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# 1

## Low Pay and the Minimum Wage in Ireland

*Donal O'Neill*

### 1 Introduction

Prior to April 2000, minimum wages in Ireland were set by Joint Labour Committees (JLC). However, the wages specified in these agreements were often quite low and covered less than a quarter of the workforce. Furthermore the level of enforcement was quite weak, such that the specified wages had very little bite. In April 2000 the Irish government introduced a national minimum wage of IR£4.40<sup>1</sup> an hour, which would apply to most adult workers. When the rate was first suggested in 1997 it was envisioned that the full-time rate would correspond to approximately 56 per cent of median full-time adult pay. To put this in context, Table 1.1 summarises the relative bite of the minimum wage for a selection of other countries at this time. It is clear from this that the proposed Irish rate would have placed Ireland towards the top of this scale. As it turns out, when it was eventually introduced on the 1 April 2000, the relative bite of the minimum wage had fallen somewhat to about 44 per cent of the average wage.

The system used to implement the minimum wage laws also varies across countries. In countries such as France, Netherlands, Portugal, Spain and the United States the government sets a statutory minimum wage. In other countries such as Belgium, Denmark and Greece the minimum wage is set as part of National Collective Bargains, while in countries such as Austria, Germany and Italy sectoral minimum wages are set as part of collective agreements. The system adopted in Ireland involves a statutory rate, with the Minister for Enterprise, Trade and Employment having the discretion to decide on changes in the level specified for the minimum wage. There is no procedure or agreed policy with respect to indexation of that level as prices or earnings increase. The system

*Table 1.1* International comparison of minimum wage rates

Country	Adult minimum wage relative to median full-time wages (1997)
Australia	54
Belgium	50
Canada	40
France	57
Ireland	56
Japan	31
Netherlands	49
Spain	32
United States	38
United Kingdom	44

*Note:* Data for all countries except Ireland are taken from Metcalf (1999).

adopted contains some age variation, with a separate rate, corresponding to 70 per cent of the adult rate, for employees under 18 years of age. Employers can also pay sub minimum rates for employees over 18 provided these individuals are either in structured training or in their first two years of employment. However, there is no scope for regional or sectoral variation in these rates. Since its introduction the adult rate was increased to IRE4.70 in July 2001 and is set to increase further to IRE5.00 on 1 October 2002. This chapter characterises those affected by the minimum wage legislation in Ireland and analyses the impact of the legislation thus far.

## 2 The characteristics of low-wage workers and firms

To examine the characteristics of the workers and firms most likely to be affected by the minimum wage we conducted a nationally representative survey of establishments to obtain detailed information on the employment and pay structure of these enterprises. In the first instance an owner or director of the firm was contacted in relation to the survey, which they in turn could forward to someone with direct responsibility for hiring in the establishment. All questionnaires were completed on a personally administered basis that involved the interviewer visiting each respondent and completing the survey on the premises. The first surveys took place in the last quarter of 1998, approximately 12–14 months prior to the introduction of the legislation. A total sample of 2330

Table 1.2 Classification of low paid by pay range, private sector employees

Pay range	% of the population	% of all earning less than £4.50
£4.00–£4.50	12.6	60.0
£3.00–£3.99	6.9	32.8
Less than £3.00 an hour	1.5	7.2

Table 1.3 Classification of private sector employees by gender

Gender	% of all employees	% falling below £4.50	% of all those below £4.50
Male	60.1	15.0	43.0
Female	39.9	30.4	57.0

enterprises was selected and 1064 surveys were successfully returned. In this section we use these responses to characterise both the workers and firms who were most likely to be affected by the adult minimum wage rate.<sup>2</sup> In particular, we look at the number of employees in the survey being paid IR£4.50 or less.

The first finding that emerges from the survey is that at the time the minimum wage was proposed 21 per cent of all private sector employees in the survey were earning £4.50 or less. Table 1.2 provides a more detailed breakdown of the incidence of low pay in the establishment survey. Here we classify the low paid into three wage ranges: those earning IR£4.00–IR£4.50, IR£3.00–IR£3.99 and less than IR£3.00 an hour. The first column indicates that approximately 13 per cent of private sector employees were being paid between IR£4.00 and IR£4.50 an hour, approximately 7 per cent received an hourly wage between IR£3.00 and IR£3.99, while only 1.5 per cent of private sector employees received an hourly wage of less than IR£3.00. The second column shows the composition of low paid by wage category. We see that 60 per cent of those earning less than IR£4.50 an hour had an hourly wage between IR£4.00 and IR£4.50. Almost one-third earned between IR£3.00 and IR£4.00 an hour, while only 7 per cent of low-paid workers earned less than IR£3.00 an hour.

Table 1.3 shows the risk and incidence of low pay by gender. From this we see that women faced a greater risk of being paid less than IR£4.50 than men are. The risk of being low paid was almost twice as high for women than men. The third column of the table also shows that women accounted for a disproportionately large percentage of the low paid.

*Table 1.4* Age classification of private sector employees

Age group	% of all employees	% falling below £4.50	% of all those below £4.50
Aged 18 or less	4.8	80.4	18.3
Aged 19–25	29.1	34.2	47.3
Aged 26 or more	66.1	11.0	34.4

*Table 1.5* Low pay by part-time/full-time status, private sector

Employment status	% of those in population of employees	% falling below £4.50	% of all those below £4.50
Part-time	14.6	64.4	45.0
Full-time	85.4	13.7	55.0

While female employees accounted for approximately 40 per cent of all private sector employees, they constituted 57 per cent of those paid less than IR£4.50 an hour.

Table 1.4 classifies workers into three age groups: those aged 18 or under, those aged between 18 and 25 and those aged 26 or more. It shows that the risk of being low paid is significantly higher for younger workers. Over 80 per cent of those workers aged 18 or less received an hourly wage rate of IR£4.50 or less. This compares to 11 per cent of workers aged 26 or more. The final column shows that while younger workers were most at risk of being low paid they accounted for less than 20 per cent of all those who were low paid. Forty-seven per cent of those paid less than IR£4.50 an hour were aged between 19 and 25 while 34 per cent were 26 or older.

