

## CHAPTER 11

### AREA OR INDIVIDUAL: ADDITIONAL ANALYSES FOR COMMUNITY DIFFERENTIATION

#### KEY POINTS

This was a limited analysis, only using simple cross-tabulations, but it does suggest that those who live as relatively small minorities in areas dominated by another religious community may have rather different profiles from those who live in more evenly divided areas.

A particular concern is the access to public housing – which seems to be poorer when one is in the minority, regardless of religion. Lack of access to public housing can force people into the private rented sector, with higher levels of overcrowding and lack of central heating.

One must be wary of over interpretation, but there is some cumulative evidence from the tables that Catholics who live as relatively small minorities (25% or less) in predominately Protestant areas do rather better in terms of education, occupational status, home and car ownership than Catholics living in areas where they are in the majority. So much so, that on some characteristics, such as car ownership and occupational status, they contradict national trends and “outperform” Protestants

#### 11.1 Introduction and Methods

This chapter examines the experience of being a member of one of the two main religious communities in small areas (census wards) where the majority of the population are in the other community. It uses data from the 2001 census and controls for deprivation by using values of the 2005 Multiple Deprivation Measure (MDM2005).

Based on an inspection of the distribution of the numbers of Catholics and Protestants in NI Census wards, (Figures 11.1 and 11.2) we decided to compare the experiences of people living in the 232 wards with 25% or less people with Catholic origins with those in the 130 wards with 75% or more Catholics. These two groups of wards have each been split into three, based on their values of the MDM2005. We have used MDM cut points that divide the full set of 582 NI wards into three equal groups. They divide the 232 minority Catholic wards into groups of 122, 56 and 49 and the 130 majority Catholic wards into groups of 8, 31 and 87. It was not possible to compute MDM values for 9 wards in these two groups – mostly in Moyle. Moreover, the number of Catholic majority wards in the least deprived band is so small (N=8) that figures may not be reliable and the results have been suppressed from the tables.

A further limitation of these comparisons is that we have to exercise caution when examining issues that are age related when there are no age breakdowns in the census tables. Following the national trend, the population in Catholic majority areas is younger than in Protestant majority areas. In the 130 Catholic majority wards, 41.9% of people are aged 24 and under (Table 11.1) and 10.5% are 65 and over; comparable figures for the Protestant majority wards are 32.4% and 15.05%.

## 11.2 Ward Based Comparison of Catholics and Protestants Living as Minorities

Across Northern Ireland, the two communities differ in the likelihood of owning their own housing: 71.4% of Protestant compared with 67.4% of Catholics (Table 11.2). However, in Protestant majority areas, Catholics are slightly more likely than Protestants to be owner-occupiers and this difference is greatest in the most deprived wards where 53.2% of Catholics compared to 46.4% of Protestants are home owners.

Access to social rented housing seems to depend on whether or not one is a member of the local majority community. Across N Ireland as a whole, Catholics make slightly more use of social rented housing than Protestant (22.8% vs. 20.3%), but in Protestant majority areas there is a lower proportion of Catholics than Protestants in such housing, whereas the situation is reversed in Catholic majority areas (Table 11.3).

Private rental – especially in more deprived areas, can be regarded as a less desirable alternative to social rental. From Table 11.3 we see something of a substitution effect where there is a higher than expected level of private rental amongst the minority population group.

The analysis of educational attainment has been based on figures for all people aged 16-64, as the ward tables were not accessible. Across Northern Ireland, the greater average age of the Protestant population is one factor accounting for the slightly higher proportion with no qualifications. On this basis, we would expect there to be fewer people with no qualifications in the majority Catholic areas. This is not the case. In the Catholic majority areas, 46.2% of 16-74 year olds have no qualification compared with 40.5% in the Protestant majority areas (Table 11.4). Considering the members of the separate communities in the Protestant majority areas, we find that less Catholics than Protestant have no qualifications – at all three levels of deprivation. These differences are not reproduced in the Catholic majority areas, where there are hardly any differences between the proportions of Catholics and Protestant with no qualifications.

We find a similar result when we consider the proportions of each community with higher-level qualifications: classified as group 4 or 5 by the census (Level 4= 1<sup>st</sup> degree, NVQ level4 HNC HND or equivalents; Level 5= higher degree, NVQ level 5 or equivalents).

The proportion of the entire population with such qualifications is higher in the minority Catholic areas than in the majority Catholic areas (Table 11.5). In the minority Catholic areas a higher proportion of Catholics than Protestant achieve these qualifications – at all levels of deprivation. But, again, there is little difference between the two communities in the Protestant majority areas. Similar results are found when we consider the people with qualifications to level 4 or 5 as a proportion of those with some qualifications. Catholics consistently outperform Protestants in Catholic minority areas, but there is little difference between the communities in Protestant majority areas.

Car ownership has long been used as proxy for income in the absence of a direct question on income in the decennial census. But the relation of car ownership to both household size and rurality confound the interpretation of simple Cross tabulations. Catholics tend to live in larger households and less rural areas than Protestants. The former might be expected to lead to more car ownership, the latter to less, but the

relative strength of the effects is unknown. Across Northern Ireland as a whole, Catholics are rather more likely than Protestants to live in households with no access to cars (28.7% compared to 24.8%) and this lack of access is especially true of high deprivation Catholic majority wards (Table 11.6). Conversely, in Protestant majority areas, Catholics are slightly more likely to have cars than their Protestant neighbours. Similar results are found for the level of multiple car ownership (or use). In Catholic minority areas there is a slightly higher level of multiple ownership amongst Catholics, but in Catholic majority areas Protestant households are more likely to have 2 or more cars.

Household size will be a major influence on levels of overcrowding, which may account for the national difference between Catholics (16.1% in overcrowded accommodation) and Protestants (6.8% in overcrowded accommodation). This difference is reproduced in both Catholic and Protestant majority areas (Table 11.7). Predictably, levels of overcrowding increase with deprivation for both communities – it is particularly bad for Catholics in high deprivation majority Catholic areas.

The census does not collect much information on the quality of housing stock, but it does include a question on the presence of central heating. The most striking result for the present purposes is the relatively high proportion of Protestants in Catholic majority areas living in accommodation without central heating in. This may be linked to the relatively high use of privately rented accommodation by this group.

In relation to occupational status, there is not much difference between the occupational status of those who are employed in the two communities across NI as a whole (Table 11.8). Slightly more Protestants than Catholics are in managerial or professional occupations – but this may just be a consequence of age difference. Differences emerge when we look at employment status in majority and minority communities. Where Catholics are in the minority, they defy the national trend and have a higher proportion of higher-grade occupations than Protestants. Similarly in these Catholic minority areas (at all levels of deprivation) a higher proportion of Protestants than Catholics are in routine or semi-routine occupations; again contrary to the national averages. Employment status for members of the two communities much more closely resembles the national picture in Catholic majority areas.

Catholics of working age are more likely to have never worked than Protestants and this holds for both the minority and majority wards at all levels of deprivation (Table 11.9). The proportion that has never worked increases with deprivation for members of both communities, especially in Catholic majority areas. A similar pattern is found amongst the percentages of those who are long-term unemployed.

### Conclusion

This has been a limited analysis, only using simple cross-tabulations, but it does suggest that those who live as relatively small minorities in areas dominated by another religious community may have rather different profiles from those who live in more evenly divided areas.

A particular concern is the access to public housing – which seems to be poorer when one is in the minority, regardless of religion. Lack of access to public housing can force people into the private rented sector, with higher levels of overcrowding and lack of central heating.

One must be wary of over interpretation, but there is some cumulative evidence from the tables that Catholics who live as relatively small minorities (25% or less) in

predominately Protestant areas do rather better in terms of education, occupational status, home and car ownership than Catholics living in areas where they are in the majority. So much so, that on some characteristics, such as car ownership and occupational status, they contradict overall trends and “outperform” Protestants.

### **11.3 Outcomes for Catholics in predominantly Protestant areas and Protestants in predominantly Catholic Areas – using SARS data**

In the 1991 SARS, an area identifier at the level of groups of Local Authorities is provided for the individual based data; the breakdown between the areas is shown below. Based on the religions of those in each of the areas, the ten areas are designated as predominantly Catholic (if there are more than 50% Catholics) or predominantly Protestant (if there are more than 50% Protestants).

#### 11.3.1 Economic Inactivity

The percentage of economically inactive overall is 15.7% for men and 41.8% for women. Economic inactivity is more likely among Catholics with 34.9% for Catholics and 30.6% for Protestants and this is true for both men (19.4% compared to 16.3%) and women (49.7% compared to 43.7%). Relative to these overall figures, Catholic men are more likely to be economically active in predominantly Protestant areas; and, both Catholic and Protestant women are more likely to be economically inactive in Catholic than in Protestant areas.

#### 11.3.2 Percent Unemployment

Among those economically active, the percent unemployed overall is 11.6% for men and 8.2% for women. Catholics are more than twice as likely as Protestants to be unemployed (23.3% compared to 10.8%) and this is true for both men (27.3% compared to 12.7%) and women (17.2% compared to 8.2%). Relative to these overall figures, all four groups (men and women, Catholic or Protestant) are more likely to be unemployed in predominantly Catholic areas and less likely to be unemployed in predominantly Protestant areas.

The percent with limiting long term illness overall is 11% for men and 12% for women. Protestants are slightly more likely to report a limiting long term illness (14% compared to 11%) and this is true for both men (13% compared to 11%) and women (14% compared to 12%). Relative to these overall figures, the only small difference is that Catholic women report a lower rate of limiting long term illness in Protestant areas.

The percent with any qualification overall is 13.3% for men and 6.1% for women. There is little difference between Catholics (8.9%) and Protestants (8.3%) and this is true for men (10.3% compared to 10.8%) although Catholic women are slightly more likely to have a qualification (7.6% compared to 6.2%). Relative to these overall figures, both Catholic and Protestant men were more likely to have a qualification in a predominantly Protestant areas compared to a predominantly Catholic area (14.3% compared to 7.5% for Catholic men and 12.5% compared to 7.2% for Protestant men) and Catholic women were more likely to have a qualification in predominantly

Protestant areas (8.0% compared to 6.0%) with only a small and insignificant difference for Protestant women.

### 11.3.3 Summary

These analyses using SARS data show that in general, Protestant *areas* provide more favourable labour markets for both Protestant and Catholic *individuals* and, to a lesser extent, a similar pattern holds for qualifications.

