

Language and Occupational Status: Linguistic Elitism in the Irish Labour Market*

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Abstract: This paper, using data from the 2006 Irish Census, provides evidence of the structural advantage of Irish speaking, relative to non-speaking workers in Ireland's labour market with advantage and disadvantage being defined in terms of occupational outcomes. To the best of our knowledge there has been no systematic investigation of any advantage enjoyed by Irish speakers in Ireland and allegations of the comfortable middle class ambience of the *Gaelscoileanna* have remained at the level of anecdote. Since linguistic elitism is a feature of many societies and since Irish enjoys the constitutional status of the national and first official language of Ireland, such an investigation was, arguably, overdue. This is then compared to the structural advantage of Irish speaking workers in Northern Ireland and of Welsh speaking workers in Wales. Our conclusion is that after controlling for as many relevant factors as the data permitted, a considerable part of the difference between Irish speakers and non-speakers in Ireland, in their proportionate presence in the upper reaches of occupational class, was due to structural advantage. The major contribution of this paper is to lift the debate about the economic position of Irish speakers in Ireland above the level of hearsay: *dúirt bean liom go ndúirt bean léi.*

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“Is there any point to which you would wish to draw my attention?”

“To the curious incident of the dog in the night-time.”

“The dog did nothing in the night-time.”

“That was the curious incident,” remarked Sherlock Holmes.

Arthur Conan Doyle, *Silver Blaze*

I INTRODUCTION

The curious incident about Irish speakers in Ireland is that although many of them never speak Irish – and, of those that do, only a few speak it with any regularity – they have considerable advantage in the labour market. This paper is about the structural advantage – the advantage that remains *after* accounting for relevant employment related factors like educational qualifications – that Irish speaking workers enjoy over workers who are not able to speak Irish. This advantage is then compared to that of Irish speaking workers in Northern Ireland and of Welsh speaking workers in Wales.

There are two aspects to structural advantage in the labour market. The first is whether differences in the remuneration to different persons fully reflect disparities in their productivity or whether such differences are wholly, or in part, the result of “earnings discrimination”. Oaxaca (1973), in his pioneering study of male-female wage differentials, developed a methodology for answering this question.

The second aspect relates to the differential chances of persons from different groups attaining a particular occupational status. Here the concern is whether the different degrees of success, with which persons from different groups attain a particular status, are justified by inter-group differences in worker attributes or whether they are the result of “occupational discrimination”. It is this aspect which is the focus of the paper.

The class of jobs we examine are those that are described as “professional, managerial, or technical” (PMT jobs) and having such a job, in contrast to having a job outside this occupational class (non-PMT jobs), is regarded in this paper as “occupational success”. By structural advantage in terms of occupational outcomes we mean that, *after controlling for a range of labour market attributes*, workers from one group have a better chance of attaining PMT jobs (i.e. occupational success) than those from another group.

Although the existence, and degree of, occupational discrimination has been investigated for *inter alia* the USA (Schmidt and Strauss, 1975), Great Britain (Blackaby *et al.*, 1997 and Borooah, 2001), and Australia (Borooah and Mangan, 2007), to the best of our knowledge this has not been investigated for Ireland. As Arrow (1998) has observed, although the issue of occupational

discrimination is more important than that of earnings discrimination – in the sense of occurring more frequently in the real world – it is also the more neglected. As Higgs (1977) and Whately and Wright (1994) have argued in the context of the US labour market, black and white wages for the same job rarely differed by much; instead, discrimination took the form of restricting the range of jobs to which black persons were hired. Similarly, in Northern Ireland, discrimination against Catholics took the form of excluding them from jobs (for example, in the shipyards) rather than paying Catholic workers less than Protestants (Borooah, 1999).

Examining the labour market advantage of Irish speakers in Ireland is slightly contentious. At a populist level, it has been claimed that “... students in Irish schools doing their exams through Irish enjoy positive discrimination, with an advantage in the Leaving Cert[ificate] of up to 10 per cent of their original result, and that puts children in English-speaking schools, from English-speaking and immigrant families, at a disadvantage”. Furthermore, smaller classes mean that “... every year, the Leaving Cert[ificate] students with the most As come largely from Irish-speaking schools” with the consequence that “... students from Irish-speaking schools are more likely to get on the university course of their choice”.¹ Needless to say, such claims are promptly rubbished by others: rather than Irish-speaking schools (*Gaelscoileanna*) being bastions of middle class privilege, many of them are to be found in working class areas; the extra points system is not as generous as it appears and, in any event, they are awarded to compensate for a paucity of learning materials in Irish.²

II THE BACKGROUND

The data on which this study is based are from a 5 per cent sample from the *2006 Irish Census* and a 3 per cent sample from the *2001 UK Census*, referred to as the *Sample of Anonymised Records* and, hereafter, as SARS06 and SARS01 respectively.³ The SARS06 asked all its respondents, aged 3 years or more: “Can you speak Irish?” If the answer was “yes”, the respondent was then asked if he/she spoke it: (i) daily, within the educational system; (ii) daily, outside the educational system; (iii) weekly; (iv) less often (than weekly); (v) never.

¹ Kate Holmquist, “Language of educational apartheid”, *Irish Times*, 9 December 2009.

² Muireann Ní Mhóráin, “Apartheid’ slur on Gaelscoileanna not based on facts”, *Irish Times*, 18 December 2008.

³ Census Enquiries Section, Central Statistics Office, Swords, Co. Dublin, Ireland (www.cso.ie) and Centre for Census and Survey Research, University of Manchester (www.ccsr.ac.uk).

According to the answers to this set of questions, of the 197,862 persons in the Irish sample, 82,858 (42 per cent) said they could speak Irish and, hereafter, are referred to as “Irish speakers”.⁴ Of these 82,858 Irish speakers, 26,919 (32 per cent of speakers) said they spoke it daily and, of these daily speakers, 22,810 (85 per cent of daily speakers) only spoke it within the educational system with 4,109 (15 per cent of daily speakers) speaking it outside the educational system; of the 55,939 Irish speakers who did not speak Irish on a daily basis, 20,622 *never* spoke it and 29,218 spoke it less often than once weekly.

Consequently, if one regards a “living language” as one which is used daily, in a non-institutional setting, then Irish is a living language for less than one in twenty of Irish speakers in Ireland and a living language for one in forty of Ireland’s population.⁵ On the face of it, therefore, an inability to speak Irish should not be a significant barrier to living and working in Ireland in the way that, say, an inability to speak Urdu might be in Pakistan. Nevertheless, the evidence is that, on several counts, Irish speakers are considerably better off than those who cannot speak the language.

For Northern Ireland, SARS01 showed that of the 52,416 respondents, 90 per cent had *no* knowledge of Irish while 10 per cent (5,181 respondents) had *some* knowledge of Irish in that they could do one or more of the following: reading/writing/speaking/understanding Irish; 94 per cent of those who had some knowledge of Irish were Catholic.⁶ The SARS01 questions relating to language were much more detailed for Scotland and Wales, with separate questions for ability to read, write, speak, and understand Gaelic and Welsh. Of the 163,071 Scottish respondents, only 1.1 and 1.5 per cent could, respectively, speak and understand Gaelic; however, of the 89,817 Welsh respondents, 20 and 23 per cent could, respectively, speak and understand Welsh. Given the small numbers of Gaelic speakers in Scotland, the remainder of the paper focuses on Irish speakers in Ireland and in Northern Ireland and on Welsh speakers in Wales.

