

## Impact case study (REF3)

<b>Institution:</b> University of Bath		
<b>Unit of Assessment:</b> C16 Economics & Econometrics		
<b>Title of case study:</b> Improving our understanding of the National Minimum Wage to benefit low-paid workers in the UK and Ireland		
<b>Period when the underpinning research was undertaken:</b> 2011 - 2020		
<b>Details of staff conducting the underpinning research from the submitting unit:</b>		
<b>Name(s):</b>	<b>Role(s) (e.g. job title):</b>	<b>Period(s) employed by submitting HEI:</b>
Kerry Papps	Senior Lecturer, previously Lecturer	September 2011 - present
<b>Period when the claimed impact occurred:</b> 2014 - December 2020		
<b>Is this case study continued from a case study submitted in 2014?</b> N		
<b>1. Summary of the impact</b>		
<p>Research by Dr Kerry Papps and colleagues at the University of Bath, funded by the Low Pay Commission, has looked at the effects the UK National Minimum Wage (NMW) has had on low-paid workers, beyond its influence on their basic hourly pay. Taking an interdisciplinary approach, this has examined whether the minimum wage affected rates of overtime or shift pay, annual leave and pension provisions, and found no evidence of any significant effects. It has also explored the effects the minimum wage has on job turnover and found that it reduces both the rate of inflow and outflow from jobs.</p> <p>These findings informed the Low Pay Commission's recommendations to the UK Government to increase the NMW in 2014, 2015 and 2016, which were accepted in full. In 2014 alone, this raised the pay of around 1,000,000 workers by as much as GBP355 per annum. The research was also cited by the Irish Low Pay Commission in 2016, when making a recommendation that led to the first increase in the minimum wage in that country since 2007.</p>		
<b>2. Underpinning research</b>		
<p>Minimum wages have long been used as a tool to ensure that workers receive a fair rate of pay for their labour services. The primary policy concern has always been that they might put people out of work. Since the early 1990s, economists have produced a lot of evidence suggesting that these fears are unfounded. However, we know a lot less about the other effects the minimum wage has on the labour market. If employment does not change in response to the minimum wage, what does? Prices, profits, perquisites or productivity? In a series of papers, Papps's research at University of Bath has looked at the last two of these.</p> <p>In a 2012 <i>ILR Review</i> article, Papps examined how the minimum wage affected the probability of workers leaving employment in Turkey, by comparing this to the effects of payroll tax changes that were implemented at the same time [Ref 1]. Papps measured the influence of the two policies on a low-wage worker by calculating the amount by which his/her wage would have to be increased when the minimum wage or payroll tax rates were raised. The employment outcomes of these workers were then compared with workers who earned slightly too much to be affected by either policy. The minimum wage was found to have no statistically significant effect on employment, whereas an equal-sized increase in payroll taxes did reduce employment. These results suggested that by increasing workers' pay, minimum wages act to raise productivity, possibly by reducing quit rates, although it was not possible to test this directly.</p> <p>Papps, along with Paul Gregg of the Department of Social and Policy Sciences at University of Bath, was commissioned by the Low Pay Commission in 2013 to examine how the National</p>		

Minimum Wage (NMW) affected aspects of workers' compensation packages other than their basic hourly wage [Ref 2]. Policy makers were concerned that employers were attempting to circumvent the minimum wage by reducing the fringe benefits they provided their workers, but no previous quantitative research had investigated this issue. Papps and Gregg applied the methodology from Papps's 2012 research [Ref 1] to data from the Annual Survey of Hours and Earnings (ASHE) and Labour Force Survey (LFS). They examined whether workers whose wages were pushed up by the NMW experienced reductions in the amount of overtime pay or shift pay received, the amount of annual leave provided, or the likelihood of having a pension or being on a permanent contract. No statistically significant evidence was found that the minimum wage affected any of these factors [Ref 2].

Papps was subsequently commissioned to conduct further research into the effects of the NMW on workers [Ref 3], this time with Matt Dickson of the Department of Social and Policy Sciences and Institute for Policy Research at University of Bath. This investigated what effects the minimum wage has on workers' probabilities of exiting and entering jobs. International research had found evidence that minimum wages reduce job turnover, although there was no agreement on why this was the case. Papps and Dickson used data from ASHE, LFS and Understanding Society and again applied Papps's (2012) methodology. They found that the minimum wage significantly raised how long workers stayed in their jobs and that this was driven mostly by workers being less likely to quit their job. Hence, minimum wages improve productivity in the labour market by reducing turnover and the costs associated with hiring new staff. Concurrently, unemployed workers were found to be less likely to enter employment when the NMW was raised [Ref 3].