**Table 11.1 Age Distribution of the Groups of Wards to be Compared**

	N of wards	Proportion aged :						Popln density
		0 15	16 24	25 44	45 64	65 74	75&over	
		%	%	%	%	%	%	
National (all wards)	582	23.6	12.5	29.0	21.6	7.3	5.9	.84
Wards with:								
Up to 25% Catholic	232	21.6	10.8	29.4	23.3	8.2	6.8	.49
75% and over Catholic	130	27.8	14.1	28.4	19.2	6.1	4.4	.91

**Table 11.2 Percentage of the Two Communities Owning their Homes by Ward Type**

	Deprivn	N of wards	Percentage in owner occupation		
			Catholic %	Protestant %	All %
National (all wards)		582	67.4	71.4	69.6
Wards with:					
Up to 25% Catholic	All	232	73.9	71.3	71.4
	1	122	83.8	84.6	84.3
	2	56	67.9	67.6	67.4
	3	49	53.2	46.4	46.8
75% and over Catholic	All	130	62.8	64.9	62.9
	2	31	77.5	80.3	77.8
	3	87	56.9	55.7	56.7

**Table 11.3 Percentage of the Two Communities in Social and Private Rental by Ward Type**

	Deprivn	N of wards	Percentage in social rental			Percentage in private rental		
			Catholic	Protestant	All	Catholic	Protestant	All
National (all wards)		582	22.8	20.3	21.2	9.8	8.3	9.2
Up to 25% Catholic	All	232	16.0	21.6	21.0	10.1	7.0	7.6
	1	122	7.6	9.3	9.1	8.6	6.1	6.6
	2	56	19.9	24.7	24.0	12.2	7.7	8.6
	3	49	35.6	45.2	44.4	11.2	8.4	8.8
75% and over Catholic	All	130	29.0	23.2	28.4	8.2	11.9	8.7
	2	31	13.6	8.7	12.9	8.9	11.0	9.3
	3	87	35.0	31.5	34.7	8.2	12.8	8.7

**Table 11.4 Percentage of the Two Communities with No Qualifications by Ward Type**

	Deprivn	N of wards	Percentage with no qualifications		
			Catholic	Protestant	All
National (all wards)		582	41.3	42.6	41.6
Wards with:					
Up to 25% Catholic	All	232	33.2	41.9	40.5
	1	122	27.9	35.0	33.8
	2	56	37.5	44.4	43.0
	3	49	44.8	56.9	55.3

75% and over Catholic	All	130	46.3	47.2	46.2
	2	31	40.4	42.0	40.5
	3	87	49.2	50.6	49.1

**Table 11.5 Percentage of the Two Communities with Higher Level Qualifications by Ward Type**

	Deprivn	N of wards	Percentage of adult popln with level 4 or 5 quals			Percentage of adults with some educational qualifications whose quals are to level 4 or 5		
			Catholic	Protestant	All	Catholic	Protestant	All
National (all wards)		582	16.0	15.1	15.8	27.3	26.4	27.1
Up to 25% Catholic	All	232	21.4	15.3	16.1	32.0	26.3	27.1
	1	122	24.9	19.5	20.2	34.5	30.0	30.6
	2	56	17.8	12.8	13.7	28.5	23.0	24.0
	3	49	14.6	7.1	8.0	26.5	16.5	17.9
75% and over Catholic	All	130	12.1	13.5	12.4	22.6	25.6	23.0
	2	31	15.6	16.2	15.7	26.2	27.9	26.4
	3	87	10.4	11.4	10.6	20.5	23.2	20.9

**Table 11.6 Car Ownership Amongst the Two Communities by Ward Type**

	Deprivn	N of wards	Percentage of persons in households with no cars			Percentage of persons in households with 2 or more cars		
			Catholic	Protestant	All	Catholic	Protestant	All
National (all wards)		582	28.7	24.8	26.3	26.8	31.0	29.2
Up to 25% Catholic	All	232	21.8	25.1	24.7	33.4	30.9	31.1
	1	122	12.4	13.5	13.4	42.8	42.3	42.3
	2	56	26.3	26.5	26.4	28.2	26.6	26.7
	3	49	42.7	49.0	48.5	13.4	10.5	10.7
75% and over Catholic	All	130	34.3	28.2	33.8	21.7	28.8	22.3
	2	31	18.2	13.6	17.6	35.5	41.3	36.2
	3	87	40.6	36.0	40.3	16.3	22.0	16.7

**Table 11.7 Overcrowding and Access to Central Heating amongst the Two Communities by Ward Type**

	Deprivn	N of wards	Percentage of persons in overcrowded accommodation			Percentage of persons in accommodation without central heating		
			Catholic	Protestant	All	Catholic	Protestant	All
National (all wards)		582	16.1	6.8	10.9	3.5	3.9	3.7
Up to 25% Catholic	All	232	8.7	6.3	6.6	3.4	3.5	3.5
	1	122	6.44	4.03	4.35	2.25	2.64	2.56
	2	56	10.12	7.08	7.41	5.20	3.92	4.06
	3	49	14.37	11.20	11.40	4.80	5.01	5.05
75% and over Catholic	All	130	19.7	10.1	18.9	3.4	5.8	3.6
	2	31	14.65	8.12	13.92	3.80	6.15	4.09

	3	87	21.96	12.34	21.39	3.29	5.88	3.47
--	---	----	-------	-------	-------	------	------	------

**Table 11.8 Percentage of the Two Communities in Higher Level and Routine Occupations by Ward Type**

	Depravn	N of wards	Percentage of working age adults in managerial or professional occs			Percentage of working age adults in routine or semi-routine occs		
			Catholic	Protestant	All	Catholic	Protestant	All
National (all wards)		582	23.3	26.5	25.2	32.2	31.7	31.7
Up to 25% Catholic	All	232	32.3	27.4	28.0	26.8	31.9	31.0
	1	122	37.3	33.6	34.0	22.1	24.9	24.4
	2	56	28.1	24.4	25.0	29.8	34.5	33.6
	3	49	21.3	14.7	15.3	38.5	47.2	46.0
75% and over Catholic	All	130	18.9	22.5	19.2	36.0	33.0	35.7
	2	31	23.4	25.9	23.7	30.9	27.5	30.5
	3	87	16.5	19.5	16.8	38.5	36.3	38.2

**Table 11.9 Percentage of the Two Communities Who Have Never Worked or Who are Long-term Unemployed by Ward Type**

	Depravn	N of wards	Percentage of working age adults who have never worked			Percentage of working age adults who are long-term unemployed		
			Catholic	Protestant	All	Catholic	Protestant	All
National (all wards)		582	6.59	3.56	4.90	2.23	1.23	1.67
Up to 25% Catholic	All	232	3.96	3.15	3.29	1.32	1.19	1.22
	1	122	2.77	2.01	2.15	0.90	0.65	0.69
	2	56	5.12	3.57	3.77	1.66	1.27	1.35
	3	49	6.33	5.59	5.71	2.27	2.47	2.49
75% and over Catholic	All	130	8.15	6.65	8.03	2.85	1.74	2.77
	2	31	5.41	5.46	5.43	1.73	0.95	1.63
	3	87	9.40	7.86	9.30	3.31	2.25	3.25

**Table 11.10 Distribution of Respondents in Ten Groups of Local Authorities**

	Frequency	Column Percent	Percent Catholic	Percent Protestant
Belfast	5772	18.1	38.999	35.014
Ards, N.Down, etc.	3976	12.4	10.010	<b>56.087</b>
Down, Lisburn	3177	9.9	38.023	39.534
Larne etc.	2746	8.6	13.037	<b>53.460</b>
Antrim etc.	2526	7.9	24.861	<b>53.286</b>
Coleraine etc.	2694	8.4	42.205	41.128
Armagh, Newry etc	2711	8.5	<b>62.265</b>	23.423
Banbridge etc.	3100	9.7	42.000	36.194
Derry, Limavdy	2520	7.9	<b>67.063</b>	22.500
Fermanagh etc.	2745	8.6	<b>58.834</b>	27.723
Total	31967	100.0	38.399	39.147

Source 1991 SARs

**Table 11.11 Percent Economically Inactive by Religion overall and within Catholic and Protestant Areas**

Religion	Sex	% Economically Inactive		
		All	In Catholic Areas	In Protestant Areas

Catholic	Male	Mean	19.35	18.69	16.99
		N	3565	1434	418
	Female	Mean	49.65	54.56	43.39
		N	3762	1459	454
	Total	Mean	34.91	36.78	30.73
		N	7327	2893	872
Protestant	Male	Mean	15.49	15.71	15.45
		N	4971	821	1948
	Female	Mean	43.58	46.90	41.49
		N	5445	774	2285
	Total	Mean	30.17	30.85	29.51
		N	10416	1595	4233

Source 1991 SARS

**Table 11.12 Percent Unemployed by Religion overall and within Catholic and Protestant Areas**

		% Unemployed			
Religion	Sex		All	In Catholic Areas	In Protestant Areas
Catholic	Male	Mean	27.27	31.13	15.56
		N	2875	1166	347
	Female	Mean	17.21	17.95	13.23
		N	1894	663	257
	Total	Mean	23.28	26.35	14.57
		N	4769	1829	604
Protestant	Male	Mean	12.74	13.15	10.81
		N	4201	692	1647
	Female	Mean	8.24	08.76	07.26
		N	3072	411	1337
	Total	Mean	10.83	11.51	09.22
		N	7273	1103	2984

Source 1991 SARS

**Table 11.13 Percent without limiting long term illness by Religion overall and within Catholic and Protestant Areas**

		% Limiting long-term illness			
Religion	Sex		All	In Catholic Areas	In Protestant Areas
Catholic	Male	3565	89	89	89
		N	6010	2490	665
	Female	Mean	89	88	91
		N	6265	2503	719
	Total	Mean	89	88	90
		N	12275	4993	1384
Protestant	Male	Mean	87	88	88
		N	7689	1236	3054
	Female	Mean	86	86	87
		N	8469	1199	3496
	Total	Mean	86	87	87
		N	16158	2435	6550