Needless to say, the first problem in analysing “linguistic elitism” in Ireland is to obtain a meaningful definition of an “Irish speaker”. The Irish Census simply asked its respondents whether they spoke Irish and, if they did, the frequency with which they did so. The practice of the UK Census was simply to ask its Scottish and Welsh respondents whether they spoke Gaelic

⁴ If one restricted attention to persons (who regarded themselves) of Irish ethnicity, then of the 173,703 persons, 80,591 (46 per cent) were Irish speakers implying that nearly one in ten of the non-Irish part of the population was an Irish speaker in (2,267 out of 24,159 persons).

⁵ In terms of SARS06, respectively, 4,109 out of 82,858 and 4,109 out of 197,862.

⁶ The Northern Ireland question did not explicitly ask whether respondents could speak Irish.

or Welsh and its Northern Ireland respondents whether they had “some” knowledge of Irish. This study has identified as “speakers” all those who answered these questions in the affirmative.

It goes without saying that this masks a multitude of difficulties. First, since Irish is on the curriculum of most Irish schools, some people who claim to speak Irish may simply be recalling the Irish they learned and the more able may be recalling this with greater clarity. Consequently, positive responses to this question may measure ability rather than facility. Second, the frequency of speaking differed between speakers and one might infer fluency from frequency.⁷ In this paper we test for this effect by subdividing Irish speakers according to how often they spoke the language. But, ultimately, one is forced to take the answers at face value – if a person claims to speak Irish (the claim being made in English to a question posed in English!) then, in the absence of any evidence to the contrary, he must be presumed to be an Irish speaker.

Table 1 compares the socio-economic “achievements” of speakers and non-speakers of indigenous languages in Ireland, Northern Ireland, and Wales. In terms of *social class*, 42 per cent of Irish speakers in Ireland, but only 27 per

Table1: *Characteristics of Speakers and Non-Speakers of Irish and Welsh, by Country*

<i>Characteristic</i> ↓	<i>Percentage with Relevant Characteristic</i>					
	<i>Ireland</i>		<i>Northern Ireland</i>		<i>Wales</i>	
	<i>Speakers (Irish)</i>	<i>Non-speakers</i>	<i>Speakers (Irish)</i>	<i>Non-speakers</i>	<i>Speakers (Welsh)</i>	<i>Non-speakers</i>
PMT						
occupations	42	27	36	23	27	25
Unemployed	3	6	8	7	6	6
Permanently sick or disabled	3	5	11	12	10	13
Degree or higher	25	14	27	14	23	16
Primary or no qualifications	9	22	25	44	27	34
Owner-occupiers	82	70	74	74	73	74
Detached house	52	41	43	42	37	27
2 or more cars						
households	45	34	40	38	37	36

⁷ Though, even here, caution is needed: the first author speaks Hindi fluently (or so he fondly believes!) but prolonged residence outside India means that he rarely gets to speak it.

cent of Irish non-speakers, were in professional, managerial, and technical occupations and 12 per cent of Irish speakers in Ireland, but 19 per cent of Irish non-speakers, were in semi-skilled or unskilled occupations. In terms of *economic status*, 3 per cent of Irish speakers in Ireland, compared to 6 per cent of Irish non-speakers, were unemployed and 2 per cent of Irish speakers in Ireland, compared to 5 per cent of Irish non-speakers were unable to work due to permanent illness or disability. In terms of the *highest level of education*, 25 per cent of Irish speakers in Ireland, compared to 14 per cent of Irish non-speakers, had degree (or higher) level qualifications and just 9 per cent of Irish speakers in Ireland, in contrast to 22 per cent of Irish non-speakers, had just primary level (or no) qualifications.⁸

The results for occupational class and educational levels were not dissimilar for Northern Ireland: 36 per cent of those with some knowledge of Irish were in PMT occupations compared to 23 per cent of those with no knowledge of Irish; 27 per cent of those with some knowledge of Irish had a degree and 25 per cent had primary or no qualifications, compared to 23 and 44 per cent, respectively, of those with no knowledge of Irish. The differences for Wales were much less marked for occupational status – 27 per cent of Welsh speakers, compared to 25 per cent of non-speakers, were in PMT occupations – but were much more significant for educational achievements – 23 per cent of Welsh speakers had degrees and only 16 per cent had just primary (or no) qualifications, compared to 16 and 34 per cent, respectively, of non-speakers.

However, as this paper will show, *even after controlling for relevant labour market attributes*, Irish speakers in Ireland did better in the labour market compared to Irish non-speakers. In other words, *ceteris paribus* there is a bias in Ireland's labour market which favours Irish speakers over non-speakers.

⁸ These advantages spilled over from the labour market into other areas. In terms of *housing tenure*, 82 per cent of Irish speakers, compared to 70 per cent of Irish non-speakers, were owner-occupiers; in terms of *housing type*, 52 per cent of Irish speakers, compared to 41 per cent of Irish non-speakers, lived in a detached house and 13 per cent of Irish speakers, compared to 18 per cent of Irish non-speakers, lived in a terraced house; lastly, in terms of *heating*, 91 per cent of Irish speakers, compared to 86 per cent of Irish non-speakers, lived in houses which had central heating.

In terms of *car ownership*, 45 per cent of Irish speaking persons, compared to 34 per cent of Irish non-speaking households, lived in two-car households and, in terms of *computer ownership* and *web access*, 73 and 25 per cent of Irish speakers, owned a computer and had access to broadband, respectively, in contrast to, respectively, 58 and 21 per cent of Irish non-speakers.

III LOGIT AND ORDERED LOGIT MODELS OF LABOUR MARKET OUTCOMES IN IRELAND

The first logit model was estimated over the subset of persons from SARS06 *who were presently in work for payment or profit*; in this model, the dependent variable Y_i was such that $Y_i=1$, if a person ($i=1\dots N$) worked in a professional, managerial or technical (PMT) capacity, $Y_i=0$, if he/she was employed in another (non-PMT) capacity.⁹ The second logit model was estimated over the subset of persons from SARS06 *who were presently in the labour force*; in this model, the dependent variable Y_i was such that $Y_i=1$, if a person ($i=1\dots N$) was working, $Y_i=0$, if he/she was unemployed.

Both models were estimated on a vector of variables, X_{ij} being the value of the j^{th} variable for the i^{th} person ($j=1\dots J$).¹⁰ A natural question to ask from the logistic model is how the probability of a particular labour market outcome would *change* in response to a change in the value of one of the variables. These probabilities are termed *marginal probabilities*.

For discrete variables, the marginal probabilities refer to *changes* in the outcome probabilities consequent upon a move from the residual category for that variable to the category in question, *the values of the other variables remaining unchanged*. For continuous variables, the marginal probabilities refer to *changes* in the outcome probabilities consequent upon a unit change in the value of the variable, *the values of the other variables remaining unchanged*.

Table 2 shows the marginal probabilities for the “in work” equation and Table 2 shows the marginal probabilities for the “in labour force” equation. The associated z-values are shown alongside the marginal probabilities: a z value exceeding 1.96 indicates that the coefficient was significantly different from zero at a 5 per cent significance level. Table 2 shows that *ceteris paribus* the likelihood of a *female worker* being in a PMT job was 10.1 percentage points lower compared to the corresponding likelihood for a male worker while the likelihood of an *Irish speaking worker* being in a PMT job was 6.7 points higher compared to the corresponding likelihood for a worker who did not speak Irish.