We have also looked at the breakdown of the sample by part-time versus full-time status where full-time is defined as working 30 hours or more a week. The results are presented in Table 1.5. Part-time workers faced a much greater risk of low pay than did those who worked full-time. Almost 65 per cent of part-time workers covered by the survey were working for less than IR£4.50 an hour, compared to only 13.7 per cent of full-time workers. However, the greater risk of being low paid does not mean that part-time workers constituted the majority of low-paid workers, since they accounted for less than 15 per cent of the total population. The results in the final column show that the majority of those being paid less than IR£4.50 an hour were full-time workers.

The survey of establishments not only provides information on the individuals affected by the minimum wage but is also a valuable source

*Table 1.6* Occupational classification of private sector employees

<b>Occupation</b>	<b>% of all employees</b>	<b>% below £4.50</b>	<b>% of all those below £4.50</b>
Managers/Proprietors	15.7	4.5	3.3
Engineering/Science/ Computer/Other Professionals	6.2	0.6	0.1
Engineering/Science and Computer Technicians	3.8	1.1	0.2
Clerical/Secretarial	13.7	7.5	4.9
Skilled Maintenance/Skilled Production	10.1	14.6	7.0
Production Operatives	17.1	20.8	16.9
Transport and Communications	5.9	8.2	2.3
Sales	13.3	49.7	31.4
Personal Services	18.1	63.6	24.4
Labourers	6.1	32.5	9.4

of information concerning the characteristics of the occupations and establishments in which low-paid workers were found. Table 1.6 provides a breakdown of the low paid by occupational status. The first column shows that the distribution of employees across the occupations chosen is relatively uniform, the largest being production operatives who accounted for 17 per cent of all workers and the smallest being Science and Computer Technicians which accounted for 4 per cent of employees. However, much more significant differences emerge when we analyse the occupational classification of the low paid. The second column suggests that there were three occupations that were particularly vulnerable to low pay. These were Sales jobs, Personal Services and Labourers. In each of these occupations at least one-third of workers were being paid less than IR£4.50 an hour, with the figure being as high as two-thirds for those in the personal services. The first two of these occupations accounted for 56 per cent of all those who are low paid despite accounting for only 21 per cent of the total population. The other category which contributes significantly to the low paid are production operatives who accounted for 17 per cent of the low paid but they also account for 17 per cent of total employees.

Table 1.7 turns from an occupational breakdown of employees to a breakdown of low-paid workers by industry. Several important features emerge from this analysis. There were three sectors within which workers faced a relatively high probability of being low paid. Thirty-three per cent of all workers in the textiles and apparel industries were being paid

*Table 1.7* Industry breakdown of private sector employees

Sector	% of all employees	% below £4.50	% of all those below £4.50
Building and Construction	7.7	9.1	3.3
Manufacture of Textiles and Apparel	2.0	33.2	3.3
Other Manufacturing and Production	25.8	9.7	11.8
Retail	17.0	38.8	31.3
Wholesale	5.1	22.5	5.5
Prop./Rent/Business Services	16.4	10.7	8.3
Hotels/Restaurants/Bars	11.1	49.3	26.0
Personal and Other Services	14.9	14.9	10.5

less than IR£4.50 an hour, almost 39 per cent of employees in the Retail sector received less than IR£4.50 an hour and almost 50 per cent of workers in the Hotel, Restaurant and Bar sectors received an hourly wage of less than IR£4.50. The final column of the table shows that it is the latter two of these sectors that accounted for the bulk of low-paid workers. Between them these two sectors accounted for 57 per cent of low-paid workers. Workers in the Textile and Apparel sector made up a relatively small proportion of those being paid less than IR£4.50 because they account for only 2 per cent of the total number of employees.

As well as describing the enterprises affected by the legislation we also asked firms to consider their likely responses to a situation in which the hourly wage of adult workers who were being paid less than IR£4.50 per hour were to rise to a minimum basic rate of IR£4.50. In particular, firms who had workers receiving IR£4.50 or less were asked for their views on how likely or otherwise each of 11 possible outcomes on business activities were as a result of introducing an hourly minimum rate of IR£4.50. The responses are summarised in Table 1.8 across sectors.

A total of 60 per cent of firms felt that it was likely that they would have to cut back on profit margins and 30 per cent felt it would be unlikely. In general, there was little variation by sector in this response, with the construction sector being least likely to reduce profit margins. Just under 62 per cent of firms indicated that they felt that the introduction of the minimum wage would improve staff morale, 20 per cent indicated that they felt it was unlikely to do so. Responses in the Retail; Hotel/Restaurant/Bar; and Personal and Other Service Sectors appear to be somewhat more optimistic than those in other sectors in terms of its effect on staff morale, with a substantially lower percentage

Table 1.8 Firms which have employees currently being paid less than £4.50 per hour classified according to their perceived responses to the hourly wage of adult employees (18 years and over) being raised to a minimum of £4.50 per hour (%)

	Sector								Total
	Build./ Constr.	Man./ Text./ Appar.	Other Man.	Retail	Wh. sale	Banking Finance	Hotel/ Res./ Bars	Pers. & Other Services	
<i>Cut back profit margins</i>									
Likely	47.8	78.7	58.1	61.5	61.5	61.2	58.7	60.5	59.7
Neither	1.7	4.6	8.9	7.2	7.8	1.3	16.4	13.9	9.8
Unlikely	50.5	16.7	33.0	31.3	30.7	37.5	24.9	25.6	30.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>Improve staff morale</i>									
Likely	50.2	41.7	54.7	66.8	52.1	62.5	56.9	71.9	61.8
Neither	12.5	25.0	19.7	13.7	13.0	2.6	26.4	26.1	17.9
Unlikely	37.3	33.3	25.6	19.5	35.0	34.9	16.7	2.1	20.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>Substitute labour with capital</i>									
Likely	1.0	21.4	25.3	4.8	8.8	2.0	8.5	15.1	7.7
Neither	1.7	13.6	9.5	13.5	5.1	7.9	17.6	14.6	13.1
Unlikely	97.2	65.0	65.2	81.7	86.0	90.1	73.9	70.3	79.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 1.8 Continued

