



The Incidence and Correlates of Workplace Bullying in Ireland*

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Abstract

This paper reports the results of the first nationally representative survey of the incidence of workplace bullying in the Republic of Ireland. The results are based on analysis of a sample of over 5,200 individuals in paid work outside the home. Overall, 7% of persons in the work-place report that they experienced bullying in the 6 months preceding the survey. Bullying victimisation was far more common among employees than among the self-employed, and victimisation rates were higher among women than men. Almost 3% of those at work report that they experienced bullying either daily or several times per week during the reference period. Multivariate analyses of the incidence of bullying suggest that workplace characteristics are more influential than personal attributes in determining bullying victimisation.

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Introduction

There is growing awareness that bullying in the workplace represents a major occupational problem, with serious implications both for the well-being of workers as well as for the performance of organisations. Research on workplace bullying is relatively new. Many of the early studies were conducted in the Scandinavian countries during the 1980s, but this field of research is developing, with a growing number of papers appearing in the 1990s. As a developing field, much attention continues to be focused on measuring the incidence of bullying, and there has been less attention paid, as yet, to the correlates of workplace bullying.

While there has been considerable variation in the manner in which workplace bullying is measured in different studies and in different countries, some consistency in approaches to its operationalisation have emerged. Most definitions of bullying are based on self-reports of inappropriate or negative behaviour from the targets of bullying. This means that subjective assessment and self-labelling are essential, resulting in some vulnerability to methodological problems. The approach adopted in the present study, where respondents are presented with a description or definition of bullying and asked whether they would regard themselves as having experienced bullying, is similar to that used in several other studies (e.g. Hoel and Cooper, 2000; Unison, 1997). One of the elements of bullying entails persistence over time, and many definitions centre around 6 months, with several studies, including the present, focusing on experiences occurring within the last six months (e.g. Einersen and Skogstad, 1996; Einersen and Raknes, 1997; Hoel and Cooper, 2000).

Where similar approaches to measurement are adopted there appears to be some consistency in the international research regarding the incidence of workplace bullying. For example, Einersen and Skogstad (1996) compiled the results of union membership surveys of almost 8,000 employees in Norway, and found that 8.6% of surveyed employees had been “subjected to bullying in the workplace during the last six months.” Additional response categories allowed them to distinguish 4 per cent who had been bullied “once or twice”; 3.4 per cent who had been bullied “now and then”; and 1.2 per cent who reported that they had been bullied on a weekly basis. Hoel and Cooper (2000), in their survey of 5,228 employees in the United Kingdom, found that 10.5 per cent of employees reported that they had been bullied within the last six months, and that 1.4 per cent were exposed to bullying on either a daily or weekly basis.

There is strong evidence that the incidence of bullying varies substantially in different occupations and industries. Both of the above studies, based on large samples, make it possible to measure the scale of the bullying problem on a sound basis, and to examine variation in bullying between occupations and economic sectors. In the Norwegian study, which is based on a series of surveys in trade-unions, Einersen and Skogstad (1996) show differences in the incidence of bullying across a range of occupations/sectors. In the UK study, the incidence of bullying can be disaggregated by fairly detailed occupation and industry, with the result that it is possible to identify high risk occupations (e.g. prison officers) or economic sectors (e.g. teaching and post and telecommunications).

Where the period of measurement is extended, the existing research shows much greater variation in bullying incidence. Thus, Hoel and Cooper (2000) estimate that

24% of employees had experienced bullying in the past five years. Rayner (1997) found that over half of a sample of part-time students at Staffordshire University had experienced bullying at some stage in their working lives.

There is widespread evidence that bullying has negative effects on health, psychological well-being and job-satisfaction (Björkqvist, Österman and Hjelt-Bäck, 1994; Einersen and Raknes, 1997). Attention has also turned to responses to bullying. This includes organisational responses to deal with and prevent bullying (Cox and Cox, 1993) as well as individual coping strategies (Hoel and Copper, 2000).

In the Irish case, the published literature on the extent of workplace bullying is very limited (Costigan, 1999), and appears mainly confined to qualitative or anecdotal accounts. This paper reports the results of the first nationally representative survey of workplace bullying in the Republic of Ireland, and as such seeks to fill the gap in our knowledge of the incidence of such bullying in Ireland. In the next section we describe the survey methodology and response levels and discuss the definition of bullying which was used in the survey. We then provide a mainly bi-variate descriptive analysis of the main results of the survey, showing the incidence of bullying by various breakdown variables, including gender, employment status, occupation and economic sector. This is followed by a multi-variate analysis of the incidence of bullying in order to distinguish the statistically significant influences on the probability of experiencing bullying while controlling for other relevant factors.

Methodology

The survey was conducted on a telephone basis by trained professional interviewers from the permanent panel of interviewers employed by the Economic and Social Research Institute. The results presented in this report are based on an analysis of the 5,252 questionnaires which were successfully completed. Interviewing took place in 189 randomly selected sampling points throughout the country between mid-October 2000 to early February 2001. Sampling took place on a two-stage clustered basis. At the first stage, the 189 sampling points were selected at random. These were generated from the national Electoral Register and were made up of so-called District Electoral Divisions (DEDs). At the second stage of sampling, telephone numbers were randomly selected from within each sampling point. The target population for the survey consisted of all persons at work outside the home.