Source 1991 SARS

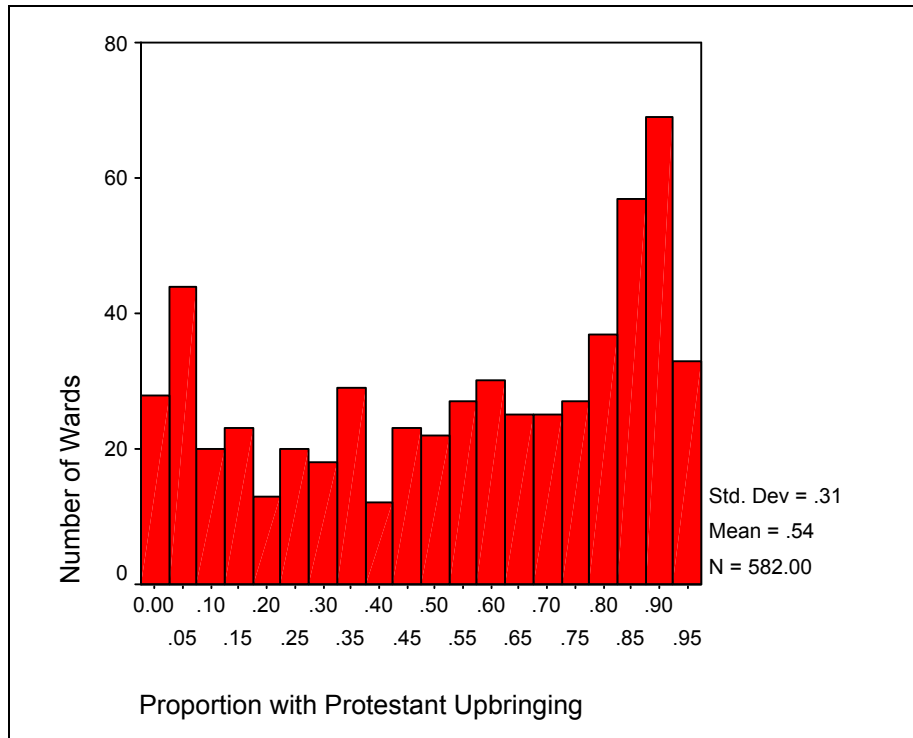
**Table 11.14 Percent with Qualification by Religion overall and within Catholic and Protestant Areas**

		% Any qualification			
	Sex		All	In Catholic Areas	In Protestant Areas
Catholic	Male	3565	10.32	7.47	14.29
		N	3712	1527	427

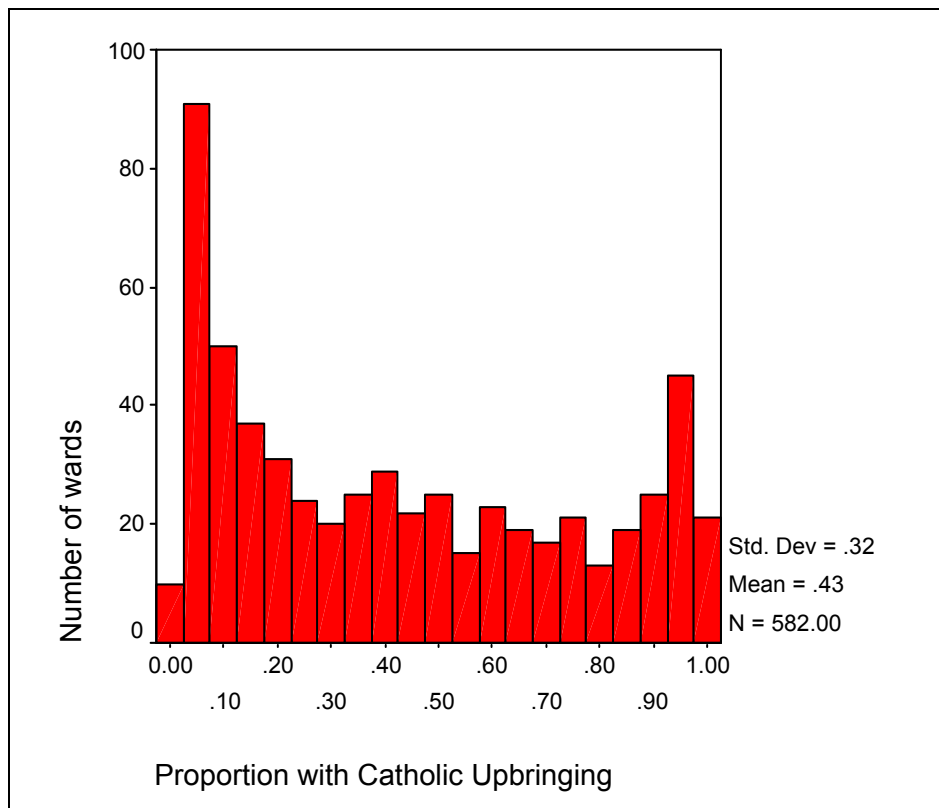
	Female	Mean	7.61	5.99	8.00
		N	3983	1537	475
	Total	Mean	8.91	6.72	10.98
		N	7695	3064	902
Protestant	Male	Mean	10.76	7.22	12.48
		N	5560	873	2195
	Female	Mean	6.23	5.43	5.61
		N	6435	865	2658
	Total	Mean	8.33	6.33	8.72
		N	11995	1738	4853

Source 1991 SARS

**Figure 11.1 Distribution of Proportion of People with Protestant Upbringing**



**Figure 11.2 Distribution of Proportion of People with Catholic Upbringing**



## CHAPTER 12

### MULTIVARIATE ANALYSES

#### KEY POINTS

##### Education

After allowing for other S75 categories, whilst community membership had a small effect on educational qualifications in 1984 (with Protestants performing better than Catholics) there is no effect now.

##### Criminal Justice System

Overall male Protestants are more confident in the criminal justice system. In terms of the specific components of the criminal justice system:

- Police: Protestants have throughout been more confident in the police but this has become accentuated in 2002 for male Protestants
- Lawyers: Initially, Protestants were less confident, but over the ten years there appears to have been some diminution in differentiation between the groups defined by the S75 dimensions.
- Juries: at the beginning of the decade, Protestants were more confident in juries, but by 2002-03 this effect had disappeared and it was male middle class who were more confident
- Judges and Magistrates: there was no discernible effect in 1992-93, but by 2002-03 male Protestants were more confident

##### Health

Several variables are important in affecting health status but neither marital status, living alone, religion nor drinking status enter the equations. Of the ones which enter the regression equations (age, non-manual occupation, equivalent income, worked last week, never smoked), only age is an S75 dimension. Whilst one would not necessarily want to propose that all these other characteristics as dimensions of differentiation should be included in an extension of Section 75, they are important determinants of health.

### 12.1 Introduction

In our literature review we saw that there were several ways of classifying individuals or groups (including the S75 dimensions) and a very large number of ways of measuring human welfare. Most components of welfare are the product of several individual characteristics and are themselves inter-related in complex ways. This calls for the use of statistical methods to estimate the influence of individual factors such as sex, age or race.

We also noted the important distinction between inequality and inequity, or unfairness. Despite the ideal in most countries being equality of opportunity, systems

of equality monitoring are almost invariably constructed using more readily available data on outcomes. It is however sometimes possible to use statistical modelling to control for need or other factors to produce indicators of equity from outcome or process data.

In many areas of public policy it is important to be able to compare the take-up or utilisation of services across racial or age groups to ensure as far as possible that there is no systematic disadvantage across such groups. However it is usually only possible to make very crude bi-variate comparisons (for example utilisation of health services by men and women; employment levels by racial group) that take no account of important differences between the groups such as age, need for services or levels of ability. Very often this leads to erroneous inferences about one group being disadvantaged vis-a-vis another.

We have therefore carried out multivariate analyses for important outcome/policy variables where the cross-tabulations have shown that the outcome varies between the categories of all or several of the S75 dimensions, and where it is likely to be important to understand which of the S75 dimensions has most effect on the variations in the outcome. In particular, there is a concern to identify the extent to which religion/ community membership is important.

The outcome/policy variables that have been chosen for analysis are:

1. population - lone parenthood
2. health -
3. education – achievement in terms of academic qualifications,
4. crime – distrust of criminal justice system
5. employment – whether or not unemployed and current recruitment
6. housing - overcrowding
7. social and welfare- impact of S75 dimensions on utilisation of services.

In general, only those variables approximating the S75 dimensions have been included in the analyses. However there are exceptions:

- Although not an S75 dimension, in several analyses socio-economic group has been included as an important control variable. The exceptions are analyses for educational qualifications and for recent recruitment to employment, where it is argued that the socio-economic group would usually be the *consequence* of education and employment rather than the other way around. Note that the inclusion of socio-economic group has the effect of reducing the number of cases for analysis.
- In other analyses, it was important to include some of the outcome/ policy variables; the obvious example is that lone parenthood is an important impact on overcrowding.

Dimension of Inequality	
Age grouped	AGEGROUP, RAGEGRP2
Sex	SEX
Religion	CATHPROT
Marital Status	RMARSTT, RMARSTAT
Long term illness	RLONGILL, LONGILL

Limiting long term illness	RLLTI, LLTI
Socio-economic group	RRSEG, RSC1
Rural Livelihood	RURALOCC

Because all the variables chosen for analysis are binary, the R squared is calculated differently. The statistic – the Nagelkerke  $R^2$  - may be unfamiliar, but the general interpretation of goodness of fit is the same as with the more conventional  $R^2$ .

## 12.2 Population: Lone Parenthood

The chosen variable is lone parenthood as it enters into a number of policy areas. A wide variety of other possible policy variables could have been considered here – for example use of contraceptives, or ideal family size. The data bases for these analyses are drawn from the Continuous Household Surveys for 1984 and 2002-03.

### 1984 Results

In the 1984 sample, of the 4276 cases included in the analysis, 72 were lone parents. After including the S75 variables (but not marital status), none of the cases were correctly reassigned, but age group and social class were statistically significant at the conventional 5% level, with older people and non-manual socio-economic groups less likely to be lone parents; religion is significant only at the 10% level.

**Table MV.1 S75 dimensions affecting Lone Parenthood in 1984: logistic regression**

	B	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
AGEGROUP	-.389	.100	15.115	1	.000	.678	.557	.825
CATHPROT(1)	-.461	.259	3.168	1	.075	.631	.380	1.048
SEX(1)	-8.829	9.893	.797	1	.372	.000	.000	38567
RRSEG(1)	-.574	.246	5.425	1	.020	.563	.348	.913
RLONGILL(1)	-.563	.401	1.978	1	.160	.569	.260	1.248
RLLTI(1)	-.390	.431	.818	1	.366	.677	.291	1.577
Constant	-.785	.509	2.381	1	.123	.456		

a Variable(s) entered: AGEGROUP, CATHPROT, SEX, RRSEG, RLONGILL, RLLTI.