Effect of raising adult hourly wage to £4.50	Sector								Total
	Build./ Constr.	Man./ Text./ Appar.	Other Man.	Retail	Wh. sale	Banking Finance	Hotel/ Res./ Bars	Pers. & Other Services	
<i>Increase productivity</i>									
Likely	23.0	25.1	23.0	18.5	11.9	26.3	25.2	25.2	22.0
Neither	4.2	28.4	13.8	22.9	13.4	25.7	29.0	26.1	23.3
Unlikely	72.8	46.4	63.2	58.6	74.7	48.0	45.7	48.7	54.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>Result in going out of business</i>									
Likely	1.4	37.0	13.0	14.2	13.6	10.5	24.6	18.7	16.7
Neither	11.9	9.7	10.0	7.6	6.8	11.2	17.3	20.4	12.3
Unlikely	86.7	53.2	77.0	78.2	79.6	78.3	58.1	61.0	71.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>Retrain staff</i>									
Likely	12.3	36.6	32.6	32.5	28.6	3.9	29.3	27.6	27.4
Neither	13.7	18.1	20.0	21.0	14.0	26.3	27.9	29.5	23.5
Unlikely	74.0	45.4	47.4	46.5	57.4	69.7	42.8	42.9	49.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>Increase subcontracting</i>									
Likely	3.1	30.8	15.4	5.7	6.6	1.5	2.1	8.1	5.1
Neither	1.4	7.6	11.8	7.8	9.5	20.1	17.5	14.9	12.3

Unlikely	95.4	61.6	72.8	86.6	83.9	78.4	80.4	77.0	82.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>No effect on business</i>									
Likely	69.7	34.3	32.6	41.1	32.3	42.8	36.7	33.8	40.1
Neither	1.4	9.7	14.7	15.9	16.7	8.5	32.8	28.9	20.5
Unlikely	28.9	56.0	52.7	43.0	51.0	48.7	30.5	37.3	39.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>Reduce non-wage costs</i>									
Likely	2.1	22.3	12.6	19.7	9.9	10.5	12.0	22.5	15.1
Neither	11.5	24.2	9.6	14.6	4.1	1.3	40.1	27.2	21.2
Unlikely	86.4	53.5	77.8	65.7	86.0	88.2	47.8	50.3	63.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>Improve IR</i>									
Likely	26.1	29.0	33.9	38.5	38.3	65.0	30.5	56.0	38.9
Neither	24.1	30.0	19.9	14.6	11.9	11.4	36.1	21.8	22.1
Unlikely	49.8	41.0	46.3	46.9	49.9	23.6	33.4	22.1	39.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>Reduce staff turnover</i>									
Likely	25.1	36.1	24.8	26.8	24.7	38.2	24.1	41.4	28.2
Neither	12.9	34.7	23.0	23.4	19.3	26.3	40.4	23.2	27.8
Unlikely	62.0	29.2	52.2	49.8	55.9	35.5	35.5	35.4	44.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

of respondents in all three sectors indicating that they felt the increase in wage level would be unlikely to improve staff morale. An important finding in this analysis is that only 8 per cent of firms in aggregate felt that the substitution of labour with capital would result from the introduction of the minimum wage while just under 80 per cent felt that this was unlikely to be the outcome. As one might expect, a much higher percentage of firms in the two manufacturing sectors indicated that it was 'likely' that substitution of labour with capital would be a result of minimum wage legislation. This implies that for many of the sectors analysed here any potential job losses as a result of the legislation will reflect scale rather than substitution effects.

Of the other effects analysed we notice that about one-quarter of firms thought that productivity increases were likely to arise from the legislation and that this was evenly spread over sectors, while 17 per cent of firms noted that it was likely that the introduction of the minimum wage would result in them going out of business. This was particularly high in the Manufacture of Textile and Apparel and also in the Hotel/Restaurant/Bar sectors. In contrast, a total of 40 per cent of firms said that that the legislation was unlikely to have any effect on its operations. In the next section we analyse labour market outcomes after the introduction of the legislation. In doing so we also compare firms' a-priori expectations with their ex-post actions.

### **3 The labour market consequences of the minimum wage legislation**

#### **Changes in the wage structure after the legislation**

To analyse the consequences of the legislation we conducted a follow-up survey of these firms in the late 2000/early 2001, approximately six months after the legislation was enacted. Attempts were made to contact each firm in the original survey. In addition a large number of additional firms were contacted. In total, information was collected on 1045 firms, 587 of which were interviewed in the first survey. In addition we identified 50 firms who had gone out of business by the time of the second sweep and a further 106 likely went out of business. This brings the total matched between the two surveys up to 743.<sup>3</sup>

Table 1.9 compares employment structure by pay range across the two surveys. As noted earlier 21 per cent of all persons employed in 1999 were paid a basic hourly rate of IR£4.50 or less. By 2001 this figure had fallen to just over 4 per cent of all workers. Details on comparable percentages for full-time and part-time workers are also given in the

Table 1.9 Persons engaged classified according to broad pay scale and full-time/part-time status for 1999 and 2001

	£4.50/hr or less		£4.51-£5.51		£5.51-£6.50		£6.51 or over		Total N	
	1999	2001	1999	2001	1999	2001	1999	2001	1999	2001
Full-time	13.7	2.2	15.8	10.6	17.6	16.1	52.9	71.1	741 000	1 048 100
Part-time	64.4	16.9	17.8	36.1	10.4	16.6	7.4	30.4	126 700	174 500
All persons	21.1	4.3	16.1	14.2	16.5	16.2	46.3	65.3	867 700	1 222 600

table. For example, in 1999 a total of 14 per cent of full-time workers were paid IR£4.50 or less per hour. By 2001 this percentage had fallen to a little over 2 per cent. Similarly, in 1999 a total of 64 per cent of part-time workers were paid less than IR£4.50 per hour. This figure was reduced to 17 per cent by 2001. By any standards chosen these changes would appear to represent very substantial reductions in the ‘risk’ of falling into the lowest pay grade outlined in the table. The 4.3 per cent of persons engaged who currently receive IR£4.50 or less represents approximately 52 600 persons, 23 000 of whom are employed on a full-time basis.