Table 1: Survey Response Outcomes

	<i>Number</i>	<i>%</i>
Completed	5,252	55
Partially completed	130	1
Refused	3,059	32
Out of quota	1,020	11
<i>Total Valid Calls</i>	<i>9,461</i>	<i>100</i>
Consistent no reply	6,697	–
Business Number	3,117	–
Non-existent	3,499	–
<i>Total</i>	<i>27,653</i>	<i>–</i>

Table 1 outlines the response rates to the survey. In the first instance, a total of 27,653 calls were made. These generated 9,461 valid calls, with the remainder being made up of consistent non-replies, business numbers, and non-existent numbers. Of the valid calls, there were 3,059 households in which there was someone working in the household but where the respondent refused to participate in the survey, and a further 130 partially completed interviews which were not used in the analysis. The telephone sample included a quota control classified by gender; broad age cohort and broad principal economic status. This was imposed at the initial point of contact with the household in order to ensure that the completed sample of those in the workforce would be roughly in line with the population as a whole. When the interviewer had completed the required number within each cell in this 3-way classification he/she did not continue completing interviews with persons of that given set of characteristics so as to avoid unduly biasing the sample. A total of 1,020 households were out of quota in this sense, and not interviewed. The final total of 5,252 fully completed and usable interviews represents an effective response rate of 55% of the valid sample.

The sample was re-weighted to compensate for any biases in the distribution of characteristics in the completed survey sample compared to the population of interest, due to possible sampling error, the nature of the sampling frame used or differential response rates. Re-weighting was achieved using data on gender, age group, educational attainment, principal economic status and economic sector from the second quarter of the *Quarterly National Household Survey, 2000*, a nationally representative survey of a sample of 33,000 households conducted by the Irish Central Statistics Office.

The Questionnaire

The questionnaire was structured into 3 main sections. Section A recorded details from *all respondents* on the nature and characteristics of their employment as well as general questions on their outlook on life; their sense of satisfaction with their job; and general measures of their levels of stress and sense of control over their life.

Section B was administered only to those who reported that they had been bullied either currently or at some time in the past 6 months. Details were recorded on the nature of the bullying; the perpetrators of the bullying; the consequences of the bullying and the victims responses to the bullying.

The survey was conducted with the respondent in his/her home rather than, for example, their place of work. The questionnaire took an average of 15 minutes to administer for someone who had not been bullied while it took at least 40 minutes for those who had experienced some form of bullying in the workplace.

The Definition of Bullying

The definition used in the survey is central to the results obtained. In administering the questionnaire we avoided any mention of bullying until Section A (which recorded background classificatory information, measures of stress levels etc.) had been completed with all respondents. In the introduction to the survey, the interviewer talked in terms of carrying out a survey of *experiences in the workplace*. The term 'bullying' was not mentioned until after all classificatory information was recorded as well as variables designed to measure levels of stress and views towards the workplace, management etc.

When these background details had been recorded a formal definition of bullying was presented to the respondent. All interviewers were instructed to ensure that the full definition was read to all respondents and that the respondent was given sufficient time to ensure that he/she fully understood what it entailed. The definition used was as follows:

By bullying I mean repeated inappropriate behaviour, direct or indirect, whether verbal, physical or otherwise, conducted by one or more persons against another or others, at the place of work and/or in the course of employment, which could reasonably be regarded as undermining the individual's right to dignity at work. An isolated incident of the behaviour described in this definition may be an affront to dignity at work but is not considered to be bullying.

The Results

In this section we outline some of the key results on the incidence and nature of bullying in the Irish labour force as reported in the survey. Table 2 shows the incidence and frequency of bullying by employment status and gender. The data show that overall, exactly 7% of persons in the work-place in Ireland record that they experienced bullying in the 6 months preceding the survey. Bullying victimisation was far more common among employees (7.9%) than among the self-employed (2.3%).

Table 2: Incidence and Frequency of Bullying Victimisation over past Six Months

	All	Employees	Self-employed
	%	%	%
Only occasionally	2.7	3.0	0.9
Several times per month	1.5	1.7	0.5
Several times per week	1.3	1.5	0.1
About daily	1.4	1.6	0.6
Ever bullied in last 6 months	7.0	7.9	2.3
Number of cases	5251	4384	876

Those who reported having been bullied in the reference period were asked about the frequency of such bullying. Overall, 2.7% of the sample reported that they had been bullied “Only occasionally”, 1.5% that they had been bullied “Several times per month” and 1.5% reported a frequency of “Several times per week”. Another 1.4% reported that they had been bullied “About daily” over the previous six months.