Relative to Dublin, the probability of working in a PMT job was lower in all the other *regions* of Ireland and was smallest in the Border and Western regions (*ceteris paribus* 11.1 and 9.2 points, respectively, lower than Dublin). Compared to a non-Catholic worker, the likelihood of a *Catholic worker* being in a PMT job was 8.1 points lower and, compared to persons whose ethnicity

⁹ Non-manual, skilled manual, semi-skilled, unskilled, other.

¹⁰ The logit equation is $\frac{\Pr(Y_i = 1)}{1 - \Pr(Y_i = 1)} = \exp\left\{\sum_{j=1}^J X_{ij} \beta_j\right\} = \exp\{z_i\}$ for J coefficients, β_j and for observations on J variables.

Table 2: *Marginal Probabilities from Logit Model for Persons Currently in Work Being Professional, Managerial or Technical Workers*

	<i>Marginal Probability</i>	<i>z-value</i>	<i>Sample Average</i>
<i>Sex</i>			
Female	-0.101	-20.81	0.423
<i>Age Bands (Residual: 60+)</i>			
Age: 20-29	-0.198	-20.06	0.258
Age: 30-39	-0.094	-9.13	0.287
Age: 40-49	-0.085	-8.35	0.239
Age: 50-59	-0.056	-5.33	0.159
<i>Region (Residual: Dublin)</i>			
Border	-0.111	-14.86	0.108
Mideast	-0.041	-5.62	0.120
Midland	-0.062	-6.37	0.056
Midwest	-0.069	-8.25	0.083
Southeast	-0.077	-9.85	0.105
Southwest	-0.083	-12.20	0.143
West	-0.092	-11.76	0.097
<i>Religion (Residual: non-Catholic)</i>			
Catholic	-0.081	-10.50	0.881
<i>Area (Residual: Rural)</i>			
Urban	0.008	1.45	0.608
<i>Ethnicity</i>			
Irish	0.073	3.79	0.885
<i>Industry of Work (Residual: Agriculture)</i>			
Manufacturing	-0.153	-17.07	0.164
Construction and Transport	-0.291	-41.41	0.192
Commerce	-0.050	-4.99	0.325
Public Administration and Defence	-0.192	-21.93	0.062
Professional Services	0.080	6.93	0.203
<i>Highest Level of Education (Residual: Primary or below)</i>			
Third-level: degree and non-degree	0.596	76.33	0.425
Secondary-level: lower and upper	0.183	17.73	0.499
Never Married			
<i>Marital Status (Residual: Widowed)</i>			
Married	0.064	3.26	0.534
Separated or Divorced	-0.019	-0.90	0.051
<i>Nationality</i>			
Irish	0.097	5.19	0.885
<i>Country of Birth</i>			
Ireland	-0.042	-4.38	0.827
Irish speaker	0.067	13.77	0.412

Dependent variable is 1 if the person was a professional, managerial, or technical worker, 0 otherwise.

Number of observations: 68,106; Pseudo $R^2 = 0.250$.

was not Irish, the likelihood of workers of *Irish ethnicity* being in PMT jobs was 7.3 points higher. Workers who were *Irish nationals* were more likely (by 9.7 points) to be in PMT jobs compared to non-nationals but workers born in Ireland were less likely by 4.2 points, relative to foreign-born workers, to be in PMT jobs.

Relative to working in agriculture, the likelihood of working in PMT jobs was smaller in all the other *industrial sectors* (except professional services); this likelihood was smallest in construction and transport and in public administration and defence (*ceteris paribus* 29.1 and 19.2 points, respectively, lower than agriculture). As expected, the level of education had a large effect on the probability of working in a PMT job: compared to having a primary education, the likelihoods of workers with third level education and of workers with secondary education, being in PMT jobs were, respectively, 59.6 points and 18.3 points higher.

The marginal probabilities from the “labour force” equation (Table 3) echo many of the findings of the “in work” equation: the likelihood of Irish speakers being in work was 10 points higher than for non-speakers; relative to living in Dublin, the likelihood of being in work was lower in many of the regions; Catholics in the labour force were more likely to be unemployed compared to non-Catholics; relative to those in agriculture, people in manufacturing, construction and transport, commerce, and professional services were more likely to be unemployed; persons with a degree or with secondary educational qualifications were more likely to be in work compared to persons with primary educational (or no) qualifications. Some differences between the “in work” and “in labour force” equations were that the significant gender, nationality, and country of birth effects from the former set of estimates (Table 2) were not reproduced in the latter set (Table 3).

In order to guard against the possibility that the claim to be an Irish speaker covered a wide range of abilities, from the fluent to the barely articulate, we divided the category of Irish speakers into the following sub-categories: those who spoke Irish at least weekly and those who spoke it less frequently (including never!). When the equation shown in Table 2 was re-estimated with these two categories of Irish speakers, the marginal probability of being in a PMT job *was higher for frequent speakers of Irish* than for non-frequent speakers (0.12 against 0.06); both marginal probabilities were significantly different from zero with z-values of 12.0. When, however, the labour force equation (Table 3) was similarly re-estimated, only the marginal probability associated with less frequent speakers of Irish was significantly different from zero (and positive).¹¹

¹¹ For reasons of economy, these results are not detailed in the paper; they may, however, be obtained on request from the corresponding author.

Table 3: *Marginal Probabilities from Logit Model for Persons Currently in Work or Unemployed*

	<i>Marginal Probability</i>	<i>z-value</i>	<i>Sample Average</i>
Female	0.001	0.95	0.420
Age: 20-29	0.004	1.41	0.259
Age: 30-39	0.001	0.52	0.285
Age: 40-49	-0.006	-1.94	0.239
Age: 50-59	-0.015	-3.97	0.161
Border	-0.019	-6.26	0.110
Mideast	-0.001	-0.34	0.119
Midland	-0.006	-1.94	0.056
Midwest	-0.010	-3.40	0.083
Southeast	-0.016	-5.48	0.107
Southwest	-0.005	-2.39	0.143
West	-0.009	-3.10	0.097
Catholic	0.012	5.15	0.879
Urban	-0.005	-3.44	0.608
Irish ethnicity	0.001	0.12	0.885
Manufacturing	-0.040	-6.72	0.167
Construction and Transport	-0.027	-5.50	0.194
Commerce	-0.025	-5.95	0.325
Public Administration and Defence	0.003	0.82	0.061
Professional Services	-0.015	-3.28	0.200
Third-level: degree and non-degree	0.042	20.82	0.417
Secondary-level: lower and upper	0.024	13.14	0.502
Never Married	-0.019	-3.22	0.406
Married	0.008	1.58	0.528
Separated or Divorced	-0.023	-2.70	0.053
Irish Nationality	-0.005	-0.99	0.884
Ireland Born	0.004	1.40	0.827
Irish Speaker	0.010	7.26	0.406

Dependent variable is 1 if the person was in work, 0 if unemployed.

Number of observations: 70,874; Pseudo $R^2 = 0.0643$.

Lastly, to guard against the possibility that the PMT/non-PMT dichotomy was excessively blunt, we also estimated an *ordered logit* model for persons in work in which the dependent variable, Y_i was such that: $Y_i=1$, for a professional worker, $Y_i=2$, for a managerial or technical worker, $Y_i=3$, for a non-manual worker, $Y_i=4$, for a skilled manual worker, and $Y_i=5$, for a semi-skilled or unskilled worker. This “in work” ordered logit model was estimated on the same set of determining variables as for the “in work” logit model (Table 2). These results refined, but did not alter the conclusions of the dichotomous model: *inter alia* workers who could not speak Irish were *ceteris paribus* less

likely to be in professional jobs or in managerial/technical jobs and were more likely to be at the non-manual and manual end of the class spectrum.¹²

IV THE ADVANTAGE OF BEING AN IRISH SPEAKER

The econometric results reported in the previous section clearly point to the advantage that Irish speakers have over non-speakers in Ireland's labour market: even after controlling for a number of attributes, the likelihood of an Irish speaking worker being in the upper echelons of social class were significantly higher, and the likelihood of an Irish speaker in the labour force being unemployed were considerably lower, compared to the relevant probabilities for non-speakers. The question is from where does this advantage derive?