One can also see from the table that the percentage of full-time workers in the basic pay scale IR£4.51-IR£5.50 also fell over the period in question – from 16 per cent to 11 per cent. In contrast, the percentage of part-time workers in this pay scale increased from 18 per cent to 36 per cent. Furthermore, the percentage of part-time workers being paid IR£6.51 or more also increased substantially – from 7 per cent in 1999 to 30 per cent in 2001.

A detailed sectoral breakdown of the pay structure in both years is provided in Table 1.10. The bottom panel of this table provides the breakdown for all workers. This shows that the ‘risk’ of falling into the low wage group in 1999 was highest in the Hotel/Restaurant/Bar sector (49 per cent). This was followed by the Retail sector (39 per cent) and Manufacture of Textiles and Apparel (33 per cent). These three sectors stood out in the earlier survey as having particularly high rates of low-paid employees. It is clear from the table that by 2001 the situation has improved dramatically across all sectors. However, the ‘risk’ of low pay in the Hotel/Restaurant/Bar sector (14 per cent) and also the Retail sector (10 per cent) is still substantially above that in all other sectors. This means, for example, that the ‘risk’ or probability of being paid

*Table 1.10* Persons engaged classified according to broad pay scale, sector of employment and full-time/part-time status for 1999 and 2001

	£4.50/hr or less		£4.51– £5.51		£5.51– £6.50		£6.51 or over	
	1999	2001	1999	2001	1999	2001	1999	2001
<i>Full-time</i>								
Build./Construction	9.0	2.3	10.9	3.2	20.4	9.2	59.7	85.4
Man. Textiles/Appar.	32.2	2.9	23.0	23.0	14.9	40.6	29.9	33.5
Other Manuf.	8.9	1.9	17.6	10.6	20.2	22.8	53.3	64.8
Retail	24.0	3.5	23.6	20.0	20.8	22.6	31.7	53.8
Wholesale	14.2	0.8	19.7	9.2	19.0	19.0	47.1	70.9
Banking/Fin./Bus.	5.9	0.8	7.6	5.2	10.9	11.3	75.6	82.7
Hotel/Res./Bar	31.3	8.5	27.1	39.2	15.2	24.2	26.3	28.1
Pers. & Other	11.9	1.3	8.8	4.0	16.8	6.8	62.5	88.0
All Sectors	13.7	2.2	15.8	10.6	17.6	16.1	52.9	71.1
<i>Part-time</i>								
Build./Construction	12.2	2.2	3.0	7.2	40.9	9.3	43.9	81.4
Man. Textiles/Appar.	42.6	6.2	34.7	26.0	16.5	57.0	6.2	10.7
Other Manuf.	22.1	6.0	24.2	26.8	45.0	31.5	8.7	35.7
Retail	80.8	22.4	13.3	36.3	3.0	14.2	2.9	27.1
Wholesale	67.2	28.7	21.2	35.2	4.6	9.7	6.9	26.4
Banking/Fin./Bus.	57.8	11.9	17.6	24.1	10.4	14.0	14.1	50.1
Hotel/Res./Bar	79.0	23.0	16.7	63.7	4.1	10.8	0.2	2.6
Pers. & Other	38.0	5.3	25.5	12.8	12.3	24.4	24.2	57.5
All Sectors	64.4	16.9	17.8	36.1	10.4	16.6	7.4	30.4
<i>All persons</i>								
Build./Construction	9.1	2.3	10.6	3.3	21.2	9.2	59.1	85.2
Man. Textiles/Appar.	33.2	3.3	24.1	23.3	15.0	42.6	27.7	30.8
Other Manuf.	9.7	2.1	18.0	11.5	21.6	23.2	50.7	63.2
Retail	38.8	9.9	20.9	25.1	16.2	19.8	24.2	44.8
Wholesale	22.5	3.4	19.9	11.6	16.7	18.2	40.8	66.8
Banking/Fin./Bus.	10.7	1.6	8.5	6.7	10.8	11.5	69.9	80.3
Hotel/Res./Bar	49.3	13.8	23.2	48.1	11.0	19.3	16.5	18.8
Pers. & Other	14.9	1.8	10.8	5.1	16.3	9.0	58.0	84.1
All Sectors	21.1	4.3	16.1	14.2	16.5	16.2	46.3	65.3

IR£4.50 or less per hour in the Retail sector is 2.3 times the aggregate average probability for all sectors combined. The chances that persons engaged in the Hotel/Restaurant/Bar sector are paid IR£4.50 or less per hour is 3.2 times the average for all workers. At the same time there was a significant fall in the absolute number of persons paid at IR£4.50 per hour or less in both sectors. The figure in retailing fell from an estimated 57 000 in 1999 to 19 000 in 2001. Comparable figures for the Hotel/Restaurant/Bar sector are 47 500 persons in 1999 to 15 000 in

Table 1.11 Firms classified according to the percentage of their staff whom they recorded as having received an increase in hourly rate as a direct result of the introduction of the minimum wage

<i>Sector</i>	Percentage of persons receiving an increase in hourly rate as a direct result of minimum wage					Total
	None	Less than 10%	10% to less than 20%	20% to less than 50%	50% or more	
Building and Contract Manufacture	98.8	0.4	0.2	0.2	0.4	100.0
Textiles and Apparel	66.1	10.3	5.2	5.2	13.3	100.0
Other Manufacture	77.2	6.3	4.5	6.9	5.1	100.0
Retail	76.5	0.9	2.2	10.3	10.1	100.0
Wholesale	86.9	2.5	1.9	5.1	3.6	100.0
Banking/Finance/ Business	89.8	0.4	3.7	2.0	4.1	100.0
Hotels/Restaurants/ Bars	76.3	2.0	1.4	17.8	2.5	100.0
Personnel and Other Services	86.4	0.3	2.6	4.4	6.3	100.0
<i>All firms</i>	84.5	1.2	2.2	6.8	5.3	100.0

2001. To greater or lesser degrees the same overall trends in regard to the Retail and Hotel/Restaurant/Bar sectors are apparent among both part-time and full-time staff. Although part-time workers in the Wholesale sector appear to be relatively disadvantaged it should be pointed out that part-time workers in this sector account only for an estimated total of 4800 persons. This means that the 28.7 per cent of part-time workers in the sector who are paid IRE4.50 or less represent in the order of 1400 persons.