### 2002/03 results

Of the 3027 cases in the analysis, there were 191 lone parents according to this definition (or 6.3%). After the introduction of the S75 variables, 55 of these (or 28.8%) were correctly predicted. The Nagelkerke R squared was 0.550 and several variables were statistically significant, viz

- Older age groups were less likely to be lone parents
- Catholics were more likely to be lone parents
- Both single and married were less likely to be lone parents compared to divorced, separated or widowed
- Those with a limiting long standing illness were more likely to be lone parents, although only significant at the 10% level

**Table MV.2 S75 dimensions affecting Lone Parenthood in 2002-03: logistic regression**

	B	S.E.	Wald	df	Sig.	Exp(B)
RAGEGRP2	-.665	.098	45.611	1	.000	.514
CATHPROT(1)	.408	.183	4.938	1	.026	1.503

SEX(1)	-9.926	10.697	.861	1	.353	.000
RMARSTT			60.036	2	.000	
RMARSTT(1)	-1.958	.255	58.795	1	.000	.141
RMARSTT(2)	-11.360	9.281	1.498	1	.221	.000
LONGILL(1)	-.348	.332	1.100	1	.294	.706
LLTI(1)	.657	.367	3.211	1	.073	1.929
Constant	2.119	.517	16.812	1	.000	8.319

a Variable(s) entered: RAGEGRP2, CATHPROT, SEX, RMARSTT, LONGILL, LLTI.

Comparing between 1984 and 2002-03, it looks as if Catholics are now more likely to be lone parents.

## 12.3 Employment

### *1992-93 results*

The total number of cases was 2611, of which 257 were recent recruits (in the last six months). After including the S75 dimensions, none of the latter responses was correctly predicted and the Nagelkerke R squared is 0.095. The only statistically significant effects are those with age and sex with, as expected, older people and women less likely to be recent recruits

**Table MV.3 S75 Dimensions affecting recent recruitment (in less than 6 months)**

	B	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
AGEGROUP	.596	.061	95.052	1	.000	1.815	1.610	2.047
CATHPROT(1)	.044	.140	.100	1	.751	1.045	.795	1.374
SEX(1)	.327	.145	5.062	1	.024	1.387	1.043	1.843
RRSEG(1)	.164	.146	1.258	1	.262	1.178	.885	1.567
RLONGILL(1)	.189	.260	.529	1	.467	1.208	.726	2.012
RLLTI(1)	-.187	.353	.280	1	.597	.830	.416	1.657
Constant	-.171	.359	.226	1	.634	.843		

a Variable(s) entered: AGEGROUP, CATHPROT, SEX, RRSEG, RLONGILL, RLLTI.

### *2002 results*

The total number of cases was 1987, of which 257 were recent recruits (in the last six months). After including the S75 dimensions, none of the latter responses was correctly predicted and the Nagelkerke R squared is 0.085. The only statistically significant effects are those with age and sex with, as expected, older people and women less likely to be recent recruits

**Table MV.4 S75 Dimensions affecting Recent recruitment (in less than 6 months)**

	B	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
RAGEGRP2	.560	.065	73.343	1	.000	1.751	1.540	1.991
CATHPROT(1)	.061	.140	.191	1	.662	1.063	.808	1.400
SEX(1)	.398	.141	7.948	1	.005	1.488	1.129	1.962
LONGILL(1)	.386	.216	3.202	1	.074	1.471	.964	2.246
LLTI(1)	.028	.285	.010	1	.922	1.028	.588	1.797
Constant	-.688	.333	4.257	1	.039	.503		

a Variable(s) entered on step 1: RAGEGRP2, CATHPROT, SEX, LONGILL, LLTI.

In both years, religion was not significant.

## 12.4 Education

The chosen outcome measures were whether or not the respondents had any qualifications and whether or not the respondent had A level or above; and how this had changed between 1983 and 2003. Over this period (obviously), the overall level of qualifications had risen (whilst their relative value had fallen), but it still seemed worthwhile to examine whether or not religion had had any effect on either of the outcomes in either of the time periods.

### 12.4.1 Any academic qualifications

#### *Results in 1984*

The analysis was restricted to those aged between 19 and 64. Of the 4583 cases included in the analysis, 971 (or 21.2%) had a qualification. When only the S75 variables were included, 355 of these were correctly predicted (although 336 of those without qualifications were incorrectly predicted to have some) and there was a Nagelkerke R squared of 0.312. Both age group, sex and marital status were statistically significant at the conventional 5% level with older people and men less likely to have a qualification and single or married more likely to have a qualification; religion was only significant at the 10% level.

**Table MV.5 Variables in the Equation**

	B	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
AGEGROUP	-1.008	.046	484.729	1	.000	.365	.333	.399
CATHPROT(1)	-.154	.083	3.434	1	.064	.858	.729	1.009
SEX(1)	-.175	.083	4.446	1	.035	.840	.714	.988
RMARSTAT			5.385	2	.068			
RMARSTAT(1)	.557	.242	5.289	1	.021	1.746	1.086	2.808
RMARSTAT(2)	.510	.229	4.939	1	.026	1.665	1.062	2.609
RLONGILL(1)	.254	.177	2.041	1	.153	1.289	.910	1.825
RLLTI(1)	.025	.216	.013	1	.909	1.025	.671	1.565
Constant	1.678	.312	28.988	1	.000	5.357		

a Variable(s) entered: AGEGROUP, CATHPROT, SEX, RMARSTAT, RLONGILL, RLLTI.

#### *Results in 2002*

The analysis was restricted to those aged between 19 and 64 (Table MV.6). Of the 3027 cases included in the analysis, 2222 (or 73.4%) had a qualification. Including only the S75 variables, 212 of those without a qualification were correctly predicted (21.1%) whilst 136 of those with a qualification were incorrectly predicted not to have one (6.1%) and the Nagelkerke R squared was 0.205. Age group, marital status and LLTI are included as statistically significant:

- Older people are less likely to have a qualification
- Single and married people are more likely to have a qualification than divorced, separated or widowed
- Those with a limiting long standing illness are more likely to have a qualification

**Table MV.6 S75 Dimensions affecting any qualifications in 2002**

	B	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
RAGEGRP2	-.644	.043	220.643	1	.000	.525	.482	.572
CATHPROT(1)	-.170	.091	3.498	1	.061	.844	.706	1.008
SEX(1)	.018	.092	.038	1	.845	1.018	.851	1.218
RMARSTT			35.382	2	.000			
RMARSTT(1)	.515	.157	10.745	1	.001	1.673	1.230	2.276
RMARSTT(2)	.735	.124	35.057	1	.000	2.085	1.635	2.660
LONGILL(1)	-.152	.154	.967	1	.325	.859	.635	1.163
LLTI(1)	.791	.164	23.230	1	.000	2.206	1.599	3.044
Constant	2.881	.259	123.745	1	.000	17.827		

a Variable(s) entered: RAGEGRP2, CATHPROT, SEX, RMARSTT, LONGILL, LLTI.

Religion did have some statistical significance in affecting whether or not a person had any educational qualifications in 1984 but this had disappeared by 2002.

#### 12.4.2 'A' Level or above

1992-93

The analysis was restricted to those aged between 19 and 64. Of the 4611 cases included in the analysis, 400 (or 8.7%) had an A level qualification. When only the S75 variables were included, none of these was correctly predicted and there was a Nagelkerke R squared of 0.165 (Table MV.8). Age group, marital status, whether or not had a longstanding illness were statistically significant with older people less likely to have an A level qualification and single or married and those without a long standing illness more likely to have an A level.

**Table MV.7 S75 Dimensions affecting A Level in 1984**

	B	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
AGEGROUP	-.756	.061	154.348	1	.000	.469	.417	.529
CATHPROT(1)	-.090	.110	.667	1	.414	.914	.736	1.135
SEX(1)	.145	.110	1.738	1	.187	1.156	.932	1.434
RMARSTAT			4.975	2	.083			
RMARSTAT(1)	.898	.407	4.881	1	.027	2.455	1.107	5.448
RMARSTAT(2)	.787	.394	3.983	1	.046	2.196	1.014	4.755
RLONGILL(1)	.778	.306	6.464	1	.011	2.177	1.195	3.965
RLLTI(1)	-.464	.354	1.714	1	.190	.629	.314	1.259
Constant	-.779	.492	2.512	1	.113	.459		

a Variable(s) entered: RAGEGRP2, CATHPROT, SEX, RMARSTT, LONGILL, LLTI.

However, if socio-economic group and employment status were included, there were some significant results. First, 47 (or %) were correctly predicted to have an A level qualification and there was an overall improvement in the equation with a Nagelkerke R squared of 0.332. When significant, the S75 variables were included in the expected direction:

- The likelihood of having an A level qualification decreased with age
- Men were more likely than women to have an A level qualification.

Two other variables were included as significant:

- Although there were significant differences between socio-economic groups, no specific group was statistically significant
- Those with a job were more likely to have an A level qualification.

The problem with these latter results is that we would usually expect the direction of causation to be the other way around!, i.e. higher educational qualifications would lead to a better job and higher socio-economic groups.

2002-03

Of the 3027 cases included in the analysis, 1547 (51.1%) had an A level qualification. After including the S75 variables, 867 of those without a qualification were correctly predicted (58.8%), but 599 of those with a qualification (38.7%) were wrongly predicted not to have one. The Nagelkerke R squared was 0.080; and three variables were statistically significant:

- Older people were *more* likely to have an A level qualification
- Those married were less likely to have a qualification

**Table MV.8 S75 Dimensions affecting A level qualifications in 2002**

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1	RAGEGRP2	.395	.036	121.718	1	.000	1.485
	CATHPROT(1)	.116	.076	2.304	1	.129	1.123
	SEX(1)	.106	.077	1.913	1	.167	1.112
	RMARSTT			5.075	2	.079	
	RMARSTT(1)	-.155	.141	1.215	1	.270	.856
	RMARSTT(2)	-.256	.119	4.638	1	.031	.774
	LONGILL(1)	.233	.128	3.342	1	.068	1.263
	LLTI(1)	-.323	.143	5.111	1	.024	.724
	Constant	-1.415	.222	40.621	1	.000	.243

a Variable(s) entered: RAGEGRP2, CATHPROT, SEX, RMARSTT, LONGILL, LLTI.

### 12.4.3 Interim Conclusions

The results show that, after allowing for other S75 categories, whilst community membership had a small effect on educational qualifications in 1984 (with Protestants performing better than Catholics) there is no effect now.