One possibility is the quality of education. The Irish language movement has attracted a small but strong wave of strong urban middle/professional class support in recent decades, especially since the 1970s. Up until then, the language existed mainly within a small number of Irish language areas which were confined to poor, rural parts of the west coast, with a small core of educated urban activists, many of them connected in one way or another with education or the public sector. However, a major focus of the urban movement has been a push for schools that operate through the Irish language.

That this push has been highly successful is evidenced by the fact that in 1972, outside the Irish-speaking areas, there were 11 such schools at primary level and five at secondary level. Today there are 138 at primary level¹³ and 53 at secondary level.¹⁴

These schools have developed good academic reputations. They attract good teachers and a leadership core of committed parents and that attracts a wider circle of families that are drawn by good examination performance. The result is a system of positive social selection into Irish language schools which feeds through into occupational attainment.¹⁵

¹² In an ordered logit model, a person's classification in terms of his/her social class depends upon whether the value of an unobservable latent variable crosses a threshold such that the probabilities of a person being in a particular class are:

$$\Pr(Y_i = 1) = \Pr(\varepsilon_i \leq \delta_1 - Z_i); \Pr(Y_i = 2) = \Pr(\delta_1 - Z_i \leq \varepsilon_i < \delta_2 - Z_i) \text{ etc.}$$

If it is assumed that the error term follows a logistic distribution then an *ordered logit* model results. Detailed results available on request from the authors.

¹³ [http://www.schooldays.ie/primary-schools-in-ireland/primary-gaelscoil](http://www schooldays.ie/primary-schools-in-ireland/primary-gaelscoil)

¹⁴ <http://www.schooldays.ie/secondary-schools-in-ireland/Gaelscoil>

¹⁵ The results can be seen among students at University College Dublin: the *Cumann Gaelach* (Irish language society) is one of the strongest student societies (over 1,000 members last year) and its board is dominated by students from the high-achieving areas of study (law, medicine, architecture, etc.).

Our analysis of “feeder” schools in Ireland (that is, schools supplying students to third level educational institutions) shows that 53 schools, of a total of 707 feeder schools sent *all* their students to third level institutions (7 per cent), compared to the 10 of the 46 *Gaelscoils* (22 per cent) who also did the same.

An illustration of the quality of Irish-language schools is provided by an independent report, commissioned by a *Gaelscoil* in Kerry, analysing its pupils’ scores in English reading ability in MICRA-T tests. This report concluded that the classes which had been previously assessed by school inspectors in 2006, and had been criticised for poor English language skills, had, in fact, above-average reading skills (60 per cent scored in the top level for reading compared to a 40 per cent national average) 18 months after the inspection. According to the school board’s chairman the original inspector’s report failed to take account of how rapidly children improve their skills from a low base when knowledge of one language (Irish) reinforces learning another language (English). (*Irish Examiner*, 7 May, 2008).¹⁶

Occupational attainment may also be influenced by the subjects studied by those with third level education. Table 4 shows that of people currently in work, 10 per cent of Irish speakers (regardless of sex) and 10 per cent of women (regardless of whether they could speak Irish) obtained their third-level education in Education, in contrast to 3 per cent of non-speakers and 3 per cent of men. On the other hand, 17 per cent of non-speakers, and 26 per cent of men, had third level education in Engineering, Manufacturing, and Construction, in contrast to 12 per cent of Irish speakers and 3 per cent of women. The popularity of Social Science/Business/Law was roughly equal across the groups: in each group, about 22 per cent of workers with third level education had this as their subject area.

Of Irish speaking workers 69 per cent, compared to 63 per cent of workers were not Irish speakers, had third level education and had qualifications at degree level or higher; compared to 67 per cent of male workers, 66 per cent of female workers who had third level education had qualifications at degree level or higher.

Different subject groups had a different proportionate presence in the two social classes: PMT and non-PMT. Table 5 shows that 85 per cent of workers with third level education in Education, and 92 per cent of workers with third level education in Health, had PMT jobs; in contrast, 56 per cent of workers with third level education in Agriculture and Veterinary Science, and 48 per cent of workers with third level education in Social Services, had PMT jobs.

¹⁶ Ní Ríordáin and O’Donoghue (2008) suggest that a bilingual proficiency in English and Irish can enhance mathematical performance.

Table 4: *Workers with Third Level Qualifications by Main Subject Area of Qualification*

	<i>Irish Non-speakers</i>	<i>Irish Speakers</i>	<i>Men</i>	<i>Women</i>
	<i>11,430</i>	<i>13,411</i>	<i>12,149</i>	<i>12,790</i>
Education	3.0	10.4	3.3	10.4
Humanities and Art	8.0	8.5	6.3	10.1
Social Science/Business/Law	23.4	22.6	22.7	23.2
Life Sciences/Physical Sciences/ Mathematics/Statistics	5.3	5.7	5.7	5.4
Computing	8.1	5.8	8.7	5.1
Engineering, Manufacturing, Construction	16.9	11.7	25.9	2.7
Agriculture and Veterinary	3.2	2.7	5.0	1.0
Health	12.8	11.4	5.0	18.7
Social Services	3.2	2.7	0.8	5
Services	5.5	3.7	4.8	4.3
Multiple Subjects	10.6	14.8	11.7	14.0
Total	100	100	100	100
Third level with degree	63	69	67	66

Table 5: *Social Class of Workers with Third Level Qualifications, By Subject of Qualification*

	<i>Professional, Managerial, Technical</i>	<i>Non-Manual, Skilled Manual, Semi- Skilled and Unskilled</i>
Education	85.2	14.9
Humanities and Art	63.6	36.4
Social Science/Business/Law	67.4	32.6
Life Sciences/Physical Sciences/ Mathematics/Statistics	77.9	22.1
Computing	61.3	38.7
Engineering, Manufacturing, Construction	64.1	35.9
Agriculture and Veterinary	55.9	44.1
Health	91.6	8.4
Social Services	47.8	52.2
Services	37.4	62.6
Multiple Subjects	76.9	23.2
Total	17,427	7,512
Third Level with degree	77	23

Another factor influencing social class would be whether the third level education led to a degree: 77 per cent of workers with a degree had PMT jobs compared to just 50 per cent of workers with sub-degree third level education.

Consequently, the different mix of subjects chosen by Irish speaking and non-speaking workers – and by male and female workers – with third level education might explain the different proportions of workers from each of these groups in the PMT class. To test this hypothesis the logit equation for social class (Table 1) was re-estimated, this time over the subset of workers who had third level education and including whether or not the third level education resulted in a degree (or higher) – and also the subject in which the third level education (degree or non-degree) was pursued – in the list of determining variables. The marginal probabilities, shown in Table 6, show that even after controlling for subject – and whether the third level education resulted in a degree – the probability of a worker who could speak Irish being in a PMT job was 3.5 points higher than for a non-speaker and the probability of a female worker being in a PMT job was 7.5 points lower than for a male worker.