In the second survey we also asked firms to indicate the percentage of their staff whom they recorded as having received an increase in their hourly pay as a direct result of the introduction of the minimum wage. Table 1.11 provides a sectoral breakdown of the responses. We see that about 85 per cent of respondents said that no one in their company had received an increase as a direct result of the introduction of the minimum wage. This reached almost 100 per cent in Building and Construction. The three sectors which were most affected were the Manufacturing of Textiles and Apparel, the Retail sector and the Hotel/Restaurant/Bar sector. These results are consistent with the ex-ante results presented in Table 1.7.

When asked about the reduced minimum wage rates for young and inexperienced workers, 18 per cent of respondents said they had never heard of these sub minimum rates, and a further 76 per cent said they had never used them. While only 6 per cent overall said they had used these lower rates the figure was higher in certain sectors, such as the Retail and Hotel sectors. Nevertheless, even in these sectors the percentage was below 15 per cent.

### **Changes in employment after the legislation**

It is clear from these tables that the wage structure changed substantially between 1999 and 2001. Part of this change reflects the introduction of the minimum wage over this period, though part also reflects general wage growth in the economy. In this section we look at the likely impact of the legislation on employment in Ireland. The traditional competitive model of the labour market predicts that minimum wages reduce employment due to higher wage costs (see Allen, 1938 or Hicks, 1963 for comprehensive discussions about labour demand responses to wage changes in a competitive labour market). However, this model has been challenged recently, largely as a result of findings that seem to indicate that the employment effects of minimum wages are small and in some cases may even be positive (Card and Krueger, 1995). This has resulted in a renewed interest in monopsony models of the labour market and in particular dynamic monopsony models (see e.g. Dickens *et al.*, 1999). In these models frictions in the labour market can result in a situation where increases in the wage rate carry not only a cost but also an associated benefit in the form of greater labour supply. This can arise due to reductions in staff-turnover or an increased ability to fill vacancies among other reasons. This does not arise in the competitive model as it is assumed that firms can hire all the labour they require at the going wage rate. The upward sloping firm's labour supply curve is the key feature of monopsony type models and can lead to a situation where modest increases in the minimum wage can increase employment.<sup>4</sup>

In a recent paper O'Neill, Nolan and Williams (2002) use the matched sample of firms in the two surveys to assess the impact of the minimum wage on employment in Ireland. They use variation in labour market outcomes across firms over time to identify the minimum wage effect. In particular firms who reported having low-wage workers in the first sweep were used as the treatment group; that is, those most likely to be affected by the legislation. Almost 50 per cent of firms in the first sweep are recorded as having had at least one worker receiving less than IR£4.50 in 1999 and on average 45 per cent of workers in these firms received less

than IR£4.50. Changes in labour market outcomes over time for this group were compared with those firms who had no minimum wage workers in 1999. This specification suggests that the minimum wage had very little impact on employment over this period. Average employment growth for the affected enterprises was 17.6 per cent over this period, compared to 18.8 per cent for firms that had no workers in the low wage category in 1999. The  $p$ -value on the estimated difference in growth rates was 0.84. This finding is robust to a number of specification checks and strongly supports the view that employment growth among firms with low wage workers prior to the legislation was not significantly different to that for firms not affected by the legislation.

We can also use published national employment data to examine the employment effects of the minimum wage. The Quarterly National Household Survey is carried out each quarter by the Central Statistics Office. The purpose of the survey is the production of quarterly labour force estimates. Information is collected continuously throughout the year, with 3000 households surveyed each week to give approximately 39 000 households in each quarter. This sample is used to produce quarterly employment figures for the Irish economy which can be disaggregated by gender, industry and region. Of interest in this study is the sectoral data. As noted earlier two sectors; the Retail sector and the Hotel, Restaurant and Bar sector together accounted for 57 per cent of low-paid workers and these sectors also reported a relatively large proportion of their workers affected by the legislation. To the extent that the minimum wage had a significant impact on employment we would expect most of the action to occur in these two sectors. To examine this we analyse quarterly employment growth figures in these two sectors between 1997 and 2002. In particular, we estimate the following equation

$$\% \Delta E_t^j = \alpha + \beta_1 MW_{t-1} + \beta_2 MW_t + \beta_3 MW_{t+1} + \sum_{i=1}^3 \delta_i SDUM_i + \gamma \% \Delta E_t^{\text{indus}}$$

where

$\% \Delta E_t^j$  denotes the quarterly employment growth at time  $t$  in sector  $j$ , where  $j$  = Retail sector or the Hotel/Restaurant/Bar sector.

$MW_t$  is a dummy variable denoting a quarter in which the minimum wage was introduced or increased.

$MW_{t-1}$  is a dummy variable denoting a quarter preceding an increase in the minimum wage.

$MW_{t+1}$  is a dummy variable denoting a quarter following an increase in the minimum wage.

$SDUM_i$  is a series of quarterly dummies.

$\% \Delta E_t^{\text{indus}}$  denotes the quarterly employment growth in the entire industrial sector at time  $t$ .