## **12.5 Crime and Justice: Confidence in System**

The analyses are for confidence in the criminal justice system as a whole; and separately for confidence in the police, lawyers, juries, judges and magistrates in 1992-93 and 2002-03. The analyses are based on the Community Attitudes Surveys for those years.

### 12.5.1 Fairness of system

**{RQ89: The criminal justice system includes the police, lawyers, juries, judges and magistrates. How confident do you feel about the fairness of the criminal justice system?}**

1992-93

In 1992-93, 1941 cases were included of which 370 (19.1%) were not confident in the system. After including the S75 dimensions, none of the not confident was predicted and the Nagelkerke R squared was 0.008. Nevertheless the interaction of sex with community membership/religion was nearly statistically significant with male Protestants tending to be more confident.

**Table MV.9 S75 Dimensions affecting Confidence in Criminal Justice System in 1992-93**

	B	S.E.	Wald	df	Sig.	Exp(B)	Lower CI	Upper CI
RMARSTT			1.133	2	.568			
RMARSTT(1)	.008	.246	.001	1	.973	1.008	.623	1.632
RMARSTT(2)	-.165	.216	.585	1	.444	.848	.555	1.294
PROTCATH(1)	.028	.163	.030	1	.863	1.028	.747	1.415
RURALOCC(1)	-.651	.425	2.345	1	.126	.522	.227	1.200
SEX(1)	.062	.724	.007	1	.932	1.064	.258	4.395
AGEGROUP by SEX(1)	-.096	.060	2.512	1	.113	.909	.807	1.023
RMARSTT * SEX			1.159	2	.560			
RMARSTT(1) by SEX(1)	-.350	.477	.538	1	.463	.705	.277	1.795
RMARSTT(2) by SEX(1)	-.046	.415	.012	1	.912	.955	.424	2.154
PROTCATH(1) by SEX(1)	-.431	.239	3.265	1	.071	.650	.407	1.037
RURALOCC(1) by SEX(1)	.782	.522	2.241	1	.134	2.186	.785	6.085
Constant	-.779	.478	2.662	1	.103	.459		

a Variable(s) entered: RMARSTT, PROTCATH, RURALOCC, SEX, AGEGROUP \* SEX , RHEA2 \* SEX , MARSTT \* SEX , PROTCATH \* SEX , RURALOCC \* SEX .

2002-03

In 2002-03, there were 744 cases of which 179 (24.1%) were not confident with the system. After the introduction of the S75 dimensions as predictor variables, one of the latter was correctly predicted (whilst two of those who were confident were incorrectly predicted and the Nagelkerke R squared was 0.058. Nevertheless, both social class and the interaction of religion with sex were significant with non manual and male Protestants both likely to be more confident in the system.

**Table MV.10 S75 Dimensions affecting Confidence in Criminal Justice System in 2002-03**

	B	S.E.	Wald	df	Sig.	Exp(B)	Lower CI	Upper CI
RHEA2(1)	.398	.331	1.450	1	.228	1.489	.779	2.847
RSC1			7.524	3	.057			
RSC1(1)	-.869	.338	6.600	1	.010	.419	.216	.814
RSC1(2)	-.572	.320	3.189	1	.074	.564	.301	1.057
RSC1(3)	-.956	.608	2.473	1	.116	.385	.117	1.265
RMARSTT			.715	2	.699			
RMARSTT(1)	-.229	.435	.277	1	.598	.795	.339	1.865
RMARSTT(2)	-.288	.358	.648	1	.421	.749	.371	1.513
PROTCATH(1)	.049	.266	.034	1	.853	1.050	.624	1.769
RURALOCC(1)	-.679	.841	.653	1	.419	.507	.098	2.635
SEX(1)	-.057	1.093	.003	1	.959	.945	.111	8.057
AGEGROUP by SEX(1)	.174	.106	2.677	1	.102	1.190	.966	1.465
RHEA2(1) by SEX(1)	.035	.448	.006	1	.938	1.035	.430	2.492
RSC1 * SEX			.801	3	.849			
RSC1(1) by SEX(1)	-.112	.502	.049	1	.824	.894	.335	2.391
RSC1(2) by SEX(1)	.215	.543	.156	1	.692	1.240	.427	3.597
RSC1(3) by SEX(1)	.419	.700	.359	1	.549	1.521	.386	5.994
MARSTT by SEX(1)	-.191	.241	.628	1	.428	.826	.515	1.325

PROTCATH(1) by SEX(1)	-.763	.363	4.422	1	.035	.466	.229	.949
RURALOCC(1) by SEX(1)	.302	.944	.103	1	.749	1.353	.213	8.612
Constant	.219	.959	.052	1	.819	1.245		

a Variable(s) entered: RHEA2, RSC1, RMARSTT, PROTCATH, RURALOCC, SEX, AGEGROUP \* SEX , RHEA2 \* SEX , RSC1 \* SEX , MARSTT \* SEX , PROTCATH \* SEX , RURALOCC \* SEX .

On the whole, the Section 75 dimensions have little effect, although the influence of religion on confidence in criminal justice system appears to have increased over the 1990s.

### 12.5.2 Police

**{RQ89A: Thinking firstly about the *police*, how confident do you feel about the contribution they make to the fairness of this system?}**

1992-93

In 1992-93, there were 2000 cases in the analysis of which 349 (17.5%) are not confident in the police. After including the S75 dimensions, no cases are correctly predicted and the Nagelkerke R squared is 0.084. Nevertheless, marital status, religion and the interactions between age-group and sex and marital status with sex are statistically significant with Protestants overall and older males more confident and a tendency for singles to be less confident than married people but single males more confident

**Table MV.11 S75 Dimensions affecting Confidence in Police in 1992-93**

	B	S.E.	Wald	df	Sig.	Exp(B)	Lower CI	Upper CI
RMARSTT			9.421	2	.009			
RMARSTT(1)	.279	.247	1.276	1	.259	1.322	.814	2.146
RMARSTT(2)	-.288	.227	1.613	1	.204	.750	.480	1.170
PROTCATH(1)	-1.079	.167	41.621	1	.000	.340	.245	.472
RURALOCC(1)	-.554	.502	1.216	1	.270	.575	.215	1.538
SEX(1)	.714	.802	.793	1	.373	2.043	.424	9.841
AGEGROUP by SEX(1)	-.271	.068	15.848	1	.000	.762	.667	.871
RMARSTT * SEX			8.892	2	.012			
RMARSTT(1) by SEX(1)	-.831	.514	2.615	1	.106	.436	.159	1.193
RMARSTT(2) by SEX(1)	.044	.459	.009	1	.923	1.045	.425	2.567
PROTCATH(1) by SEX(1)	.111	.247	.201	1	.654	1.117	.688	1.813
RURALOCC(1) by SEX(1)	.397	.592	.449	1	.503	1.487	.466	4.744
Constant	-.393	.543	.524	1	.469	.675		

a Variable(s) entered: RMARSTT, PROTCATH, RURALOCC, SEX, AGEGROUP \* SEX, MARSTT \* SEX , PROTCATH \* SEX , RURALOCC \* SEX .

2002-03

There are 741 cases in the analysis of which 141 (19.0%) are not confident in the police. After including the S75 dimensions, ten of the latter responses are correctly predicted (whilst 12 of those who were confident are incorrectly predicted) and the Nagelkerke R squared is 0.157. Social class, religion, marital status and the interaction of religion with sex are statistically significant with highest non-manual groups, single and married, Protestants and especially male Protestants more confident in the RQ89A than the other categories

**Table MV.12 S75 Dimensions affecting Confidence in Police in 2002-03**

	B	S.E.	Wald	df	Sig.	Exp(B)	Lower CI	Upper CI
SEX(1)	-.184	1.134	.026	1	.871	.832	.090	7.676
RHEA2(1)		.365	1.896	1	.168	1.653	.808	3.380
RSC1			7.000	3	.072			
RSC1(1)	-.986	.398	6.126	1	.013	.373	.171	.815
RSC1(2)	-.434	.353	1.515	1	.218	.648	.325	1.293
RSC1(3)	-1.073	.694	2.389	1	.122	.342	.088	1.333
RMARSTT			12.865	2	.002			
RMARSTT(1)	-.680	.440	2.386	1	.122	.507	.214	1.201
RMARSTT(2)	-1.163	.368	9.988	1	.002	.312	.152	.643
PROTCATH(1)	-.805	.301	7.155	1	.007	.447	.248	.806
RURALOCC(1)	-1.039	.847	1.506	1	.220	.354	.067	1.860
AGEGROUP by SEX(1)	.100	.122	.668	1	.414	1.105	.870	1.402
RHEA2(1) by SEX(1)	-.383	.519	.544	1	.461	.682	.247	1.886
RSC1 * SEX			1.411	3	.703			
RSC1(1) by SEX(1)	.503	.573	.771	1	.380	1.653	.538	5.079
RSC1(2) by SEX(1)	-.074	.622	.014	1	.905	.928	.274	3.144
RSC1(3) by SEX(1)	.527	.800	.435	1	.510	1.695	.353	8.129
MARSTT by SEX(1)	-.080	.243	.109	1	.741	.923	.573	1.486
PROTCATH(1) by SEX(1)	-.965	.418	5.343	1	.021	.381	.168	.863
RURALOCC(1) by SEX(1)	.542	.966	.314	1	.575	1.719	.259	11.425
Constant	1.245	.980	1.615	1	.204	3.474		

a Variable(s) entered: RHEA2, RSC1, RMARSTT, PROTCATH, RURALOCC, SEX, AGEGROUP \* SEX , RHEA2 \* SEX , RSC1 \* SEX , MARSTT \* SEX , PROTCATH \* SEX , RURALOCC \* SEX .

### 12.5.3 Lawyers

**{RQ89B: How confident do you feel about the contribution *lawyers* make to the fairness of the criminal justice system?}**

1992-93

There are 1937 cases in the analysis of which 429 (22.1%) are not confident in lawyers. After including the S75 dimensions, no cases are correctly predicted and the Nagelkerke R squared is 0.025. Nevertheless, religion and age group by sex are both statistically significant with Protestants and older males less confident in lawyers.