When the equation shown in Table 6 was re-estimated with frequent and infrequent speakers of Irish entered as separate categories, in an echo of the earlier results, the marginal probability of being in a PMT job *was higher for frequent speakers of Irish* than for non-frequent speakers (0.11 against 0.05); both marginal probabilities were significantly different from zero with z-values of 11.5 and 8.2, respectively.

The third reason why Irish speaking workers have an advantage over their counterparts who do not speak the language is that Irish speakers form a *network* of social contacts which results in the accumulation of *social capital* within the group. The term *network* has been used to describe many different types and forms of interactions between people, both on a formal and an informal basis.¹⁷ The type of network considered relevant to this discussion is a *social network* based on informal, interpersonal relationships.

According to Davern (1997, p. 288), “... a social network consists of a series of direct and indirect ties from one actor to a collection of others”. Deaux and Martin (2003) in their analysis of interpersonal networks and social categories regard interpersonal networks as made up of individuals who share common attributes in terms of membership of a social category (for example, ethnic background or occupation). Accordingly they suggest that a major effect of this is that social category can, “... shape an individual’s participation in everyday

¹⁷ See for example the work of, Larson (1991); Dubini and Aldrich (1991); Zaheer and Venkatraman (1995); Belussi and Arcangeli (1998); Freel (2000); Premartne (2001); and Madill *et al.* (2004) to name just a few.

Table 6: *Marginal Probabilities from Logit Model for Persons with Third Level Qualifications, Currently in Work Being Professional, Managerial or Technical Workers*

	<i>Marginal Probability</i>	<i>z-value</i>	<i>Sample Average</i>
Female	-0.075	-11.94	0.521
Age: 20-29	-0.221	-9.16	0.308
Age:30-39	-0.092	-4.15	0.347
Age: 40-49	-0.069	-3.01	0.202
Age: 50-59	-0.034	-1.44	0.114
Border	-0.098	-7.42	0.089
Mideast	-0.038	-3.67	0.119
Midland	-0.069	-4.16	0.044
Midwest	-0.064	-4.85	0.076
Southeast	-0.065	-5.05	0.086
Southwest	-0.079	-7.61	0.142
West	-0.094	-7.26	0.089
Catholic	-0.045	-5.57	0.841
Urban	0.000	-0.04	0.680
Irish Ethnicity	0.102	3.73	0.867
Manufacturing	0.073	4.18	0.140
Construction and Transport	-0.065	-2.82	0.094
Commerce	0.113	6.25	0.360
Public Administration and Defence	-0.045	-1.92	0.067
Professional Services	0.243	15.85	0.318
Never Married	0.058	1.76	0.459
Married	0.109	3.32	0.493
Separated or Divorced	0.019	0.56	0.040
Irish Nationality	0.138	4.89	0.870
Ireland Born	-0.029	-2.54	0.798
Irish Speaker	0.035	5.39	0.537
Third level with degree or higher	0.263	38.74	0.662
<i>Subject of Third level qualification (Residual: Multiple Subjects)</i>			
Education	0.118	10.09	0.058
Humanities	-0.036	-2.98	0.069
Social Science/Business/Law	0.047	6.27	0.191
Life Sciences and Computing	0.094	11.47	0.098
Engineering, Manufacturing, Construction	0.114	15.05	0.107
Agriculture, Veterinary Science	0.040	2.27	0.022
Health	0.228	34.67	0.097
Social Services	-0.100	-4.47	0.020

Workers with Third level educational qualifications only.

Dependent variable is 1 if the person was a professional, managerial, or technical worker, 0 otherwise.

Number of observations: 28,913; Pseudo $R^2 = 0.188$.

networks by creating opportunities to form relationships with similar others” (Deaux and Martin, 2003 p. 106). Deaux and Martin (2003) highlight the interpersonal networks that Polish immigrants developed when they relocated to the United States: they set up workmen’s groups, that were first located in boarding houses, with Polish immigrants being preferred to non-Polish immigrants, relatives being preferred to non-family members, and people from the same region in Poland being preferred over people from other Polish regions.

Lewer and Van den Berg (2007) show that the sharing of religious ideas and culture across countries (Buddhists, Confucians, Hindus, Eastern Orthodox, Catholics, or Protestants) creates network effects that improve intra-group trade. Both of these examples indicate that common attributes between individuals can lead to the creation of a social network. From an Irish perspective, such attributes may include the Irish language (*Gaeilge*) and Irish culture (e.g. Irish sports such as *hurling* and *Gaelic football*). These linguistic, cultural, and sporting bonds are instrumental in creating social (interpersonal or informal) networks, whereby individuals who are bound by these ties accumulate trust and social capital.

Ties between individuals within a social network can accrue benefits to those involved. One such example is in the job market. Davern (1997, 1999) highlights the advantages of social network involvement in the job market for both individuals in search of work, and employers looking to fill a vacancy: social network ties can be used as a source of informal job search in terms of, for example, job referrals, getting “inside” information or possibly being employed directly by a friend.

Davern and Hachen (2006) emphasised the work of Granovetter (1973) for his research on the role social networks play in the job mobility process. Granovetter (1973) proposed that the strength of interpersonal ties within a network influences the flow of information. He showed that the majority of his respondents found jobs through “informal” means, such as friends or family. He found that these ties served as bridges between networks, which allowed individuals to link with others who were not already part of their network (Davern and Hachen, 2006). It was through these social networks that individuals, who were connected in some way (for example via ethnic background, gender, culture), interacted with each other.

VII THE DECOMPOSITION OF SOCIAL CLASS ADVANTAGE

In the logistic model reported in Table 2, the “Irish speaker” effects operated entirely through the intercept term with the slope coefficients being unaffected by whether the person was an Irish speaker (the implication being

that the marginal probabilities associated with the variables – say, third level education – was the same for Irish speakers and non-speakers). This assumption can be relaxed by estimating the equation specified in Table 1 separately for: workers who were Irish speakers and non-speakers. The marginal probabilities from these models are shown in Table 7.

Table 7: *Marginal Probabilities from Logit Model for Irish Speakers and non-Speakers Currently in Work Being Professional, Managerial or Technical Workers*