The rates of bullying victimisation among employees in Ireland can be compared with the findings from similar studies in Britain (Hoel and Cooper, 2000) and Norway (Einarsen and Skogstad, 1996). Both studies adopt a similar approach to measuring

bullying, incorporating an explicit definition of bullying, both relate to a six-month reference period, and both measure the frequency of bullying. Hoel and Cooper found that 10.6% of employees in Britain had been bullied in the six months preceding their survey, while Einarsen and Skogstad found that the comparable figure for Norway was 8.6%. Table 2 above indicates a corresponding incidence of 7.9% among employees in Ireland. While the frequency of bullying is measured somewhat differently in each study, the surveys do appear to be roughly comparable at frequencies of several times per month, or more frequently. In Ireland, 4.8% of employees were bullied several times per month or more frequently, compared with 2.4% in the British study and 4.6% in the Norwegian study.

Table 3 shows the incidence of bullying by employment status and gender. Women are more likely to report that they have been the victims of bullying in the workplace than men: 9.5% of all women experienced bullying, compared to 5.3% of men. Almost 10% of female employees experienced bullying, less than 2% of self-employed men did so.

Table 3: Incidence of Bullying Victimization by Employment Status and Gender

	Employee	Self-employed	All
	%	%	%
Men	6.4	1.8	5.3
Women	9.9	4.4	9.5
All	7.9	2.2	7.0

Table 4 shows the incidence of bullying by age group and gender. One can see from this that there is some evidence to suggest that the incidence of bullying is highest in the 26-45 year age groups and that it declines somewhat thereafter with age. This trend appears to hold for both men and women, and for employees. However, the self-employed display a different pattern, with the highest incidence occurring in respect of those aged 25 years or less, 7.3% of whom reported having been bullied, and falling substantially in the older age groups.

Table 4: Incidence of Bullying by Gender and Age Group

	Age Group					Total
	25 yrs or less	26-35 years	36-45 years	46-55 years	56 or more	
	%	%	%	%	%	%
Men	5.0	6.0	6.2	4.8	2.6	5.3
Women	8.2	11.6	10.4	7.6	5.3	9.5
All	6.4	8.5	7.9	5.8	3.3	7.0
Employees	6.4	9.4	9.3	7.5	3.9	8.0
Self-employed	7.3	2.7	2.3	1.2	2.2	2.2

Table 4 shows the incidence of bullying according to highest level of educational attainment. The risk or incidence level rises directly with level of attainment. Thus, 5.4 per cent of those with, at most, lower secondary education considered themselves to have been bullied. This compares with 6.1% of those who have completed upper secondary education and 8.9% of those who have completed tertiary education. This relationship between level of attainment and risk of bullying is particularly clear among males, less so among women.

Table 5: Incidence of Bullying by Educational attainment

	Lower Secondary	Upper Secondary	Tertiary	Total
	%	%	%	%
Men	4.2	5.3	6.5	5.3
Women	8.3	7.2	11.6	9.5
All	5.4	6.1	8.9	7.0
Employees	6.6	6.7	9.9	8.0
Self-employed	0.9	2.5	3.5	2.2

The positive relationship between education and bullying victimisation might be counterintuitive, and may be related to expectations regarding acceptable standards of behaviour in the workplace. It may also be related to the differences in the nature and size of organisations in which people at different levels of education tend to work. Those with higher education attainment are more likely to work in the Public Administration sector, which tends to suffer higher rates of bullying. They may also tend to work in larger organisations, which, with hierarchical structures, may be more prone to bullying. This is an issue to which we can return in the multivariate analysis in the following section.

Table 6: Incidence of bullying classified by social class and gender

	Men	Women	All	Employees	Self- employed
	%	%	%	%	%
Higher Professional	5.0	11.6	6.9	8.5	3.3
Lower Professional	5.4	11.8	8.6	10.7	1.2
Other Non-manual	6.4	8.8	7.8	8.2	4.0
Skilled Manual	4.3	4.7	4.4	5.4	0.7
Semi-skilled Manual	4.8	7.2	6.1	6.2	4.3
Unskilled Manual	7.4	7.7	7.5	7.8	2.9
Total	5.3	9.4	7.0	7.9	2.2

Table 6 summarises the relationship between the incidence of bullying and social class. The aggregate results for all persons (male and female combined) are somewhat mixed. There would appear to be no evidence to suggest that the risk of bullying is confined to or concentrated within any particular social class categories. In general, it would appear to be a pervasive problem across the entire social

spectrum. Contrary to much popular speculation, it is certainly not the preserve of the manual class categories. Indeed, in broad terms, the risk of bullying is higher among the professional and ‘other’ non-manual groups than in other class categories.

When disaggregated in terms of gender there is no systematic pattern in the risk among males according to social class. The highest risk levels among women are in the top two class categories - 11.6% and 11.8% for the Higher and Lower Professional groups respectively – although, overall, the percentage point differences between the professional and other groups are not substantial.