**Table MV.13 S75 Dimensions affecting Confidence in Lawyers in 1992-93**

	B	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
SEX(1)	-1.356	.696	3.799	1	.051	.258	.066	1.008
RMARSTT			2.514	2	.284			
RMARSTT(1)	-.382	.245	2.428	1	.119	.682	.422	1.104
RMARSTT(2)	-.157	.203	.596	1	.440	.855	.574	1.273
PROTCATH(1)	.392	.160	5.985	1	.014	1.480	1.081	2.026
RURALOCC(1)	-.582	.428	1.844	1	.174	.559	.241	1.294
AGEGROUP by SEX(1)	.124	.054	5.299	1	.021	1.132	1.019	1.258
RMARSTT * SEX			3.417	2	.181			
RMARSTT(1) by SEX(1)	.847	.459	3.407	1	.065	2.333	.949	5.735
RMARSTT(2) by SEX(1)	.595	.394	2.288	1	.130	1.814	.838	3.923
PROTCATH(1) by SEX(1)	.090	.238	.142	1	.706	1.094	.686	1.745
RURALOCC(1) by SEX(1)	.428	.500	.730	1	.393	1.533	.575	4.089
Constant	-.834	.478	3.047	1	.081	.434		

a Variable(s) entered: RMARSTT, PROTCATH, RURALOCC, SEX, AGEGROUP \* SEX , MARSTT \* SEX , PROTCATH \* SEX , RURALOCC \* SEX .

2002-03

There are 734 cases in the analysis of which 184 (25.1%) are not confident in the lawyers. After including the S75 dimensions, one of the latter responses was correctly predicted but one of those who were confident were incorrectly predicted and the Nagelkerke R squared is 0.054. Nevertheless, social class and religion are nearly statistically significant with upper manual groups more confident and Protestants less confident.

**Table MV.14 S75 Dimensions affecting Confidence in Lawyers in 2002-03**

	B	S.E.	Wald	df	Sig.	Exp(B)	Lower CI	Upper CI
RHEA2(1)	.401	.337	1.419	1	.234	1.493	.772	2.889
RSC1			4.175	3	.243			
RSC1(1)	-.245	.342	.514	1	.473	.783	.401	1.529
RSC1(2)	-.067	.328	.041	1	.839	.935	.491	1.780
RSC1(3)	-2.080	1.063	3.831	1	.050	.125	.016	1.003
RMARSTT			.896	2	.639			
RMARSTT(1)	.370	.464	.638	1	.425	1.448	.583	3.595
RMARSTT(2)	.161	.382	.179	1	.673	1.175	.556	2.483
PROTCATH(1)	.528	.276	3.669	1	.055	1.696	.988	2.911
RURALOCC(1)	.806	1.117	.520	1	.471	2.238	.251	19.971
SEX(1)	-.689	1.363	.256	1	.613	.502	.035	7.258
AGEGROUP by SEX(1)	.014	.105	.016	1	.898	1.014	.824	1.246
RHEA2(1) by SEX(1)	-.347	.457	.576	1	.448	.707	.289	1.731
RSC1 * SEX			3.952	3	.267			
RSC1(1) by SEX(1)	.307	.505	.370	1	.543	1.360	.505	3.660
RSC1(2) by SEX(1)	.657	.549	1.435	1	.231	1.930	.658	5.657
RSC1(3) by SEX(1)	2.037	1.125	3.278	1	.070	7.670	.845	69.608
MARSTT by SEX(1)	.362	.238	2.325	1	.127	1.437	.902	2.288
PROTCATH(1) by SEX(1)	.108	.378	.082	1	.775	1.114	.531	2.336
RURALOCC(1) by SEX(1)	-.271	1.232	.048	1	.826	.763	.068	8.539
Constant	-2.324	1.229	3.578	1	.059	.098		

a Variable(s) entered: RHEA2, RSC1, RMARSTT, PROTCATH, RURALOCC, SEX, AGEGROUP \* SEX , RHEA2 \* SEX , RSC1 \* SEX , MARSTT \* SEX , PROTCATH \* SEX , RURALOCC \* SEX .

Over the ten years there appears to have been some diminution in differentiation of confidence in lawyers between the groups defined by the S75 dimensions.

#### 12.5.4 Juries

**{RQ89D: How confident do you feel about the contribution *juries* make to the fairness of the criminal justice system?}**

1992-93

There are 1927 cases in the analysis of which 374 (19.4%) are not confident in juries. After including the S75 dimensions, no cases are correctly predicted and the Nagelkerke R squared is 0.014. The only statistically significant effect is that of religion with Protestants more likely to be confident in juries.

**Table MV.15 S75 Dimensions affecting Confidence in Juries in 1992-93**

	B	S.E.	Wald	Df	Sig.	Exp(B)
SEX(1)	.168	.754	.050	1	.823	1.183
RMARSTT			.166	2	.920	
RMARSTT(1)	.099	.254	.153	1	.696	1.104
RMARSTT(2)	.042	.222	.036	1	.850	1.043
PROTCATH(1)	.392	.165	5.681	1	.017	1.480
RURALOCC(1)	-.101	.481	.044	1	.834	.904
AGEGROUP by SEX(1)	.039	.059	.448	1	.503	1.040
RMARSTT * SEX			3.400	2	.183	
RMARSTT(1) by SEX(1)	.482	.478	1.015	1	.314	1.619
RMARSTT(2) by SEX(1)	-.048	.420	.013	1	.909	.953
PROTCATH(1) by SEX(1)	-.243	.246	.976	1	.323	.784
RURALOCC(1) by SEX(1)	-.293	.551	.284	1	.594	.746
Constant	-1.628	.536	9.230	1	.002	.196

a Variable(s) entered: RMARSTT, PROTCATH, RURALOCC, SEX, AGEGROUP \* SEX , MARSTT \* SEX , PROTCATH \* SEX , RURALOCC \* SEX .

2002-03

There are 744 cases in the analysis of which 135 (18.1%) are not confident in juries. After including the S75 dimensions, none of the latter responses was correctly predicted and the Nagelkerke R squared is 0.057. The only statistically significant effect is the interaction of sex and socio-economic group with the male middle class more confident in juries.

**Table MV.16 S75 Dimensions affecting Confidence in Juries in 2002-03**

	B	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
RHEA2(1)	.095	.431	.049	1	.825	1.100	.472	2.562
RSC1			6.720	3	.081			
RSC1(1)	-.979	.504	3.773	1	.052	.376	.140	1.009
RSC1(2)	.100	.401	.062	1	.804	1.105	.503	2.426
RSC1(3)	.463	.630	.539	1	.463	1.588	.462	5.462
RMARSTT			3.323	2	.190			
RMARSTT(1)	-.594	.518	1.317	1	.251	.552	.200	1.523
RMARSTT(2)	-.728	.415	3.076	1	.079	.483	.214	1.089
PROTCATH(1)	.559	.361	2.405	1	.121	1.750	.863	3.548
RURALOCC(1)	-1.297	1.043	1.545	1	.214	.273	.035	2.112
SEX(1)	-.278	1.331	.044	1	.835	.758	.056	10.279
AGEGROUP by SEX(1)	-.084	.126	.444	1	.505	.919	.718	1.178
RHEA2(1) by SEX(1)	-.159	.571	.078	1	.780	.853	.279	2.611
RSC1 * SEX			7.729	3	.052			
RSC1(1) by SEX(1)	1.571	.687	5.228	1	.022	4.810	1.251	18.486
RSC1(2) by SEX(1)	.474	.678	.490	1	.484	1.607	.426	6.065
RSC1(3) by SEX(1)	-.190	.785	.058	1	.809	.827	.178	3.853
MARSTT by SEX(1)	-.238	.289	.677	1	.410	.788	.447	1.389
PROTCATH(1) by SEX(1)	-.390	.462	.713	1	.399	.677	.274	1.674
RURALOCC(1) by SEX(1)	.969	1.147	.714	1	.398	2.636	.278	24.956
Constant	-.221	1.169	.036	1	.850	.801		

a Variable(s) entered: RHEA2, RSC1, RMARSTT, PROTCATH, RURALOCC, SEX, AGEGROUP \* SEX , RHEA2 \* SEX , RSC1 \* SEX , MARSTT \* SEX , PROTCATH \* SEX , RURALOCC \* SEX .

At the beginning of the decade, Protestants were more confident in juries, but by 2002-03 this effect had disappeared and it was the male middle class who were more confident.

### 12.5.5 Judges and Magistrates

**{RQ89E: How confident do you feel about the contribution judges and magistrates make to the fairness of the system?}**

1992-93

There are 1967 cases in the analysis of which 404 (20.5%) are not confident in judges and magistrates. After including the S75 dimensions, no cases are correctly predicted and the Nagelkerke R squared is 0.008. None of the main effects or interaction with sex are statistically significant

**Table MV.17 S75 Dimensions affecting Confidence in Judges and Mgistrates in 1992-93**

	B	S.E.	Wald	df	Sig.	Exp(B)
SEX(1)	.140	.715	.038	1	.845	1.150
RMARSTT			2.772	2	.250	
RMARSTT(1)	-.390	.235	2.755	1	.097	.677
RMARSTT(2)	-.193	.198	.953	1	.329	.824
PROTCATH(1)	.000	.151	.000	1	.998	1.000
RURALOCC(1)	-.239	.441	.293	1	.588	.787
AGEGROUP by SEX(1)	-.037	.060	.395	1	.530	.963
RMARSTT * SEX			.069	2	.966	
RMARSTT(1) by SEX(1)	.114	.464	.061	1	.805	1.121
RMARSTT(2) by SEX(1)	.055	.398	.019	1	.890	1.057
PROTCATH(1) by SEX(1)	-.324	.233	1.928	1	.165	.723
RURALOCC(1) by SEX(1)	-.055	.521	.011	1	.915	.946
Constant	-.838	.487	2.965	1	.085	.432

a Variable(s) entered: RMARSTT, PROTCATH, RURALOCC, SEX, AGEGROUP \* SEX , MARSTT \* SEX , PROTCATH \* SEX , RURALOCC \* SEX .

2002-03

There are 744 cases in the analysis of which 135 (18.1%) are not confident in judges and magistrates. After including the S75 dimensions, none of the latter responses was correctly predicted and the Nagelkerke R squared is 0.057. The only statistically significant effect is the interaction of sex and religion with male Protestants more confident.

