

Description of the modelled changes

The following note contains a description and explanation of how the IFS has examined the impact on receipts of income tax and national insurance, and on spending on benefits and tax credits, if all private sector employers (and as a variant, all employers) increased wages to a “living wage” of £7.85 in London and £7.60 in the rest of the UK, and if there were no change in employment. Approximately 7.3 million people in the UK are paid less than these living wages, of which about 6 million are in the private sector and 1.3 million in the public sector.¹

To calculate the impact, we simulated what would happen if all wages currently below the “living wage” were increased to that level, and examined the mechanical impact on direct tax revenues, and benefit and tax credit payments, under the 2012-13 tax and benefit system (this system was chosen to account for a number of changes to taxes and benefits that will take effect over the next few years). All amounts are in 2010 prices, however.

It is important to note that our analysis only considers the direct, mechanical impact of higher wages on direct taxes and benefits. It does not account for the fact that paying higher wages might reduce the profits of the firms paying them, and hence reduce the revenue from corporation tax or income tax paid on corporate dividends, nor for any impact on consumer spending (which might affect VAT and excise duty revenues). The analysis also does not allow for any changes in employment, the price level or the performance of the economy.

Some of these omitted effects will at least partially offset the higher revenues from income tax, National Insurance, and the lower benefit and tax credit spending. If we assume the overall level of economic activity is unaffected by the increase in wages, government revenue would increase only if the effective tax rates for the workers seeing their wages increase is greater than for firms and individuals seeing a fall in their income.

Data and methodology

This analysis makes use of four quarters of the Labour Force Survey (LFS) covering 2007-08, and the 2007-08 Family Resources Survey (FRS). Use of the two surveys is necessitated because the LFS does not contain enough information on savings, pension income and benefit entitlement, and the FRS does not contain an accurate measure of contractual hourly pay.² Because of limitations of this data it is important to note that our sample does not include people aged over the state pension age, nor their partners.

The LFS records the weekly earnings for each person employed and number of hours worked in a week, but also records the contractual hourly rate for those paid by the hour. One can derive an hourly rate of pay for all workers by dividing weekly earnings by weekly hours, but it has been shown that this leads to a significant overestimate of the number of people with very low

¹ These estimates are based on the LFS, and rely upon people correctly identifying whether they work in the public or private sector.

² For full details of how we use the FRS to impute data missing from the LFS see Chapter 2 of “Taxes, Benefits and the National Minimum Wage” (Brewer, May and Phillips. 2010), available at: http://www.lowpay.gov.uk/lowpay/research/pdf/FromLPC_Document_Feb.pdf

wages (e.g. less than or equal to the National Minimum Wage). Instead, we impute a measure of the contractual hourly rate for all workers using the relationship between the actual contractual hourly rate and a set of explanatory variables for those workers who are paid by the hour.³

Having calculated an actual or imputed contractual hourly rate for all workers, we can calculate by what proportion their wage rate would need to increase in order to meet the “living wage”. We then use two different approaches to calculate the mechanical impact on tax revenues and benefit and tax credit spending;

- we increase their weekly earnings by this proportion. In effect, this takes the imputed hourly rate and weekly earnings as correct, and assumes their stated hours worked per week are incorrect. We exclude those from our analysis where the combination of their weekly earnings and imputed hourly rate would imply working in excess of 80 hours per week.
- we replace their weekly earnings by their stated hours multiplied by the “living wage”. This method effectively takes their imputed hourly rate and hours worked per week as correct, and assumes their stated weekly earnings are incorrect.

The two different methods give different results, but it is important to use both as there is no clear reason to prefer one set of assumptions over the other. In the figures that follow, the smaller numbers relate to the first method, and the larger numbers to the second method.

Results

An increase in wages for everyone in the private sector to the level of the “living wage” would lead to an increase in gross earnings of between £11.4 billion and £12.0 billion, of which about £4.5 to £4.9 billion would accrue to the Government through higher income tax and employee national insurance payments and lower spending on benefits and tax credits. Employers would also pay about £1.4 to £1.5 billion more in Employers’ National Insurance. In total, the Treasury would gain between £5.9 billion to £6.3 billion. The implied effective tax rate on the additional earnings is 46%.

If public sector organisations were also to increase their wages to the level of the living wage, the total gain to the Treasury would be between £6.8 billion to £7.3 billion (i.e. about £0.9 billion more than if it applies only to the private sector)⁴. But there would also be additional direct costs to the public sector of about £3.2 to £3.4 billion in the form of higher wage bills and higher employer NI contributions.

³ See Chapter 2, Brewer et al (2010), for more details. This approach is based upon that in “The Measurement of Low Pay in the UK Labour Force Survey” (Skinner, Studdard, Beissel-Durrant and Jenkins. 2002), Oxford Review of Economics and Statistics, No. 64.

⁴ This does not mean that if it were only applied in the Public sector the resulting revenue would be £500 million due to interactions with the benefit and tax credit system in families where one partner works in the private sector and the other works in the public sector.