	<i>Irish Speakers: 28,062</i>			<i>Irish Non-Speakers: 40,044</i>		
	<i>Marg. Prob.</i>	<i>z-value</i>	<i>Sample Average</i>	<i>Marg. Prob.</i>	<i>z-value</i>	<i>Sample Average</i>
Female	-0.114	-14.20	0.502	-0.085	-15.22	0.368
Age: 20-29	-0.219	-12.02	0.282	-0.170	-15.97	0.242
Age:30-39	-0.113	-6.29	0.274	-0.074	-6.36	0.297
Age: 40-49	-0.086	-4.81	0.224	-0.075	-6.61	0.250
Age: 50-59	-0.051	-2.81	0.166	-0.053	-4.59	0.154
Border	-0.129	-9.28	0.099	-0.095	-11.86	0.115
Mideast	-0.056	-4.29	0.111	-0.033	-3.98	0.126
Midland	-0.082	-4.80	0.056	-0.049	-4.48	0.057
Midwest	-0.089	-6.34	0.096	-0.053	-5.41	0.073
Southeast	-0.081	-5.79	0.103	-0.071	-8.30	0.107
Southwest	-0.097	-8.31	0.162	-0.070	-9.04	0.130
<i>West</i>	<i>-0.117</i>	<i>-8.71</i>	<i>0.111</i>	<i>-0.072</i>	<i>-7.93</i>	<i>0.087</i>
<i>Catholic</i>	<i>-0.015</i>	<i>-0.98</i>	<i>0.936</i>	<i>-0.096</i>	<i>-11.40</i>	<i>0.842</i>
<i>Urban</i>	<i>0.029</i>	<i>3.30</i>	<i>0.582</i>	<i>-0.006</i>	<i>-0.97</i>	<i>0.626</i>
Irish Ethnicity	0.030	0.50	0.993	0.076	4.19	0.810
<i>Manufacturing</i>	<i>-0.135</i>	<i>-7.41</i>	<i>0.140</i>	<i>-0.143</i>	<i>-15.68</i>	<i>0.180</i>
<i>Construction and</i>						
<i>Transport</i>	<i>-0.294</i>	<i>-19.09</i>	<i>0.148</i>	<i>-0.264</i>	<i>-36.48</i>	<i>0.223</i>
Commerce	-0.034	-1.87	0.317	-0.049	-4.43	0.331
Public Administration and Defence	-0.218	-12.22	0.082	-0.150	-15.68	0.049
<i>Professional Services</i>	<i>0.149</i>	<i>8.10</i>	<i>0.267</i>	<i>0.031</i>	<i>2.35</i>	<i>0.158</i>
Third-level: degree and non-degree	0.601	39.08	0.553	0.582	59.84	0.334
Secondary-level: lower and upper	0.179	7.77	0.414	0.161	15.90	0.558
Never Married	-0.001	-0.04	0.420	0.018	0.74	0.390
Married	0.053	1.65	0.523	0.065	2.83	0.541
Separated or Divorced	-0.045	-1.24	0.043	-0.003	-0.13	0.057
Irish Nationality	0.153	2.95	0.992	0.078	4.41	0.810
Ireland Born	-0.039	-2.20	0.949	-0.042	-4.10	0.742

An *italicised, bold* font indicates that the marginal probabilities were significantly different between Irish speakers and non-speakers at 10 per cent or less.

An *italicised no-bold* font indicates that the marginal probabilities were significantly different between Irish speakers and non-speakers at 20 per cent or less.

According to Table 7, compared to an Irish speaking male (currently in work), an Irish speaking female (currently in work) was 11.4 points less likely to be in a PMT job while, compared to an Irish non-speaking male (currently in work), an Irish non-speaking female (currently in work) was 8.5 points less likely to be in a PMT job. So, while discrimination against women workers is a pervasive feature of the Irish jobs market, it would appear to be more pernicious among Irish speakers than among non-speakers.

An italicised, bold font in Table 7 indicates that the marginal probabilities were significantly different between the relevant groups at 10 per cent or less – while an italicised no-bold font indicates that the marginal probabilities were significantly different between the two groups at 20 per cent or less – level of significance. So, for example, in Table 7, an Irish speaking worker living in the West of Ireland was 11.7 points less likely to be in a PMT job, compared to an Irish speaking worker in Dublin, while, compared to an Irish non-speaking worker in Dublin, an Irish non-speaking worker living in the West of Ireland was 7.2 points less likely to be in a PMT job; the italicised no-bold font indicates that these two marginal probabilities were significantly different at a 20 per cent or less level of significance.

The Oaxaca (1973) method of decomposing differences between groups, in their respective mean values, into “discrimination” and “characteristics” components is, arguably, the most widely used decomposition technique in economics. This method has been extended from its original setting within regression analysis, to explaining group differences in probabilities derived from models of discrete choice with a binary dependent variable and estimated using logit/probit methods (Nielsen, 1998).

The Oaxaca decomposition (and its extension) is formulated for situations in which the sample is subdivided into two mutually exclusive and (collectively exhaustive) groups, such as, for example, men and women. Then, one may decompose the difference in, for example, average wages between men and women – or the difference between male and female (or Irish speaking and non-speaking) workers in their average probabilities of being in PMT jobs – into two parts: the first due to inter-group differences in the coefficient vectors and the second due to inter-group differences in the attribute vectors.

The attribute contribution is computed by asking what the average male/female (Irish speaker/non-speaker) difference in probabilities *would have been* if the difference in attributes between them had been evaluated using a common coefficient vector. Typically, two separate computations of the attribute contribution are provided using, in turn, the coefficient vectors of the two groups as the common vector. It is important to note that the two sets of computations will, generally, yield different answers.

Column 1 of Table 8 shows the *observed* difference between Irish speaking and non-speaking workers in their proportions in PMT jobs: $0.502 - 0.333 =$

0.169. Column 2 of Table 9 shows the amount of the overall gap that is due to the *attributes effect* when speaker and non-speaker attributes are both evaluated using *speaker* coefficients; similarly, column 4 of Table 8 shows the amount of the overall gap that is due to the *attributes effect* when speaker and non-speaker attributes are both evaluated using *non-speaker* coefficients. Two points should be noted:

Table 8: *The Decomposition of the Proportion of Workers in Professional, Managerial, and Technical Occupations by Ability to Speak Irish*

Sample Average	Irish Non-Speaker Attributes Evaluated at Irish Speaker Coefficients		Irish Speaker Attributes Evaluated at Irish Non-Speaker Coefficients	
	Attributes Difference*	Residual	Attributes Difference**	Residual
$F^{IS} - F^{NS}$				
0.502 – 0.333 = 0.169	0.502-0.374 = 0.128	0.374- 0.333 =0.041	0.448-0.333 = 0.115	0.502-0.448 = 0.054

F^{IS} and F^{NS} are the proportions of workers who are, respectively, Irish speakers and non-speakers in professional, managerial, or technical jobs.

*Attributes difference: *holding coefficients constant at Irish speaker values*, this difference represents the inter-group difference in proportions due to differences between Irish speakers and non-speakers in their attributes.

** Attributes difference: *holding coefficients constant at Irish non-speaker values*, this difference represents the inter-group difference in proportions due to differences between Irish speakers and non-speakers in their attributes.

Table 9: *The Decomposition of the Proportion of Workers, with Third Level Qualifications, in Professional, Managerial, and Technical Occupations by Ability to Speak Irish*

Sample Average	Irish Non-Speaker Attributes Evaluated at Irish Speaker Coefficients		Irish Speaker Attributes Evaluated at Irish Non-Speaker Coefficients	
	Attributes Difference*	Residual	Attributes Difference**	Residual
$F^{IS} - F^{NS}$				
0.720 – 0.633 = 0.087	0.720-0.668 = 0.052	0.668-0.633 =0.035	0.681-0.633 = 0.048	0.720-0.681 = 0.039

F^{IS} and F^{NS} are the proportions of workers with third level qualifications who are, respectively, Irish speakers and non-speakers in professional, managerial, or technical jobs.

*Attributes difference: *holding coefficients constant at Irish speaker values*, this difference represents the inter-group difference in proportions due to differences between Irish speakers and non-speakers in their attributes.

** Attributes difference: *holding coefficients constant at Irish non-speaker values*, this difference represents the inter-group difference in proportions due to differences between Irish speakers and non-speakers in their attributes.