**Table MV.18 S75 Dimensions affecting Confidence in Judges and Magistrates in 2002-03**

	B	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
RHEA2(1)	-.128	.407	.099	1	.753	.880	.396	1.954
RSC1			2.470	3	.481			
RSC1(1)	-.097	.386	.063	1	.801	.907	.426	1.934
RSC1(2)	.058	.373	.024	1	.877	1.059	.510	2.201
RSC1(3)	-2.185	1.465	2.224	1	.136	.113	.006	1.987
RMARSTT			2.311	2	.315			
RMARSTT(1)	-.684	.488	1.963	1	.161	.504	.194	1.314

RMARSTT(2)	-.574	.387	2.200	1	.138	.563	.264	1.203
PROTCATH(1)	.387	.313	1.527	1	.217	1.472	.797	2.719
RURALOCC(1)	4.552	8.690	.274	1	.600	94.861	.000	2.3665 E+09
SEX(1)	5.616	8.728	.414	1	.520	274.913	.000	7.3878 E+09
AGEGROUP by SEX(1)	.071	.116	.367	1	.545	1.073	.854	1.348
RHEA2(1) by SEX(1)	.761	.515	2.181	1	.140	2.140	.780	5.872
RSC1 * SEX			3.344	3	.342			
RSC1(1) by SEX(1)	-.124	.578	.046	1	.830	.883	.285	2.741
RSC1(2) by SEX(1)	.435	.612	.507	1	.477	1.546	.466	5.127
RSC1(3) by SEX(1)	2.290	1.521	2.269	1	.132	9.878	.502	194.495
MARSTT by SEX(1)	-.361	.284	1.623	1	.203	.697	.400	1.215
PROTCATH(1) by SEX(1)	-1.060	.410	6.700	1	.010	.346	.155	.773
RURALOCC(1) by SEX(1)	-4.646	8.704	.285	1	.594	.010	.000	246294.952
Constant	-5.724	8.706	.432	1	.511	.003		

a Variable(s) entered: RHEA2, RSC1, RMARSTT, PROTCATH, RURALOCC, SEX, AGEGROUP \* SEX , RHEA2 \* SEX , RSC1 \* SEX , MARSTT \* SEX , PROTCATH \* SEX , RURALOCC \* SEX .

### 12.5.6 Interim Conclusions

Overall male Protestants are more confident in the criminal justice system. In terms of the specific components of the criminal justice system:

- Police: Protestants have throughout been more confident in the police but this has become accentuated in 2002 for male Protestants
- Lawyers: Initially, Protestants were less confident, but over the ten years there appears to have been some diminution in differentiation between the groups defined by the S75 dimensions.
- Juries: at the beginning of the decade, Protestants were more confident in juries, but by 2002-03 this effect had disappeared and it was male middle class who were more confident
- Judges and Magistrates: there was no discernible effect in 1992-93, but by 2002-03 male Protestants were more confident

## 12.6 Health: Different Measures of Health and Disability Status

There are reasonably good data in the field of health and social services, where the existence of good quality survey data at individual level and well-validated formulae relating population characteristics to need at small area level makes it possible to model the influence of a range of factors on health status and on health service utilisation. In a TSN project funded by the HPSS R&D Office, we set out to elucidate equality and equity issues in health and social care in N Ireland. This drew both on published literature and on the results of local research.

Our approach was in two parts:

- re-analysing the data assembled for the suite of studies on needs indicators for health and social care in N Ireland (reported in sub-section XII.8); and
- re-analysing the data from the 1997 and 2001 Northern Ireland Health and Well Being Surveys (NIHWBS) reported in this sub-section).

We re-analysed the data from the 1997 and 2001 Northern Ireland Health and Well-Being Surveys to estimate the extent to which demographic/socio-demographic variables account for variations in health/disability status at individual level. Once

again we paid particular attention to the Section 75 equality dimensions. (We also undertook pseudo-cohort analyses to assess whether there was any change between the two survey years in health status or in the associations between health status and the usual determinants of health status.)

We used multiple logistic regression with health/ disability status as dependent variables<sup>10</sup> and deprivation and the TSN/Equality Group variables as primary independent variables. The analyses were conducted within a multi-level structure with the individual as the base unit, the household as a second level and area values as a third level. Where significant relationships with any of the primary variables were found we explored the extent to which the association concerned was ‘explained’ by relationships between health/disability status and other measures of deprivation.

### 12.6.1 Individual Variables

The results of the analyses with individual variables only are shown in Table MV.19. Overall, the most consistent factors to appear with statistically significant coefficients were:

- age
- non-manual occupation
- equivalent income (adjusted for household size)
- worked last week
- never smoked.

Possibly the most important findings are negative:

- Survey year does not enter the analysis and in fact is usually eliminated very early on, implying that there is no significant difference between the years in the levels of health outcomes or in the associations with the explanatory variables.
- Neither marital status, living alone, religion nor drinking status enters the analysis. It is important to note that these are all variables ‘shared’ by a household and so are most likely to be eliminated when the analysis takes account of the intra-correlations of family membership<sup>11</sup>.
- The Board ‘dummies’ only enter the equation predicting poor health.

The results for the other individual variables are considered in four groups: social demographics; proxies for income and wealth; income and employment; and behavioural and cultural.

#### *Social Demographics*

We have already remarked that marital status and living alone do not enter the equations. Age always enters the equation and is negative for “not limiting long term illness” (as one would expect) but also for the GHQ12 score. This means that

---

<sup>10</sup> Five dependents were used: Long Term Illness, Limiting Long Term Illness, GHQ12 score, good health and poor health.

<sup>11</sup> for example, if I report I am married, in general my spouse will report the same thing

although older people report more long term illness, limiting long-term illness, and not good or poor health generally, they are less likely to report depression. Sex, when it enters the equation is always positive, meaning that while men report more limiting long term illness, women are more likely to be depressed or to report poor health.

*Proxies for Income and Wealth*

The non-owner occupier variable enters all the equations with appropriate signs (negatively for not limiting long term illness and positively for the other four). The number of cars enters the equation positively for limiting long term illness but negatively for the GHQ score and self-reported poor health, so that those without a car are more likely to be unhealthy or depressed. Belonging to a non-manual household always enters the equation as expected with a negative coefficient for long term illness and for both not good health and poor health, but with a positive coefficient for limiting long term illness.

*Income and Employment*

Equivalent income is positive for not limiting long term illness and negative for self-reported poor health as one would expect. There are similar results for the economic inactivity variable. However, whether or not worked last week is always the more statistically significant variable with the appropriate negative signs except for not limiting long-term illness.

**Table MV.19 Fixed Coefficients of individual variables only in M-L Estimation**

	Long term illness		Not Limiting long term illness		Depressed (GHQ score)		Not Good health		Poor health	
	N of observations									
	7110		7110		5284		7110		7110	
	Coeff	S.e.	Coeff	S.e.	Coeff	S.e.	Coeff	S.e.	Coeff	S.e.
Year (1='97; 2 = '01)										
Sex (1 =M; 2 = F)			.02489	.00949	.0775	.01353			.04547	.01119
Age	.00821	.00034	-.00496	.00031	-.002766	.00044	.00229	.00027	.00734	.00033
Marital Status										
Living Alone										
Number of cars			.0232	.00715	-.0268	.01607			-.0532	.00846
Non Manual	-.03819	.01101	.0248	.01008	.03673	.01452	-.04921	.00856	-.07733	.01208
Equivalent Income*			.00481	.00148					-.01071	.00172
Economically Inactive			-.05465	.02042			.03647	.01802		
Worked Last Week	-.1393	.01238	.2171	.01955	-.1345	.01518	-.1645	.01715		
Non Owner Occupier	.02581	.01303	-.04659	.01279	.03802	.01908	.04273	.01035	.06086	.01515
Catholic/Protestant										
Never Smoked			.02494	.00970	-.03546	.01417	-.02656	.00852	-.05421	.01159
Drinker										

### *Behavioural and Cultural Variables*

We have already remarked that neither religion nor drinking behaviour enters the equations. However whether or not ever smoked enters four of the equations with appropriate signs.

#### 12.6.2 Area Variables

Table MV.20 shows the results of the regression equations when area variables are introduced. It can be seen that on the whole, the individual variables that were statistically significant remain significant with only slightly changed coefficients. The exceptions to this are:

- Non-owner occupier is eliminated with long term illness, depression
- Non-manual is eliminated with limiting long term illness
- Economically inactive is eliminated from the Not Good Health equation.

Given that a large number of area variables (78) were considered it is perhaps striking that only sixteen ever enter any of the equations and eleven of those only enter in one of the five equations.

*IMD scores:* The health score and the housing score enter one equation each and the latter clearly substitutes at least in part for the non-owner occupier variable. The health score does not enter any of the equations.

*Health Related Variables:* The two permanent sickness variables enter the limiting long term illness equation with opposite signs but nearly equal coefficients.

*Income and Poverty:* one of the car ownership variables enters the equation for depression. Two of the three income support variables enter the equation for depression with opposite but nearly opposite signs; although the family credit variables enters the equation for limiting long term illness with the appropriate sign.

*Cultural Variables:* the proportion of Catholics in an area enters the equation only once.

**Table MV.20: Fixed Coefficients in Multi-Level Estimation with individual and area variables**

	Long term illness		Not Limiting long term illness		Ghq12fin		Not Good health		Poor health	
	N of observations		N of observations		N of observations		N of observations		N of observations	
	Coeff	S.e.	Coeff	S.e.	Coeff	S.e.	Coeff	S.e.	Coeff	S.e.
									-.03787	.01247
<b>INDIVIDUAL variables</b>										
Year (1='97; 2 = '01)										
Sex (1 =M; 2 = F)			.0481	.00942	.07788	.0135				
Age	.00824	.00033			-.00281	.0004	.00247	.00026	.00541	.00035
Marital Status										
Living Alone										
Number of cars			.03882	.00687	-.02695	.0102			-.03649	.00848

Non Manual	-.03421	.01108			.03447	.0146	-.0428	.00860	-.06236	.0118
Equivalent Income			.00577	.00147					-.00439	.00174
Economically Inactive			-.1484	.01981						
Worked Last Week	-.1432	.01205	.215	.0198	-.1379	.0160	-.01903	.00958	-.0192	.01329
Non Owner Occupier							.03034	.01057	.03226	.01512
Catholic/Protestant										
Never Smoked			.01933	.00981	-.03415	.0142	-.02433	.00850	-.04514	.0113
Drinker										
AREA variables										
Health score							.03193	.00587		
Housing Score					-.568	.17				
R68 car31					.04006	.0152				
R73: ethnc53							1.983	.9873	3.992	1.386
R84: psick1			-.1551	.07629						
R85: psick2			.206	.08052						
R86: studen91					.1005	.0412				
R90: sc141					.1629	.0710				
R91: sc142			.06152	.02811						
R92: sc143			-.09712	.03359	-.2167	.0823			-.03746	.01339
R94: sc145			.1251	.05596						
R95: ndenomin			-.01788	.6614						
R101: isgt65					-.08215	.0317				
R103: istotal					.09788	.0296				
R118: ethnic2							.4883	.1896		
R125: nfcredit			.1846	.0753						

### 12.6.3 Role of Equality Dimensions

Generally, in terms of the Section 75 indicators, the pattern of results was much sparser than in an earlier report that did not analyse the two years together and did not use multi-level modelling (Miller et al, 2003).