The strategy in this specification is to use time variation in the employment growth rate in the most affected sectors to identify the minimum wage effect. The employment growth in the entire industrial sector at time  $t$  is used to control for national employment trends, while the seasonal dummies control for industry-specific seasonal effects. The minimum wage is allowed to affect employment growth, not only in the quarter it is introduced but also in the preceding quarter (a lead effect) and the following quarter (a lag effect).<sup>5</sup> Although the number of observations available for this analysis is limited, it does have an advantage over the earlier approach in that it uses information on the second minimum wage hike in July 2001, which was not used in the earlier analysis.

The results are presented in Table 1.12, where the first column refers to the Wholesale and Retail sector and the second column refers to the

*Table 1.12* The impact of minimum wage changes in the Wholesale and Retail sector and the Hotel/Restaurant/Bar sector ( $t$ -stats in parenthesis)

Variable	Wholesale/Retail	Hotel/Restaurant/Bar
Constant	1.95* (3.47)	-1.26 (-1.02)
$MW_{t-1}$	-1.18 (-1.24)	1.56 (0.74)
$MW_t$	1.73 (1.73)	0.38 (0.17)
$MW_{t+1}$	-0.09 (-0.09)	1.6 (0.74)
$SDUM_1$	-1.66* (-2.12)	2.02 (1.17)
$SDUM_2$	0.897 (0.55)	6.7* (1.87)
$SDUM_3$	-5.2* (-5.9)	-5.4* (-2.78)
$\% \Delta E^{\text{indus}}$	0.54 (1.78)	1.09 (1.65)
$R^2$	0.93	0.92
$N$	18	18

Note: \* Significant at 5% level.

Hotel/Restaurant and Bar sector. Looking at the seasonal dummies we see, as expected, high employment growth in the Hotel sector during the summer months. Employment growth is also significantly less in both sectors during the autumn period (the omitted dummy corresponds to the winter months). The overall industry employment growth is positively related to sectoral employment growth but is on the margin of statistical significance. However, of more interest to us are the minimum wage variables. In neither sector is employment growth significantly different in the months surrounding the minimum wage relative to other months. The sum of the minimum wage coefficients and their standard errors are 0.46 (1.92) and 3.5 (4.25) in the Wholesale/Retail sector and the Hotel/Bar/Restaurant sector. There is no evidence of a negative minimum wage effect and none of the coefficients, either individually or combined are statistically different from zero. While we must be careful in drawing too much from these estimates, since identification is based on just two minimum wage changes, the results are consistent with the earlier findings based on the more detailed firm surveys. Using information on wage changes resulting from the legislation Nolan *et al.* (2002) suggest that  $-0.5$  may be an upper bound for the elasticity of labour demand among firms included in our survey. Our finding that the minimum wage appears to have had a relatively small impact on employment is consistent with recent work on the UK national minimum wage, which was introduced one year before the Irish legislation (see e.g. Stewart, 2001).

### **Changes in other outcomes after the legislation**

As noted earlier the establishment surveys that we carried out contain not only information on employment structure but also information on the potential effects of the minimum legislation on a number of other outcomes. In the first survey we asked firms the likely impact of a hypothetical increase in the wage rate to the level specified in the legislation. The responses to these questions were discussed in Section 2. In the second survey we asked firms to state what effect the legislation actually had on these same outcomes. Tables 1.13 and 1.14 summarise the responses by sector. We see in Table 1.13 that very few respondents felt that the minimum wage had a significant effect on their operations in terms of the way work is organised, working hours, use of less experienced staff, increased prices for their products, profit levels, reducing expenditure on training and development of employees, monitoring of employees, increasing spending on training, use of technology or machinery and improving the quality of service. About 4 per cent did

Table 1.13 Firms classified according to their perceptions of the impact of the minimum wage on a series of operational and related aspects of their business

Perceived effect of minimum wage	Build. and Cons.	Man./ Text./ Appar.	Other Man.	Retail	Whole sale	Bank/ Fin./ Bus.	Hotel/ Res./ Bars	Pers./ Other Servs.	Total
<i>Changed pay and benefits structure</i>									
Significant	0.8	5.2	4.9	5.0	3.3	2.0	7.8	2.9	3.7
Slight	0.6	17.0	10.3	9.5	8.5	11.9	27.3	13.7	11.7
None	98.6	77.9	84.8	85.6	88.2	86.0	64.9	83.4	84.6
<i>Changed work organisation</i>									
Significant	0.2	3.3	18.0	2.1	1.0		2.0	0.3	1.0
Slight	0.6	8.5	3.2	6.7	7.5	9.5	17.5	6.4	7.7
None	99.2	88.2	94.9	91.2	91.5	90.5	80.6	93.2	91.3
<i>Reduction of working hours</i>									
Significant	0.2		0.5	1.2			0.6	0.3	0.5
Slight	0.4	3.3	2.7	7.6	3.6	6.0	30.2	6.1	8.4
None	99.4	96.7	96.8	91.2	96.4	94.0	69.3	93.6	91.1
<i>More inexperienced staff</i>									
Significant	0.2		0.9	1.4			0.8	0.3	0.6
Slight	0.8	5.2	4.3	5.3	7.5	6.3	30.6	10.0	9.1
None	99.0	94.8	94.7	93.3	92.5	93.7	68.5	89.7	90.3
<i>Increased prices</i>									
Significant	0.4	6.7	3.2	1.4	1.7	0.4	2.2	4.5	1.8
Slight	1.6	15.2	10.6	15.2	13.6	8.0	46.2	10.3	14.9
None	98.0	78.1	86.1	83.4	84.8	91.6	51.5	85.2	83.2
<i>Reduced profits</i>									
Significant	0.4	5.2	3.9	3.8	1.8	0.2	2.2	2.2	2.1
Slight	2.2	21.8	12.8	19.3	12.7	12.1	41.0	11.5	16.3
None	97.4	73.0	83.3	76.9	85.5	87.7	56.8	86.3	81.6
<i>Reduced expend on training</i>									
Significant			0.5	2.0			0.6		0.6
Slight	0.6	6.7	3.4	2.9	4.3	6.1	14.7	6.2	5.4
None	99.4	93.3	96.0	95.1	95.7	93.9	84.7	93.8	94.0
<i>Tightened control on labour</i>									
Significant	0.2	6.7	4.7	4.1	2.6	0.4	3.4	0.9	2.2
Slight	1.0	13.6	7.4	9.6	8.5	6.3	18.6	8.5	8.6
None	98.8	79.7	87.9	86.3	88.9	93.3	78.0	90.6	89.2
<i>Increased training and development</i>									
Significant	0.4		2.2	0.4	2.5	0.4	2.0	2.3	1.2
Slight	0.2	6.7	5.4	6.3	5.1	6.1	25.4	6.5	7.8
None	99.4	93.3	92.4	93.3	92.5	93.5	72.7	91.2	91.0

