AWE)**
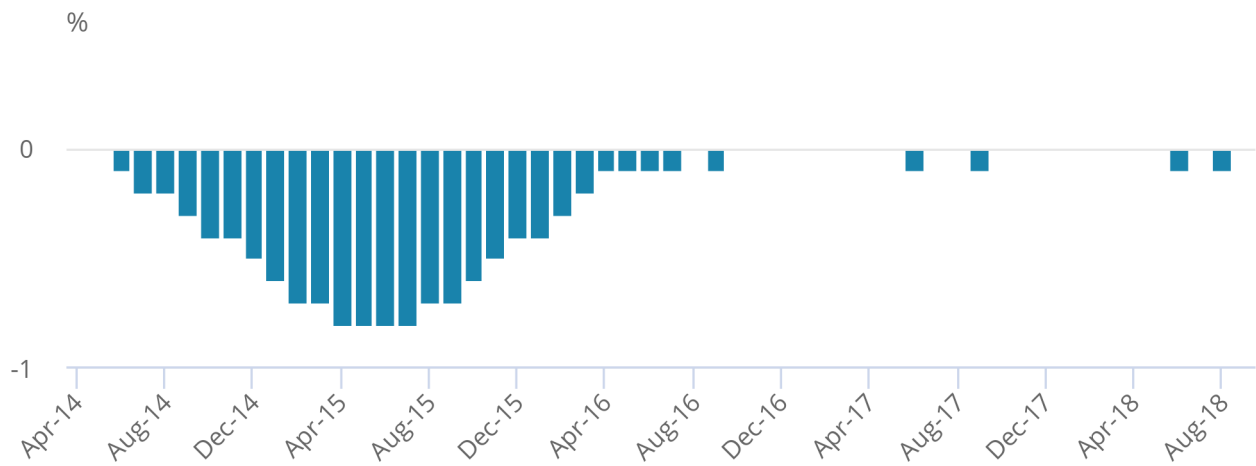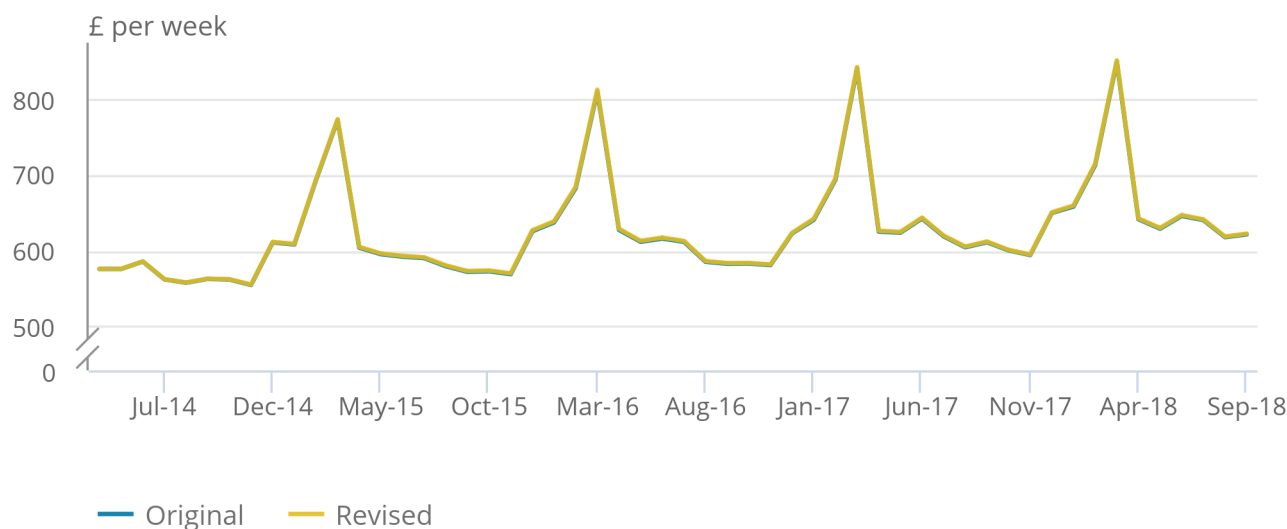
**Figure 5: The original and revised estimates of total pay for finance and business services, (nominal)**

**April 2014 to September 2018 (not seasonally adjusted)**

£ per week



— Original   — Revised

**Source: Office for National Statistics - Average Weekly Earnings (AWE)**

# 5 . Future revisions

Office for National Statistics (ONS) annually profiles the indicative impact that updating under-20 factors would have on headline average weekly earnings (AWE) estimates and will only update factors if the impact is notable. The decision process is through consultation with stakeholders, with an ONS recommendation based upon analysis carried out at whole economy and sector level. Any future revisions will be announced, in advance, in the Labour Market statistical bulletin.