Table 7: Bullying Incidence by Economic Sector

	Men	Women	All	Employees	Self-employed
	%	%	%	%	%
Agricultural	1.9	3.1	2.0	3.1	1.8
Traditional Manufacturing	7.0	8.7	7.5	8.0	1.9
Hi-Tech Manufacturing	6.4	12.9	8.3	8.7	0.0
Construction	3.0	10.3	3.4	4.5	0.0
Wholesale/Retail	4.4	6.2	5.3	5.7	2.7
Business Services	4.0	10.9	7.0	7.4	5.0
Transport & Communications	3.5	11.2	5.4	6.1	2.4
Financial Services	9.3	10.4	9.9	10.1	7.9
Public Administration	12.1	13.5	12.6	12.9	0.0
Personal & Other Services	6.4	9.4	8.4	9.0	2.7
Total	5.3	9.5	7.0	8.0	2.2

Information on economic sector is outlined in Table 7. From this it would appear that, at this broad level, the risk of being bullied is highest in Public Administration/Defence (12.6 per cent); Education (12.1 per cent) and Health/Social Work (10.5%). Lower levels are reported in the Transport/Communications; Distributive Services (Wholesale/Retail) and Construction sectors. It should be noted that this pattern is closely related to the differential distribution of educational attainment by economic sector. We have already seen (Table 4) that level of educational attainment is inversely related to reported bullying victimisation. The Distributive Services and Construction sectors have the highest concentration of persons with lower levels of attainment, and the risk of bullying is lowest in these sectors.

There are quite substantial gender differences in risk levels by sector. For example, women in the Construction; Business Services and Transport & Communications sectors experience three times the risk of being bullied at work as compared with their male counterparts.

Table 8, showing the incidence of bullying by size of establishment in which the victim works, indicates a clear relationship between establishment size and bullying

victimisation. The risk of bullying increased from 3.2% of employees in the smallest size category of less than 4 employees to 10.3% in the largest category with 100 or more persons employed.

Table 8: Incidence of Bullying by Size of Firm

	Men	Women	All
<i>No. of employees in branch or outlet</i>	%	%	%
1 – 4	2.3	5.4	3.2
5 – 25	5.3	9.6	7.2
26 – 99	6.6	8.0	7.3
100+	7.8	13.6	10.3
Total	5.3	9.5	7.0

Table 9 looks at the relationship between various aspects of organisational change and bullying. Respondents were asked a series of questions regarding major organisational changes in the firm in which they worked in the 12 months preceding the survey. The questions included the appointment of a new manager or supervisor, change in the ownership of the enterprise, re-organisation of the company, and the introduction of new technology. The incidence of bullying was twice as high among those who reported the appointment of a new manager or supervisor in the twelve months preceding the survey as those who did not: 11.7% of those who had experienced a new manager reported bullying, compared to 5.4% of those who had not experienced such a change. Change in the ownership of the company had a similar effect, with 12.2% of those where ownership had changed reporting bullying, compared to 6.7% of those working in enterprises where there had been no such change. Corporate organisation had a very similar effect. It should be noted that there are high inter-correlations between these three aspects of organisational change.

Table 9: Incidence of Bullying by Indicator of Organisational Change in Preceding 12 months

	Men	Women	All
<i>Type of change</i>	%	%	%
<i>New manager/supervisor?</i>			
Yes	9.1	14.9	11.7
No	4.1	7.3	5.4
<i>Change in ownership?</i>			
Yes	10.5	14.9	12.2
No	5.0	9.2	6.7
<i>Re-organisation of company?</i>			
Yes	10.2	13.9	11.7
No	4.1	8.3	5.8
<i>Introduction of new technology?</i>			
Yes	9.0	11.0	9.8
No	3.6	8.8	5.7

The risk of being bullied is also higher among workers who have experienced the introduction of new technology or a new computer system. Almost 10% of workers who reported the introduction of new technology also reported bullying, compared to 5.7% among those who did not experience technological change. The magnitude of the effect of new technology would appear, however, to be rather weaker than that of changes in management or corporate structures. It should also be noted that the relationship between the introduction of new technology and bullying is stronger among men than women: the risk of being bullied was 2.5 times higher among men who work in companies which have recently introduced new technology as compared with those who have not. The corresponding risk factor among women is only 1.25. So our data would suggest that there is a substantial impact of organisational change on the risk of being bullied, and this pattern is common to both men and women. The effect of technological change is also evident, although this effect is more muted than the effects of management and corporate change.

Multivariate Modelling of Victimisation

Up to this point we have looked at the incidence of bullying in different sub-groups of the population and in different work settings. While this bivariate approach provides essential descriptive information about who is at greatest risk of bullying, and in which work settings and organisations bullying is more prevalent, it does not allow us to assess the separate effects of different factors. For example, we have shown that women are more likely to experience bullying than men, and that workers in Public Administration have comparatively high rates of bullying. However, we cannot tell from these bivariate relationships whether the high incidence of bullying is a characteristic of the Public Administration sector *per se*, or to the relatively high proportion of women working in the sector, or indeed, to some additional factor. In order to disentangle the separate effects of a series of potentially influential factors it is necessary to move to a multivariate methodology within which we can control for the effect of each variable when assessing the effect of another.

The analysis consists of a series of conventional logistic regression models of bullying as a function of the characteristics of individuals. The dependent variable in each of these equations is a dichotomous variable coded 1 if respondents indicated that they had been bullied either currently or at some point in the past six months. We are thus using the same measure of bullying as in the descriptive analysis presented above.