Table 1.13 Continued

Perceived effect of minimum wage	Build. and Cons.	Man./ Text./ Appar.	Other Man.	Retail	Whole sale	Bank/ Fin./ Bus.	Hotel/ Res./ Bars	Pers./ Other Servs.	Total
<i>Increase in technology/ machinery</i>									
Significant	0.4	5.2	3.8	0.5	1.7	0.6	0.6	2.0	1.0
Slight	0.6	11.8	5.3	6.5	5.9	6.7	15.8	6.2	6.8
None	99.0	83.0	91.0	93.0	92.5	92.7	83.6	91.8	92.2
<i>Quality of service/ product</i>									
Significant	0.4		0.5	1.9	0.8	0.2	0.8	1.4	1.0
Slight	0.6	13.6	7.0	7.8	6.7	6.9	17.5	6.8	7.7
None	99.0	86.4	92.4	90.2	92.5	92.9	81.7	91.8	91.3

Table 1.14 Firms classified according to their perceptions on the direction of effect of the minimum wage on a number of areas of business, by sector

	Effect of minimum wage on								
	Build. and Cons.	Man./ Text./ Appar.	Other Man.	Retail	Wh. sale	Prop./ Rent/ Bus.	Hotels Res./ Bar	Pers. & Other Servs.	Total
<i>Staff morale</i>									
Decrease	0.4	1.8	0.9	2.0	1.6			0.5	0.8
No effect	96.1	81.0	88.2	82.4	87.6	97.0	72.1	89.4	87.4
Increase	3.5	17.2	10.9	15.6	10.7	3.0	27.9	10.1	11.8
<i>Productivity</i>									
Decrease	0.4		1.6	0.9	0.8		0.3	0.3	0.5
No effect	95.9	83.0	92.0	88.2	94.3	97.8	88.6	94.7	92.8
Increase	3.7	17.0	6.3	10.8	4.9	2.2	11.1	5.0	6.7
<i>Staff retraining/ upgrading</i>									
Decrease	0.2			0.9	1.6	0.2	0.6	0.3	0.6
No effect	99.6	93.3	93.1	92.7	92.5	97.8	94.1	96.2	95.3
Increase	0.2	6.7	6.9	6.3	5.8	2.1	5.3	3.5	4.1
<i>Subcontracting</i>									
Decrease	0.4		0.7		0.8		0.3	1.0	0.4
No effect	99.0	93.1	95.6	95.5	96.6	97.5	97.5	99.0	97.3
Increase	0.6	6.9	3.6	4.5	2.6	2.5	2.2		2.4
<i>Staff turnover</i>									
Decrease	3.1		1.3	1.7	1.6		16.3	1.0	3.4
No effect	96.3	86.4	92.7	92.9	92.5	97.0	73.7	95.8	92.0
Increase	0.6	13.6	6.0	5.4	5.8	3.0	10.0	3.2	4.7
<i>Industrial relations</i>									
Decrease	3.1	5.1	1.1	0.9	0.8		0.6	0.3	0.9
No effect	96.5	87.9	95.1	95.2	94.2	97.9	97.2	97.4	96.3
Increase	0.4	6.9	3.8	3.9	5.0	2.1	2.2	2.3	2.7

say that there was a significant impact on workers' pay and benefits structures, for example, overtime or pay supplements. A considerably larger percentage said that the minimum wage had a slight effect across these various dimensions, with the highest proportions giving that response tending to be in the Textiles and Clothing and particularly in the Hotel/Restaurant/Bar sectors.

Firms were then asked about the impact of the minimum wage on aspects of their business such as morale, productivity, retraining, subcontracting, turnover and industrial relations. We see from Table 1.14 that most firms in each instance said that the minimum wage had no effect in any of these areas. Among the minority who said there was some effect, most felt that morale had improved, productivity had increased and industrial relations had improved. The most even divide was in the case of staff turnover, where only 8 per cent felt the minimum wage had an impact but 3 per cent then said it had decreased and 5 per cent that it had increased. As noted earlier reductions in staff turnover are sometimes cited as justification for monopsony type models of the labour market, which in can turn can generate positive employment effects for minimum wages. Interestingly in this respect 16 per cent of firms in the Hotel sector report that the minimum wage decreased staff-turnover. The average across all sectors was 3.4 per cent. However this must be balanced by the fact that 10 per cent of firms in this sector said that turnover actually increased – the average here was 4.7 per cent. This sector is also more likely to report having increased prices and seen their profits fall as a result of the legislation.