1. When non-speaker attributes are evaluated at speaker coefficients, the proportion of non-speaker workers in PMT jobs is predicted to rise from the observed value of 0.333 to 0.374: this is because non-speaker attributes are being evaluated using more favourable coefficients (i.e. those of speakers). Consequently, of the observed gap of 0.169 points, 0.128 (or 76 per cent) can be explained by differences in attributes between workers who are Irish speakers and non-speakers. The “unexplained” residual of 24 per cent could be ascribed to some “structural advantage” that Irish speakers possess over non-speakers.
2. When speaker attributes are evaluated at non-speaker coefficients, the proportion of Irish speaking workers in PMT jobs is predicted to fall from the observed value of 0.502 to 0.448: this is because speaker attributes are being evaluated using less favourable coefficients (i.e. those of non-speakers). Consequently, of the observed gap of 0.169 points, 0.115 (or 68 per cent) can be explained by differences in attributes between workers who are Irish speakers and non-speakers. The “unexplained” residual of 32 per cent could be ascribed to some “structural advantage” that Irish speakers possess over non-speakers.

Would the above conclusions have changed if the subject areas in which third-level education had been obtained were taken into account? In order to answer this question the model shown in Table 6 – estimated over the subset of workers with third level education – was now estimated separately for Irish speakers and non-speakers.¹⁸ These results were then used to reprise the decompositions, discussed above, and these are shown in Table 10 (Irish speaking/non-speaking workers).

Under this revaluation, the observed difference between Irish speaking and non-speaking workers, *with third level education*, in PMT jobs is 0.087 points, a reduction from the corresponding difference of 0.169 points of Table 8 when all workers (regardless of educational attainment) were considered. However, when attention was restricted to workers with third level education, 58 and 55 per cent of the observed gap was due to attribute differences between the two groups of workers when, respectively, non-speaker attributes were evaluated using speaker coefficients and speaker attributes were evaluated using non-speaker coefficients. So, the structural advantage of Irish speaking, over non-speaking, workers increased from 24-32 per cent, when all workers were analysed, to 55-58 per cent when only workers with third level education were considered.

¹⁸ For reasons of economy these results are not shown and may be obtained on request from the corresponding author.

Table 10: *Marginal Probabilities from Logit Model of Persons Currently in Work Being Professional, Managerial, or Technical Workers: Northern Ireland and Wales*

	Northern Ireland		Wales	
	Marginal Probability	z-value	Marginal Probability	z-value
<i>Sex</i>				
Female	-0.111	-13.45	-0.154	-22.69
<i>Age Bands (Residual 55+)</i>				
Age: 19-29	-0.166	-13.17	-0.114	-9.90
Age: 30-44	-0.050	-4.07	-0.009	-0.89
Age: 45-54	-0.002	-0.11	0.020	1.84
<i>Religion (NI only)</i>				
Catholic	-0.013	-1.53		
<i>Highest Education level (Residual: Primary or below)</i>				
Secondary level	0.214	21.59	0.212	28.19
Third level: degree and non-degree	0.601	74.09	0.617	106.19
<i>Marital Status (Residual: widowed)</i>				
Never Married	0.029	0.79	-0.011	-0.40
Married (including remarried)	0.078	2.28	0.053	1.98
Separated or Divorced	0.024	0.62	0.047	1.59
<i>Industry of Work (Residual: Agriculture)</i>				
Mining and Manufacturing	0.296	9.03	0.147	6.79
Construction and Transport	0.136	4.05	0.029	1.32
Commerce	0.402	13.42	0.262	12.43
Public administration and Defence	0.166	4.74	0.098	4.08
Professional services	0.443	16.64	0.314	16.55
Some knowledge of Irish (NI only)	0.058	4.16		
Welsh Speaker (Wales only)			-0.015	-1.79

Dependent variable is 1 if the person was a professional, managerial, or technical worker, 0 otherwise.

Number of observations: 32,974 (Wales) and 20,281 (NI); Pseudo $R^2 = 0.239$ (Wales) and 0.243 (NI).

The problem with the O-B method of decomposition is that the decomposition is anchored either by treating non-speakers as speakers (column 2, Tables 8 and 9) or speakers as non-speakers (column 4, Tables 8 and 9). More recently, Borooah and Iyer (2005) have proposed a method of decomposition which combines both “anchors” into a single decomposition formula. Denote, by \bar{P}^{IS} and \bar{P}^{NS} , the average probabilities of being in PMT jobs, computed over *all the workers* in the sample, when their individual

attribute vectors (the \mathbf{X}_i^k) are *all* evaluated using the coefficient vectors of, respectively speakers (β^{IS}) and men (β^{NS}); in other words, \bar{P}^{IS} and \bar{P}^{NS} are the average probabilities of being in PMT jobs, computed over the entire sample, *when all the persons in the sample* are treated as, respectively, Irish speakers and non-speakers. The difference between the probabilities, $\bar{P}^{IS} - \bar{P}^{NS}$, represents the “response effect” because it is entirely the consequence of differences between speakers and non-speakers in their (coefficient) responses to a given vector of attributes.

Borooah and Iyer (2005) have shown that these synthetic probabilities can be used to resolve the ambiguity of the O-B formulation since: $F^{IS} - F^{NS} = \bar{P}^{IS} - \bar{P}^{NS}$ + the weighted average of the two attribute effects, where the two attribute effects are shown in columns 2 and 4 of Tables 8 and 9, the weights being the proportions of speakers and non-speakers in the sample.

On our calculations, when all workers were considered, $\bar{P}^{IS} = 0.426$ and $\bar{P}^{NS} = 0.380$ so that $\bar{P}^{IS} - \bar{P}^{NS} = 0.046$. Since F^{IS} and $F^{NS} = 0.169$ (Table 8), 73 per cent of the observed difference between Irish speaking and non-speaking workers in their proportions in PMT jobs could be explained by differences between them in attributes. When only workers with third-level qualifications were considered, $\bar{P}^{IS} = 0.696$ and $\bar{P}^{NS} = 0.659$ so that $\bar{P}^{IS} - \bar{P}^{NS} = 0.037$. Since $F^{IS} - F^{NS} = 0.087$ (Table 9), 57 per cent of the observed difference between Irish speaking and non-speaking workers (with third level qualifications) in their proportions in PMT jobs could be explained by differences between them in attributes.

VI COMPARISON WITH OTHER COUNTRIES

In order to examine whether the results reported for Ireland were echoed in other countries, the equation specification reported in Table 2 was estimated for Northern Ireland and for Wales on data for all those in employment, with a dichotomy between those working in professional, managerial, or technical occupations (PMT) and those in non-PMT occupations. The data for this exercise were obtained from SARS01 and the derived econometric estimates are shown in Table 10. Putting aside the fact that there was a five year gap between the UK and Irish Censuses, the definitions of the variables were sufficiently similar to permit a comparison between the Irish results and those for Northern Ireland and Wales.

The first point of interest regarding Northern Ireland was that although being Catholic carried some disadvantage (1.3 points) in terms of working in

PMT occupations, this disadvantage was not statistically significant.¹⁹ However, there was significant advantage attached to having some knowledge of Irish: *ceteris paribus* compared to workers with no knowledge of Irish, the likelihood of workers with some knowledge of Irish being in PMT jobs was higher by 5.8 points, a margin not dissimilar to the 6.7 point advantage enjoyed by Irish speaking workers in Ireland.

The position in Wales was different: here Welsh speakers were at a small but significant disadvantage relative to non-speakers since *ceteris paribus* compared to workers who could not speak Welsh, the likelihood of workers who were Welsh speakers being in PMT jobs was lower by 1.5 points. This is perhaps explained by the fact that South Wales, with jobs and industry, is relatively “Welsh-free” compared to more rural North Wales where Welsh is more commonly spoken.