We start in Table 10 with an analysis of the impact of personal characteristics on the probability of experiencing bullying. Equation (1) refers to the full sample and shows the effects of being self-employed (versus an employees), gender, education, social class and membership of a minority group on the chances of being bullied. We report the exponent of the logistic regression coefficient, which can be interpreted as a simple probability. Thus, the effect of being self-employed (.29), which is highly statistically significant ($p < .001$), indicates that the probability of a self-employed person being bullied is less than one-third the probability of an employee – or that employees are about three times more likely to be bullied than the self employed. This mirrors the findings shown in Table 2, but the multivariate framework has the advantage of allowing us to identify the impact of employment status while

simultaneously taking account of other, potentially influential variables, including gender and age, etc..

Table 10: Logistic Model of Bullying Victimization – Individual Characteristics

Equation:	1	2	3	4	5
	<i>Any Bullying</i>				<i>Frequent Bullying</i>
	All	Men	Women	Employees	
	Exp(B)	Exp(B)	Exp(B)	Exp(B)	Exp(B)
Self Employed	.29 ***	.31 ***	.28 **		.26 ***
Female	1.38 **			1.41 **	1.24
<i>Age-Group</i>					
<i>(Ref. Cat.: Age less than 25)</i>					
Age 26-35	1.40 ~	1.65	1.43	1.43 *	1.39
Age 36-45	1.41 ~	1.67 ~	1.29	1.45 *	1.46 ~
Age 46-55	1.12	1.42	.97	1.16	1.12
Age 56+	.74	.85	.72	.68	.66
<i>Education</i>					
<i>(Ref. Cat.: Lower Secondary or less)</i>					
Upper Secondary	.97	1.31	.70	.53	.98
Tertiary	1.46 *	1.96 **	1.04	1.28	1.29
<i>Social Class</i>					
<i>(Ref. Cat.: Other Non-manual)</i>					
Higher Professional	.97	.68	1.27	1.02	.89
Lower Professional	1.11	.79	1.34	1.24	1.09
Skilled Manual	.92	.91	.54	.99	.81
Semi-skilled Manual	.94	.97	.87	.94	1.06
Unskilled Manual	1.10	1.41	.67	1.07	1.10
Minority Group member	1.66 *	1.96 *	1.53	1.57 ~	1.53
N of cases	5192	2742	2450	4218	5192
-2 Log Likelihood (intercept only)	2621.15	1140.47	1456.83	2364.18	1790.19
-2 Log likelihood (final)	2518.74	1092.33	1414.61	2318.90	1732.46
Nagelkerke R ²	.05	.05	.04	.03	.04
~ p < .10, * p < .05, ** p < .01, *** p < .001					

We have already seen a greater incidence of bullying among women. Equation (1) indicates that this effects remains when we take account of the other variables in the model. The size of the coefficient suggests that the odds of a woman being bullied are 38% greater than those of a man, other things being equal. We can also see that those aged between 26-45 years are more likely to experience bullying than those aged less than 25 year (the reference category) although these effects are significant only at the 10% level. The victimisation rate among those aged over 46 is not different from the youngest age group. Those with tertiary education are more likely to experience bullying than those with lower secondary education, when other factors are taken account of, reflecting the higher incidence among this group shown in Table 4 above. We can examine below whether this is an effect of education *per se*, or whether it is has something to do with the kinds of work settings in which those with higher education tend to be concentrated.

Social class has no impact on the probability of being bullied, confirming the analysis in the descriptive tables that bullying is pervasive across all social classes. Finally, those who reported that they considered themselves to be members of a minority group were 66% more likely to experience bullying than those who did not.

Given the strong relationship between gender and bullying, we estimate separate models for men and women (Equations 2 and 3). The effect of self-employment is roughly comparable for both men and women. However the effects of both tertiary education and membership of a minority group achieve significance only among males. So males with higher education, and those who regard themselves as members of a minority group are almost twice as likely to be victimised as men for whom these conditions do not hold. However, while women suffer a generally higher rate of bullying than men, there is no statistically significant additional impact of either tertiary education or minority group membership.

Given the higher rate of victimisation among employees, compared to the self-employed, Equation 4 confines the analysis to employees only. In general the results confirm the effects found for the full sample. Women experience a higher rate of bullying than men, those in the 26-45 year age group are more likely than those aged under 25 to be bullied, and members of minority groups are more likely to be bullied. However, when we confine the analysis to employees only, the effect of tertiary education is reduced to non-significance. This finding, combined with the results of Equations (2) and (3) suggesting that the higher incidence of bullying among those with tertiary education mainly occurs among self-employed men.

In the final equation (5) we shift our attention to ‘frequent bullying’ which we define as bullying occurring in the last six months with a frequency of several times per month, or more. The operationalisation omits bullying if the respondent indicates that it has occurred “only occasionally” and the intention is to generate a model to investigate whether there is something distinctive about individuals who are bullied on a frequent basis. With the exception of the effects of self-employment, and being in the 36-45 year age group, none of the other variables in the model achieve statistical significance. This suggests that neither gender, education, nor minority group membership, are significant risk factors influencing frequent bullying victimisation.