Finally, it is interesting to compare the ex-ante responses to the likely impact of minimum wages provided in the first survey with the ex-post reactions given in the second survey. We begin by looking at the firms who went out of business. We noted in Table 1.8 that almost 17 per cent of firms in the first survey reported that the minimum wage would likely see them go out of business. In contrast, as noted earlier, we identified 50 firms or 4.7 per cent of the original sample that had certainly gone out of business between 1999 and 2001. A further 106 firms could not be contacted at the original address, so they had either moved or had gone out of business but we could not clearly establish which was the case. Almost half of these 156 firms had no minimum wage workers in the first survey. For firms that did have minimum wage workers we can cross tabulate their ex-ante perceptions with their ex-post actions in order to determine the ex-post accuracy of their perceptions. The results are

*Table 1.15* Cross-tabulation of perceived consequences of the minimum wage on likelihood of closure and actual ex-post business status

<b>Business status in 2001 after the introduction of the</b>	<b>As of 1999 how likely do you think it is that a minimum wage of £4.50 will result in your firm going out of business (%)</b>			
	<b>Likely</b>	<b>Neither likely nor unlikely</b>	<b>Unlikely</b>	<b>Total</b>
In business 2001	0.13	0.11	0.56	0.80
Out of business 2001	0.03	0.03	0.14	0.20
<b>Total</b>	<b>0.16</b>	<b>0.14</b>	<b>0.70</b>	<b>1.00</b>

given in Table 1.15. Looking first at the 16 per cent of firms who initially stated that the proposed minimum wage would likely lead to them going out of business we see that only 19 per cent (0.03/0.16) of these firms actually did go out of business. Furthermore, this is not very different to the 20 per cent of firms who did not feel the minimum wage would lead them to go out of business but nevertheless had gone out of business by the time of the second survey. There seems to be little relationship between a firm's ex-ante belief about closing down and the ex-post likelihood of having gone out of business.

Table 1.16 correlates firms' ex-ante and ex-post reactions to the minimum wage along a number of other dimensions – namely its effect on profits, substitution of capital for labour, reduced turnover and increased productivity. Again these results suggest that firms' initial perceptions are only weakly related to ex-ante outcomes. For instance although 21 per cent of firms initially thought that the minimum wage would reduce staff-turnover, 95 per cent of these firms subsequently reported that the minimum wage had no effect on staff turnover. Likewise although 17 per cent of firms initially felt that the minimum wage would increase productivity, 82 per cent of these subsequently reported that it had no effect on productivity. Indeed, as noted earlier, the picture that emerges from the final column in each of these panels is that not only does the introduction of the minimum wage appear to have had no effect on Irish employment, it also appears to have had little effect on most dimensions of business organisation at the time it was introduced.

*Table 1.16* Cross-tabulation of perceived consequences of the minimum wage on likelihood of closure and actual ex-post business status

<b>Did the introduction of the minimum wage lead to a reduction of profits in your firm</b>	<b>As of 1999 how likely do you think it is that a minimum wage of £4.50 will result in cutting back on profit margins (%)</b>			
	<b>Likely</b>	<b>Neither likely nor unlikely</b>	<b>Unlikely</b>	<b>Total</b>
Significant effect	0.04	0.00	0.02	0.06
Slight effect	0.26	0.00	0.07	0.34
No effect	0.35	0.03	0.23	0.60
Total	0.65	0.03	0.32	1.00
<b>Did the introduction of the minimum wage lead to an increased use of technology</b>	<b>As of 1999 how likely do you think it is that a minimum wage of £4.50 will result in the substitution of low wage workers with machines</b>			
	<b>Likely</b>	<b>Neither likely nor unlikely</b>	<b>Unlikely</b>	<b>Total</b>
Significant effect	0.00	0.00	0.01	0.01
Slight effect	0.02	0.02	0.14	0.18
No effect	0.03	0.09	0.69	0.81
Total	0.05	0.11	0.84	1.00
<b>Did the introduction of the minimum wage lead to a reduction in staff turnover</b>	<b>As of 1999 how likely do you think it is that a minimum wage of £4.50 will reduce staff turnover</b>			
	<b>Likely</b>	<b>Neither likely nor unlikely</b>	<b>Unlikely</b>	<b>Total</b>
Significant decrease	0.00	0.00	0.00	0.00
Slight decrease	0.01	0.00	0.06	0.07
No effect/increased	0.20	0.29	0.44	0.93
Total	0.21	0.29	0.50	1.00
<b>Did the introduction of the minimum wage lead to a increase in staff productivity</b>	<b>As of 1999 how likely do you think it is that a minimum wage of £4.50 will increase productivity</b>			
	<b>Likely</b>	<b>Neither likely nor unlikely</b>	<b>Unlikely</b>	<b>Total</b>
Significant increase	0.00	0.00	0.00	0.00
Slight increase	0.03	0.02	0.09	0.14
No effect/decreased	0.14	0.24	0.48	0.86
Total	0.17	0.26	0.57	

## 4 Conclusion

A national minimum wage was introduced in Ireland on 1 April 2000. This chapter draws on a number of sources to describe the characteristics of those firms and workers most likely affected by the legislation. It also analyses the likely consequences of the legislation for these workers and firms. Not surprisingly women and younger workers faced a greater risk of being affected by the legislation, as did workers in the Retail sector and the Hotel/Restaurant and Bar sector. While there were relatively large changes in the pay structures within firms over this period, our analysis shows that these changes appear to have had little impact on employment or other features of the firm's organisation. However, one must be careful in drawing inferences from these results. In many respects the introduction of the minimum wage in Ireland may have been relatively smooth primarily because it took place at a time when the economy was growing rapidly and wages were increasing. These results need not generalise to an economy that is in decline. However, as noted earlier, the responsiveness of labour demand to wage changes seems to be relatively small – the elasticity is approximately  $-0.5$  for the very small number of firms who were most adversely affected by the legislation. Thus while the general response to the introduction of a national minimum wage has been positive, the challenge for policy makers is to ensure that future alterations to the minimum wage are implemented in a smooth fashion so that it has the desired effects at minimum cost.

## Acknowledgements

I would like to thank Brian Nolan and James Williams for their contribution to earlier joint research on the impact of the minimum wage in Ireland.

## Notes

1. IRE1 is approximately 1.27 Euro.
2. This part of the analysis draws heavily on work by Nolan *et al.* (1999).
3. Although sample attrition between the two surveys may be a potential problem we have carried out a number of checks which suggest that attrition was random with respect to the pay structure of the firm.
4. For a summary of these models and recent empirical analysis related to the minimum wage see Brown (1999).
5. A similar specification was used by Aaronson (2001) to look at the price pass-through effects of the minimum wage.

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