VII CONCLUSIONS

This paper, using data from the *2006 Irish Census*, provided evidence of the structural disadvantage of women, relative to men, workers – and of the structural advantage of Irish speaking, relative to non-speaking, workers – in Ireland’s labour market where, it bears emphasising, disadvantage and advantage were defined in terms of occupational outcomes. The former finding is, perhaps, less surprising, than the latter. To the best of our knowledge there has been no systematic investigation of any advantage enjoyed by Irish speakers in Ireland and allegations of the comfortable middle class ambience of the Gaelscoileanna have remained at the level of anecdote and hearsay – *dúirt bean liom go ndúirt bean léi*.²⁰

Since linguistic elitism is a feature of many societies – in Tsarist Russia and in Vietnam the elite spoke French; in the Philippines, the elite spoke Spanish; in Plantagenet England, the elite spoke Anglo-Norman; in Ptolemaic Egypt, the elite spoke Koine Greek²¹ – and since Irish enjoys the constitutional status of the national and first official language of Ireland, such an investigation was, arguably, overdue.

Our conclusion was that after controlling for as many relevant factors as the data permitted, there was a small, but undeniably significant, advantage that accrued to Irish speakers in terms of obtaining jobs of the professional,

¹⁹ The 2001 Census was conducted four years after the Good Friday Agreement which ushered in a period of rapprochement between Unionist and Nationalist politicians and 25 years after the first Fair Employment Act (NI) of 1976.

²⁰ A woman told me that another woman told her.

²¹ Information from *Wikipedia*.

managerial, or technical variety. Equally, a considerable part of the difference between speakers and non-speakers in their proportionate presence in the upper reaches of occupational class was due to structural advantage.

We appreciate that the status of Irish as a language is an emotive subject in Ireland and that some – indeed, many – might find our conclusions difficult to accept. But, as Sherlock Holmes, had he been an Irish speaker – which, alas, he was not – might have said: “Nuair a fhaigheann tú réidh lena bhfuil dodhéanta, fiú agus gan í a bheith róchosúil, níl fágtha agat ach an fhírinne”.²²

REFERENCES

- ARROW, K. J., 1998. “What Has Economics to Say About Racial Discrimination”, *Journal of Economic Perspectives* 12, pp. 91-100.
- BLACKBURN, D., S. DRINKWATER, D. LESLIE and P. MURPHY, 1997. “A Picture of Male and Female Unemployment Among Britain’s Ethnic Minorities”, *Scottish Journal of Political Economy*, Vol. 44, pp. 182-197.
- BOROOAH, V. K., 1999. “Is There a Penalty to Being a Catholic in Northern Ireland? An Econometric Analysis of the Relationship Between Religious Belief and Occupational Success”, *European Journal of Political Economy*, Vol. 15, pp. 163-92.
- BOROOAH, V. K., 2001. “How Do Employees of Ethnic Origin Fare on the Occupational Ladder in Britain?” *The Scottish Journal of Political Economy*, Vol. 48, pp. 1-26.
- BOROOAH, V. K. and S. IYER, 2005. “The Decomposition of Inter-Group Differences in a Logit Model: Extending the Oaxaca-Blinder Approach with an Application to School Enrolment in India”, *Journal of Economic and Social Measurement*, Vol. 30, pp. 279-293.
- BOROOAH, V. K. and J. E. MANGAN, 2007. “What Underpins Occupational Success? Race, Access and Reward in Professional and Managerial Jobs in Australia”, *Labour*, Vol. 21, pp. 837-869.
- DAVERN, M., 1997. “Social Networks and Economic Sociology: A Proposed Research Agenda for a More Complete Social Science”, *American Journal of Economics and Sociology*, Vol. 56, No. 3, pp. 287-302.
- DAVERN, M., 1999. “Social Networks and Prestige Attainment: New Empirical Findings”, *American Journal of Economics and Sociology*, Vol. 58, No. 4, pp. 843-864.
- DAVERN, M. and D. S. HACHEN, 2006. “The Role of Information and Influence in Social Networks, Examining the Association Between Social Network Structure and Job Mobility”, *American Journal of Economics and Sociology*, Vol. 65, No. 2, pp. 269-293.
- DEAUX, K. and D. MARTIN, 2003. “Interpersonal Networks and Social Categories: Specifying Levels of Context in Identity Processes”, *Social Psychology Quarterly*, Vol. 66, No. 2, Special Issue: Social Identity: Sociological and Social Psychological Perspectives (June, 2003), pp. 101-117.

²² “When you have eliminated the impossible, whatever remains, however improbable, must be the truth”, Arthur Conan Doyle, *The Sign of the Four*.

- DUBINI, P. and H. ALDRICH, 1991. "Personal and Extended Networks are Central to the Entrepreneurial Process", *Journal of Business Venturing*, Vol. 6, No. 5, pp. 305-313.
- FREEL M. S., 2000. "External Linkages and Product Innovation in Small Manufacturing Firms", *Entrepreneurship and Regional Development*, Vol. 12, No. 3, pp. 245-266.
- GRANOVETTER, M., 1973. "The Strength of Weak Ties", *American Journal of Sociology*, Vol. 78, pp. 1360-1380.
- HIGGS, R., 1977. *Competition and Coercion: Blacks in the American Economy, 1865-1914*, New York: Columbia University Press.
- LARSON A., 1991. "Partner Networks: Leveraging Eternal Ties to Improve Entrepreneurial Performance", *Journal of Business Venturing*, Vol. 6, No. 3, pp. 173-88.
- LEWER, J. J. and H. VAN DEN BERG, 2007. "Religion and International Trade: Does the Sharing of a Religious Culture Facilitate the Formation of Trade Networks?" *American Journal of Economics and Sociology*, Vol. 66, No. 4, pp. 765-794.
- MADILL, J. J., G. H. HAINES and A. L. RIDING, 2004. "Networks and Linkages Among Firms and Organisation in the Ottawa-Region", *Entrepreneurship and Regional Development*, Vol. 16, pp. 351-368.
- NIELSEN, H. S., 1998. "Discrimination and Detailed Decomposition in a Logit Model", *Economics Letters*, Vol. 61, pp. 115-120.
- NÍ RÍORDÁIN, M. and J. O'DONOGHUE, 2008. "The Relationship Between Performance on Mathematical Word Problems and Language Proficiency for Students Learning Through the Medium of Irish", *Educational Studies in Mathematics*: <http://www.springerlink.com/content/158547k16j81r163/fulltext.pdf>.
- OAXACA, R., 1973. "Male-Female Wage Differentials in Urban Labor Markets", *International Economic Review*, Vol. 14, pp. 693-709.
- PREMARTNE, S. P., 2001. "Networks, Resources and Small Business Growth: The Experience in Sri Lanka", *Journal of Small Business Management*, Vol. 39, No. 4, pp. 363-371
- SCHMIDT, P. and R. P. STRAUSS, 1975. "The Prediction of Occupation Using Multiple Logit Models", *International Economic Review*, Vol. 16, pp. 471-486.
- SEN, A.K., 1993. "Capability and Well-Being" in M. Nussbaum and A.K. Sen (ed.), *The Quality of Life*, Oxford, Clarendon Press.
- WHATELY, H. and G. WRIGHT, 1994. "Race, Human Capital and Labour Markets in American History" in G. Grantham and M. MacKinnon (eds.), *Labour Market Evolution*, New York: Routledge.
- ZAHEER, A. and N. VENKATRAMAN, 1995. "Relational Governance as an Inter-Organisational Strategy: an Empirical Test of the Role of Trust in Economic Exchanges", *Strategic Management Journal*, Vol. 16, pp. 373-392.