We turn next to the nature of jobs and organisational characteristics. Equation (6) in Table 11 confirms that the self-employed are less likely than employees to suffer bullying. Temporary and casual workers are more likely to be bullied than those with permanent contracts, but there is no difference between part-time and full-time workers. Neither is there any difference between the private and public sector. The Construction sector shows a lower incidence of bullying than Traditional Manufacturing, the reference category, while workers in Education are 66% more likely to be victims of bullying. Bullying appears to be higher in establishments with 5-25 employees, and in those with 100 or more employees, compared to those with less than 4 employees, although the other size category, 26-99 employees, is not influential. Finally, union members are almost 40% more likely than non-members to report that they have been bullied. This effect of union membership is counterintuitive. However, given the subjective nature of the operationalisation of bullying, this effect may be due to greater awareness of the issue of bullying and

lower tolerance for inappropriate treatment on the part of union members. It could also be related to larger and more complex types of organisations in which union members are more likely to work.

**Table 11: Logistic Model of Bullying Victimization
– Job and Organisational Characteristics**

Equation:	6	7	8	9
	All	Any Bullying All	Employees	Frequent Bullying
	Exp(B)	Exp(B)	Exp(B)	Exp(B)
Self-employed	0.50 ***	0.37 **		0.39 *
Temporary	1.43 *	1.30	1.28	1.53 ~
Casual	2.03 *	1.45	1.52	1.68
Part-time	1.06	1.20	1.20	1.24
Public Sector	0.83	0.84	0.87	0.66 ~
<i>Economic Sector</i>				
<i>(Ref. Cat: Traditional Manufacturing)</i>				
Agriculture	0.39	0.45	0.56	0.70
Hi-tech Manufacturing	0.97	0.90	0.93	1.11
Construction	0.40 *	0.58	0.67	1.00
Distribution	0.74	0.91	0.93	1.34
Business Services	0.97	1.05	0.93	1.54
Transport/Communication	0.71	0.49 *	0.49 ~	1.00
Finance	1.18	1.04	1.10	1.38
Personal Services	0.71	0.74	0.78	0.93
Public Administration	1.58	1.82 ~	1.78 ~	1.65
Education	1.66 ~	2.18 **	2.10 *	2.71 *
Health	1.24	1.42	1.38	1.91 ~
<i>Firm Size</i>				
<i>Ref. Cat.: Less than 5 employees</i>				
5 to 25 Employees	1.52 *	1.55 ~	1.59 ~	1.64
26 to 99 Employees	1.32	1.12	1.17	0.95
100+ Employees	1.92 **	1.52 ~	1.58 ~	1.36
Union Member	1.39 *	1.13	1.13	1.38 ~
New Management		1.50 **	1.48 **	1.68 **
New Owner		1.18	1.15	1.18
Corporate Reorganisation		1.19	1.14	0.92
New Technology		1.05	1.05	1.21
Bad Staff-Mgt Relations		2.41 ***	2.37 ***	3.11 ***
Good Staff-Mgt Relations		0.41 ***	0.40 ***	0.53 **
Bad Inter-staff Relations		2.20 **	2.24 **	2.33 *
Good Inter-staff Relations		0.67 **	0.67 *	0.53 **
N of Cases	5004	4864	4012	4864
-2 Log Likelihood (intercept)	2545.14	2349.47	2153.01	1585.40
-2 Log likelihood (final)	2420.21	2022.84	1891.69	13598.40
Nagelkerke R ²	0.06	0.17	0.15	0.16
~ p < .10, * p < .05, ** p < .01, *** p < .001				

Equation (7) adds a series of variables related to the organisations in which people work. Workers who have experienced the appointment of a new manager or supervisor have a 50% higher risk of victimisation than those who have not. However, neither new ownership, nor corporate re-organisation, nor the introduction of new technology has any significant impact on the probability of experiencing bullying, when other factors are taken account of. This result differs from the bivariate analyses, which suggested that each of these organisational changes was associated with an increase in bullying (Table 9).

Respondents were also asked about the relationships between staff and management, and between different staff members at their place of work. From the responses to these questions we constructed two sets of variables distinguishing: (1) between those who responded that staff-management relationships were either “bad” or “very bad”, versus those who considered them to be “good” or “very good”, with a reference category of “Neither good nor bad”; and (2) between those who responded that relationships between staff members were either “bad “ or “very bad”, versus those who considered that relationships were either “good” or “very good”. Equation (7) shows that those who responded that staff-management relationships were either bad or very bad were 2.4 times are likely to be bullied than those who reported that these relationships were neither good nor bad. Those who reported bad intra-staff relationships were 2.2 times more likely to be bullied than those who responded that these relationships were neither good nor bad. In contrast, those who reported good staff-management relationships were about 60% less likely to be bullied than those in the neutral reference category, while those reporting good intra-staff relationships were about one-third less likely to be bullied than those in the neutral category.