Papps undertook additional research for the Low Pay Commission in 2019, investigating the effectiveness of the apprentice rate of the NMW [Ref 4]. Apprentices are subject to a lower rate of the minimum wage, to account for the fact that they undertake formal training as part of their jobs. The research examined the extent to which employers attempt to reduce their labour costs further, either by failing to comply with the minimum wage and paying less than the apprentice rate or by reducing the amount of training they provide their apprentices. It found a relatively high level of non-compliance, which was concentrated among employers of apprentices aged under 21 who were in the second year of their apprenticeships.

### 3. References to the research

1. Papps, KL 2012, 'The effects of social security taxes and minimum wages on employment: Evidence from Turkey', *Industrial and Labor Relations Review*, vol. 65, no. 3, pp. 686-707. <https://doi.org/10.1177%2F001979391206500309>
  - Based on a report funded by the World Bank.
2. Papps, KL & Gregg, P 2014, *Beyond the wage: Changes in employment and compensation patterns in response to the national minimum wage*. Low Pay Commission. [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/289426/Gregg\\_PappsBATH\\_Beyond\\_the\\_wage\\_FINAL.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/289426/Gregg_PappsBATH_Beyond_the_wage_FINAL.pdf)
  - Findings were presented to the Low Pay Commissioners in October 2013.
  - Funded by the Low Pay Commission (Papps and Gregg, 'Beyond the wage: Changes in employment and compensation patterns in response to the national minimum wage', March-October 2013, GBP47,095).
3. Dickson, M & Papps, KL 2016, *How the national minimum wage affects flows in and out of employment: An investigation using worker-level data*. Low Pay Commission. [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/520389/Dickson\\_and\\_Papps\\_Final\\_Research\\_Report\\_February\\_2016.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/520389/Dickson_and_Papps_Final_Research_Report_February_2016.pdf)

- Findings were presented to the Low Pay Commissioners in October 2015.
- Funded by the Low Pay Commission (Papps and Dickson, 'How the national minimum wage affects flows in and out of employment: An investigation using worker-level data', March-December 2015, GBP47,976).

4. Papps, KL 2020 'How the minimum wage affects training among apprentices' IZA Discussion Paper Series, no. 13499, IZA Institute for the Study of Labor, pp. 1-25.

<https://www.iza.org/publications/dp/13499/how-the-minimum-wage-affects-training-among-apprentices>

- Findings were presented to the Low Pay Commissioners in June and September 2019.

#### 4. Details of the impact

Research at University of Bath by Papps, in collaboration with Bath researchers Gregg and Dickson, has influenced the UK and Irish Low Pay Commissions' recommendations regarding the minimum wage. This has in turn led to increases in the minimum wages in the UK (2014, 2015, 2016) and Ireland (2016) benefitting over 1,000,000 people.

Papps and Gregg's (2014) research influenced the Low Pay Commission's recommendations to Government in their 2014 Annual Report [Source a]. Their findings that the NMW has no adverse effects on workers' employment packages indicated that there was no reason for caution in raising the minimum wage. These findings were communicated to the Low Pay Commission's secretariat and other civil servants during a workshop presentation in September 2013 and to the Commissioners themselves during a face-to-face presentation in October 2013. In response, in their annual report, the Commission recommended that the adult hourly rate of the NMW should increase from GBP6.31 to GBP6.50, with the minimum wage rates for apprentices and under-21-year-olds increased by similar amounts. Papps and Gregg's research was cited five times throughout the annual report and their full report was published on the Commission's website, alongside the annual report. The Government accepted the Commission's recommendations in full on the day the annual report was released, 12 March 2014, and on 1 October 2014, the new rates of the minimum wage went into effect [Source b]. Adjusted for inflation, the GBP0.19 increase in the adult rate represented the largest such increase since 2008 and the Government estimated that more than 1,000,000 people would experience a pay increase as a result, with their annual earnings rising by as much as GBP355 [Source c].

The Low Pay Commission heavily cited Papps and Gregg's 2014 research once again in their 2015 Annual Report, which recommended further increases in the NMW, including a GBP0.20 increase in the adult rate, to GBP6.70 [Source d]. These recommendations were accepted in full by the Government, except that the Government decided to increase the minimum wage by even more than recommended [Source e].

Papps and Gregg's (2014) research was also cited by the Irish Low Pay Commission in their inaugural report in 2015 [Source f]. In response to this report, the Irish Government decided to increase the top rate of that country's minimum wage by EUR0.50 per hour in January 2016, from EUR8.65 to EUR9.15 an hour. All other minimum wage rates increased by the same amount. These represented the first increases in the minimum wage since 2007 [Source g]. According to the Central Statistics Office, approximately 73,000 people, representing 4.7% of the Irish workforce, were being paid the adult minimum wage of EUR8.65 in June 2014, suggesting that at least this many workers were affected by the 2016 increase.