The inclusion of these additional organisational variables reduced the effects of temporary and casual working to non-significance and had a similar effect on union membership. It might be argued that the specification of these additional organisational variables to capture qualitative aspects of workplace social relations poses issues of causality. Given that the measurement of both these organisational variables and bullying victimisation are both retrospective, it is conceivable that the experience of bullying could influence respondents’ subjective assessments of the quality of relationships between co-workers and between staff and management. However, it is noteworthy that not only did poor staff-management and inter-staff relationships have a positive influence on bullying victimisation, as might be expected, but also that positive such relationships had a *negative* impact on the probability of being bullied.

Equation (8) confines the analysis to employees only. This shows a very similar pattern of effects to Equation (7) for the entire sample. Finally, Equation (9) is an analysis of the correlates of frequent bullying. The pattern of effects is very similar to that for any bullying (Equation (8)), although it is notable that the effects of bad-staff management relationships are particularly strong. Those who reported bad staff-management relationships were more than 3 times more likely to be bullied than those in the neutral reference category.

**Table 12: Logistic Model of Bullying Victimization
Combining Individual with Job and Organisational Characteristics**

	Equation:		
	10	11	12
	<i>Any Bullying</i>		<i>Frequent Bullying</i>
	<i>All</i>	<i>Employees</i>	
	Exp(B)	Exp(B)	Exp(B)
Female	1.40 *	1.46 **	1.30
Age 26 - 35	1.18	1.17	1.07
Age 36 - 45	1.33 ~	1.32 ~	1.34
Tertiary Education	1.27 ~	1.21	1.10
Minority Group Member	1.43	1.36	1.31
Self-employed	0.35 **		0.35 *
Temporary	1.28	1.26	1.50 ~
Casual	1.46	1.55	1.70
Public Sector	0.84	0.88	0.66 ~
Construction	0.70	0.81	0.88
Transport/ Communications	0.58 ~	0.57 ~	0.88
Public Administration	1.77 *	1.72 *	1.28
Education	2.00 **	1.95 **	2.13 *
Health	1.24	1.18	1.35
5 to 25 Employees	1.56 ~	1.60 ~	1.66 ~
26 to 99 Employees	1.14	1.17	0.91
100+ Employees	1.56 ~	1.60 ~	1.34
Union Member	1.19	1.19	1.40 ~
New Management	1.62 ***	1.57 ***	1.77 ***
Bad Staff-Mgt Relations	2.58 ***	2.50 ***	3.24 ***
Good Staff-Mgt Relations	0.43 ***	0.41 ***	0.57 **
Bad Inter-staff Relations	2.25 **	2.25 **	2.39 ***
Good Inter-staff Relations	0.67 *	0.66 *	0.53 **
N of Cases	4949	4069	4949
-2 Log Likelihood (intercept only)	2387.57	2182.00	1598.47
-2 Log likelihood (final)	2049.23	1904.91	1369.25
Nagelkerke R ²	0.17	0.16	0.16

~ p < .10, * p < .05, ** p < .01, *** p < .001

Having developed models for the individual and job or organisational correlates of bullying victimisation, we turn in Table 12 to combining the two sets of factors. Given the large number of variables in the two sets of models, our general strategy is to include only those variables which have been statistically significant, or close to achieving statistical significance, in the earlier models. Equation (10) is the combined model for the full sample, including employees and the self-employed. Gender remains influential: women are about 40% more likely to experience bullying than their male colleagues when all other relevant characteristics are controlled for. Those in the 26-45 year age group are more likely than either younger or older age groups to experience bullying. The effect of tertiary education remains positive, albeit at a marginal level of statistical significance, in the final model. The self-employed are about 65% less likely than employees to be bullied. Workers in Education are twice as

likely as those in other sectors to experience bullying, and those in Public Administration almost 80% more likely. Size of establishment remains important, with those in establishments with either 5 to 25 employees, or 100 or more employees more likely to experience bullying than those in establishments with less than 4 employees.

The effects of both staff-management and intra-staff relationships remain robust in the final model: bad staff-management or intra-staff relationships substantially increase the probability of being bullied. So also does the appointment of a new manager. Union membership has no impact on the probability of being bullied in the final model. Equation (11) confines the final model to employees only, and the pattern of effects remains very similar to the model for the full equation, although as before, the effect of tertiary education is reduced to non-significance.

Equation (12) applies the final model to frequent bullying. In general, the pattern of effects in this model is very similar to that in respect of any incidence of bullying. However, as in Equation (5), gender has no statistically significant impact on frequent bullying, neither does age. Indeed, in our final model of frequent bullying, the effects of all personal characteristics, including gender, age and education, are eliminated by the inclusion of job-related and organisational characteristics.

Conclusions

There is growing awareness that bullying in the workplace represents a major problem, with serious implications for the well-being of workers and for the performance of organisations. Nonetheless, information on the incidence and nature of bullying in Ireland has, up to now, been very limited. This paper reports the results of the first nationally representative study of the incidence of bullying in Ireland. The study is based on a survey of a sample of over 5,200 individuals in paid employment outside the home in late 2000, early 2001.

We found that, overall, 7% of persons in the work-place report that they experienced bullying in the 6 months preceding the survey. Almost 3% of those at work report that they experienced bullying either daily or several times per week during the reference period, and 4.8% were bullied several times per month or more frequently.

Bullying victimisation is far more common among employees (7.9%) than among the self-employed (2.3%). The incidence of bullying among employees in Ireland can be compared with findings from similar studies in Britain, where the rate was 10.6% in the previous 6 months (Hoel and Cooper, 2000), and in Norway, where the corresponding incidence was 8.6% (Einarsen and Skogstad, 1996).

Women are more likely to report that they have been the victims of bullying in the workplace than men: 9.5% of all women reported that they had experienced bullying, compared to 5.3% of men. The incidence of bullying is highest in the 26-45 year age group, and declines somewhat thereafter with age.

We found that the incidence of bullying victimisation increases with educational attainment, so those with third-level qualifications experienced the highest rate of bullying (8.9%) compared with a rate of 5.4% among those who had attained lower secondary education. This positive relationship between education and bullying victimisation may be partially due to differing expectations regarding acceptable standards of behaviour, in the workplace, and partially due to the size and nature of organisations in which people with higher levels of education tend to work. In contrast to the findings in relation to education, we found no evidence to suggest that the risk of bullying is confined to any particular social class: bullying appears to be a pervasive problem across the entire social spectrum.

Turning to the characteristics of the organisations in which people work, we found that the risk of being bullied is highest in Public Administration and Defence, Education and Health and Social Work. The pattern of bullying is closely related to the differential distribution of education by economic sector. The Distributive Services and Construction sectors have the lowest reported incidence of bullying, and these sectors are also characterised by the highest concentration of workers with lower levels of educational attainment. We also found, as expected, that the incidence of bullying increases by firm size. The risk of bullying increases from 3% of employees in the smallest size category of less than 4 employees to 10% in the largest category with 100 or more persons employed.

Workplace change also had an important influence on bullying victimisation. The incidence of bullying was twice as high among those who reported the appointment of a new manager or supervisor in the twelve months preceding the survey as those who did not. Changes in the ownership of the company and corporate re-organisation also had similar effects. The risk of being bullied is also higher among workers who have experienced the introduction of new technology or a new computer system, although the magnitude of the effect of new technology was rather weaker than that of changes in management or corporate structures.

In our multivariate analyses of the correlates of bullying victimisation, we distinguished between the personal attributes of individuals and the organisational characteristics of their workplaces. When we confined the analysis to personal attributes, we found that the probability of a woman being bullied is about 38% greater than that of a man, controlling for other relevant personal characteristics. Those aged between 26-45 are more likely to experience bullying than those in other age groups, and those with third-level education are more likely to experience bullying than those with lower levels of education. Further analysis by sub-populations suggested that the effect of third level education is confined to male employees; male employees with third level education are more likely to be bullied than male employees with lower levels of education. Women with similar levels of education are not at increased risk, and education has no impact on the likelihood of being bullied among the self-employed. Social class has no impact on the probability of being bullied, but those who considered themselves to members of minority groups are at greater risk of experiencing bullying.

When we confined the analysis to the incidence of frequent bullying, which we defined as bullying that took place with a frequency of at least several times per month, we found that, by and large, there is little evidence of any systematic

relationship between personal attributes and victimisation. The effect of self-employment remains negative and statistically significant, and those in the 36-45 year age group experience greater bullying, although this effect is at the margins of statistical significance. Otherwise, however, the risk of frequent bullying victimisation appears to be randomly distributed across the range of personal characteristics specified in the model. The model would therefore appear to provide no support for 'blaming the victim' of frequent bullying.

In general, our models of the job or organisational correlates of bullying provide a better fit to the data. We found that a number of key variables influence the risk of being bullied. First, those who reported poor relations between staff and management, or among staff, were substantially more likely to have experienced bullying, while those who reported good hierarchical or intra-staff relations were substantially less likely to have experienced bullying. Second, workers who had experienced the appointment of a new manager or supervisor were at greater risk of bullying, however, neither new ownership, nor corporate re-organisation, nor the introduction of new technology had a statistically significant impact on the probability of experiencing bullying. Third, bullying victimisation was found to be substantially higher in education and public administration, and much lower in transport and communications sectors, than in traditional manufacturing. Finally, bullying appears to be higher in establishments with 5-25 employees, and in those with more than 100 or more employees, compared with small establishments with less than 5 employees.

In our final models we combined the two sets of factors: individual attributes and job or organisational characteristics. These joint models show that, with the notable exception of gender, and possibly, to some extent, of age and education, the main influences determining bullying victimisation relate to features of the organisations which people work, in particular the quality of hierarchical and intra-staff relations, appointment of new management, establishment size and economic sector. Moreover, the model of frequent bullying confirms that the determinants of bullying relate not to the characteristics of the victim but to the nature and organisation of the workplace. This is an important finding, not least because it suggests that, if the principal drivers of bullying are organisational in nature, then appropriate workplace practices and policies can be developed to reduce, if not eliminate, the problem.

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