Dickson and Papps's (2016) findings were that the minimum wage reduces quit rates among those who are affected by it, which would reduce employers' costs and potentially offset some of the cost increases associated with the minimum wage. This research influenced the

Commission's 2016 Annual Report, which once again recommended that the various NMW rates be increased, with the adult rate rising from GBP6.70 to GBP6.95 [Source h]. The work by Dickson and Papps, as well as the earlier work by Gregg and Papps, was heavily cited in this report [Source h]. In response to the Low Pay Commission's 2016 Report, the Government accepted the Commission's recommendations in full and the NMW increased on 1 October 2016 [Source i].

Papps's research on the effects of the apprentice minimum wage rate in 2019 was the only quantitative evidence the Commission considered as part of its review of the apprentice rate [Source j]. Papps presented his findings to the Commissioners in June and September 2019, which informed the Commission's decision in December 2019 to recommend a relatively large increase in the apprentice rate of 6.4%, from GBP3.90 to GBP4.15 that took effect on 1 April 2020. The insights the research had regarding the extent and pattern of non-compliance also led to stronger enforcement of the minimum wage by HMRC among employers of apprentices [Source j].

## 5. Sources to corroborate the impact

[a] 'National Minimum Wage: Low Pay Commission Report 2014', Low Pay Commission, 12 March 2014.

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/288847/The\\_National\\_Minimum\\_Wage\\_LPC\\_Report\\_2014.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/288847/The_National_Minimum_Wage_LPC_Report_2014.pdf)

- The research by Gregg and Papps is cited on pages 54, 73, 250 and 256.

[b] 'National Minimum Wage – Government Response to the 2014 Low Pay Commission Report', Department for Business, Innovation & Skills, 12 March 2014.

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/288978/bis-14-666-national-minimum-wage-government-response-to-low-pay-commission-report-2014.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/288978/bis-14-666-national-minimum-wage-government-response-to-low-pay-commission-report-2014.pdf)

[c] 'One million set to benefit from National Minimum Wage rise to GBP6.50', Department for Business, Innovation & Skills press release, 12 March 2014.

<https://www.gov.uk/government/news/one-million-set-to-benefit-from-national-minimum-wage-rise-to-650>

[d] 'National Minimum Wage: Low Pay Commission Report 2015', Low Pay Commission, 17 March 2015.

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/520052/National\\_Minimum\\_Wage\\_LPC\\_report\\_2015.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/520052/National_Minimum_Wage_LPC_report_2015.pdf)

- The research by Gregg and Papps is cited on pages 72, 94, 95, 97 and 288.

[e] 'New National Minimum Wage rates announced', Department for Business, Innovation & Skills press release, 17 March 2015.

<https://www.gov.uk/government/news/new-national-minimum-wage-rates-announced>

[f] '2015 Low Pay Commission: Recommendations for the National Minimum Wage', Irish Low Pay Commission, July 2015.

<http://www.lowpaycommission.ie/publications/national-minimum-wage-/recommendations-of-the-low-pay-commission-for-the-national-minimum-wage-2015-.pdf>

- The research by Gregg and Papps is cited on page 20.

[g] 'New National Minimum Wage from 1 January 2016', Workplace Relations Commission press release, December 2015.

[https://www.workplacerelements.ie/en/news-media/workplace\\_relations\\_notices/new\\_nmw.html](https://www.workplacerelements.ie/en/news-media/workplace_relations_notices/new_nmw.html)

[h] 'National Minimum Wage: Low Pay Commission Report Spring 2016', Low Pay Commission, 14 March 2016.

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/571631/LPC\\_spring\\_report\\_2016.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/571631/LPC_spring_report_2016.pdf)

- The research by Dickson and Papps is cited on pages 34, 153, 164, 175, 181, 307 and 311.
- The research by Gregg and Papps is cited on pages 20, 34, 35, 36 and 37.

[i] 'National Minimum Wage: Government Response to the Low Pay Commission's Spring 2016 Report', Department for Business, Innovation & Skills, 14 March 2016.

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/507385/bis-16-169-nmw-lpc-spring-2016-government-response.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/507385/bis-16-169-nmw-lpc-spring-2016-government-response.pdf)

[j] Letter from Tim Butcher, Chief Economist and Deputy Secretary, Low Pay Commission, 12 March 2021.