Table MV.7 summarises the results of our analyses in respect of the S75 categories. Marital status, living alone, religion, minority group membership and whether or not drinking did not have an impact at the individual level. These are all variables ‘shared’ by a household and so are most likely to be eliminated using this kind of analysis.

**Table MV.21. Coefficients on S75 Dimensions at Individual and Area Level**

	Self-assessed health				GHQ score				Limiting Long Term Illness			
	ARK		CH/JJ		ARK		CH/JJ		ARK		CH/JJ	
	I	A	I	A	I	A	I	A	I	A	I	A
Age	P	Ni	P	ni	Ns	ni	N	ni	P	ni	P	ni
Sex (gender)	N	Ni	Ns	ni	N	ni	P	ni	Ns	ni	N	ni
Marital Status	P	Ni	ns	ni	P	ni	ns	ni	P	ni	Ns	ni
Religion	P		ns		Ns		ns		P		Ns	P
Racial Group	ns		ns	P	Ns		ni	ns	ns		Ns	Ns
Disability	ns		ni		Ni		ni		Ni		Ni	
Dependants	ni		ns	ns	Ns		ns	ns	Ns		Ns	Ns

Political Opinion	ni	Ni	ni	ni	Ni	ni	ni	ni	Ni	ni	Ni	Ni
Sexual Orientation	ni	Ni	ni	ni	Ni	ni	ni	ni	Ni	ni	Ni	Ni

Notes: ns = non-significant; ni = not included; P – positive and statistically significant; P – negative and statistically significant; I – individual variables; A – area variables

### 12.6.4 Interim Conclusion

Several variables are important in affecting health status but neither marital status, living alone, religion nor drinking status enter the equations. Of the ones which enter the equations (age, non-manual occupation, equivalent income, worked last week, never smoked), only age is an S75 dimension. Whilst one would not necessarily want to propose that all these other characteristics as dimensions of differentiation should be included in an extension of Section 75, they are important determinants of health.

## 12.7 Housing: Overcrowding

### 1984

Restricting our analysis to those aged 19-64 inclusive, we had 4276 cases of which 1943 (45.4%) were living in overcrowded accommodation. After including the S75 dimensions 1288 (66.3%) of the latter were correctly predicted but 421 of those who were not overcrowded were predicted to be so (18.1%), and the Nagelkerke R squared was 0.397. Age, number of children in the household, religion, socio-economic group and lone parenthood were all statistically significant with older people and upper non-manual groups less likely to be overcrowded and households with more children, Catholics and lone parents more likely to be overcrowded.

**Table MV.22 S75 Dimensions affecting overcrowding in 1992-93**

	B	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
AGEGROUP	-.139	.030	21.510	1	.000	.870	.821	.923
NCHILD	1.057	.039	740.920	1	.000	2.876	2.666	3.104
CATHPROT(1)	.584	.076	59.185	1	.000	1.793	1.545	2.081
RRSEG(1)	-.718	.080	80.517	1	.000	.488	.417	.570
SEX(1)	-.040	.079	.256	1	.613	.961	.823	1.122
RLONGILL(1)	-.151	.136	1.225	1	.268	.860	.659	1.123
RLLTI(1)	.133	.158	.707	1	.400	1.142	.838	1.558
LONEPRNT(1)	.846	.277	9.369	1	.002	2.331	1.356	4.009
Constant	-1.430	.321	19.825	1	.000	.239		

a Variable(s) entered on step 1: AGEGROUP, NCHILD, CATHPROT, RRSEG, SEX, RLONGILL, RLLTI, LONEPRNT.

### 2002

There were 3027 cases for analysis of which 748 (24.7%) were living in overcrowded accommodation. After including the S75 dimensions 374 (50%) of the latter were correctly predicted, but 173 of those not in overcrowded accommodation (7.6%) were wrongly predicted to be so and the Nagelkerke R squared was 0.379. Age, number of children in the household, religion and lone parenthood were statistically significant with older people and Protestants less likely to be overcrowded and households with more children, males and lone parents more likely to be overcrowded.

**Table MV.23 S75 Dimensions affecting overcrowding in 2002-03**

	B	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
RAGEGRP2	-.238	.055	18.556	1	.000	.788	.707	.878
NUMCHILD	1.084	.054	399.137	1	.000	2.956	2.658	3.288
CATHPROT(1)	.519	.102	25.950	1	.000	1.681	1.377	2.053
SEX(1)	-.030	.107	.079	1	.778	.970	.786	1.198
RMARSTT			8.939	2	.011			
RMARSTT(1)	.519	.234	4.922	1	.027	1.681	1.062	2.659
RMARSTT(2)	.667	.223	8.935	1	.003	1.948	1.258	3.017
LONEPRNT(1)	.564	.234	5.796	1	.016	1.757	1.111	2.781
LONGILL(1)	.233	.186	1.575	1	.209	1.263	.877	1.817
LLTI(1)	-.284	.211	1.806	1	.179	.753	.498	1.139
Constant	-2.578	.378	46.475	1	.000	.076		

a Variable(s) entered on step 1: RAGEGRP2, NUMCHILD, CATHPROT, SEX, RMARSTT, LONEPRNT, LONGILL, LLTI.

If we also include socio-economic group in the analysis, the number of cases is reduced to 2044 of which 504 were living in overcrowded accommodation (24.7%). After including the S75 dimensions 219 of the latter (43.5%) were correctly predicted, but 111 of those not in overcrowded accommodation (7.2%) were wrongly predicted to be so and the Nagelkerke R squared was 0.363. Age, number of children in the household, social class, religion, marital status and lone parenthood were all statistically significant with older people, non-manual groups and Protestants less likely to be overcrowded and households with more children, males and lone parents more likely to be overcrowded.

**Table MV.24 S75 Dimensions affecting overcrowding in 2002-03 including SEG**

	B	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
RAGEGRP2	-.251	.069	13.317	1	.000	.778	.680	.890
NUMCHILD	1.020	.065	245.118	1	.000	2.774	2.441	3.152
RRSEG(1)	-1.051	.133	62.180	1	.000	.350	.269	.454
CATHPROT(1)	.515	.122	17.724	1	.000	1.674	1.317	2.127
SEX(1)	-.256	.133	3.706	1	.054	.774	.596	1.005
RMARSTT			7.940	2	.019			
RMARSTT(1)	.575	.327	3.090	1	.079	1.777	.936	3.375
RMARSTT(2)	.829	.307	7.310	1	.007	2.291	1.256	4.178
LONEPRNT(1)	.776	.371	4.360	1	.037	2.172	1.049	4.497
LONGILL(1)	.143	.213	.453	1	.501	1.154	.761	1.750
LLTI(1)	-.204	.267	.582	1	.445	.816	.484	1.376
Constant	-2.144	.510	17.687	1	.000	.117		

a Variable(s) entered on step 1: RAGEGRP2, NUMCHILD, RRSEG, CATHPROT, SEX, RMARSTT, LONEPRNT, LONGILL, LLTI.

## 12.8 Use of Health and Personal Social Services

Our objective here was to explore the presence of inequalities at small area level across as many as possible of the TSN/Equality Group dimensions within the various HPSS Programmes of Care, using the databases constructed as part of the process of developing needs based geographical allocation formulae.

In practice it was only feasible to test three of the TSN/Equality Group variables (denomination, the proportion of older people in the population and disability status, the last proxied by levels of limiting long term illness). We used multiple linear

regression with service utilisation as dependent variable and the three Equality dimensions as primary independent variables. Where significant relationships with any of the primary variables were found we investigated the extent to which the association concerned could be 'explained' by relationships between utilisation and established measures of need, including morbidity and/or deprivation. We here concentrate on three Programmes of Care: acute, family & child care and mental health.

### 12.8.1 By religion

Table MV.25 shows that after controlling for the needs variables, religious denomination was found to have an impact on the utilisation of acute, children's and mental health services.

**Table MV.25 Effect of Religious Denomination on Utilisation by PoC**

Programme of Care	Raw Correlation	Regression Coefficient	Reg Coeff after controlling for:	
			Board or Trust Dummies	Dummies + Needs variables
Acute	-0.349**	-.0596**	-.0697**	-.015*
Family and Child Care	-0.079	-0.0635	-0.0334	0.200**
Mental Health	-0.380**	-0.00628**	-0.0574**	-0.0375**

(\* Sig at 0.05; \*\* Sig at 0.01; \*\*\* Sig at 0.001)

### 12.8.2 By the elderly

After controlling for the needs variables the proportion of elderly people in the population of a small area had a negative effect on the utilisation of acute services (Table MV.26).

**Table MV.26 Effect of Proportion of Elderly on Utilisation by PoC**

	Raw Correlation	Regression Coefficient	Reg Coeff after controlling for	
			Board or Trust dummies	Dummies + Needs variables
Acute	-0.168**	-.00916**	-.0110**	-.00558**
Children	-0.024	-0.00565	-0.0162	-0.0065
Mental Health	-0.224**	-0.00925**	-0.0925**	-0.00683

### 12.8.3 Long Term Illness (LTI)

The proportion of 0-64 year olds with LTI was found to have a (negative) effect on the utilisation of acute services even after controlling for the needs variables, but for none of the other utilisation dependents (Table MV.27).

**Table MV.27 Long Term Illness 0-64**

	Raw Correlation	Regression Coefficient	Reg Coeff after controlling for	
			Board or Trust dummies	Dummies + Needs variables
Acute	0.585*	0.416*	0.429**	0.0924*
Children	0.469*	0.0167*	0.0188**	-0.00264
Mental Health	0.556**	0.397**	0.369**	0.0980

## ANNEX: OMITTED CATEGORIES

### 1 Introduction

In addition to the large inequalities shown by socio-economic groups in section 9, there are a number of other groups that do not feature specifically in the Section 75 legislation but where one might/ought to be concerned. Here we consider the situation of Irish Travellers, Refugees and Asylum Seekers, Migrant Workers and the particular problems of those living in rural areas

### 2 Irish Travellers

Irish Travellers have a long shared history and value system including their own language, customs and traditions. The distinctive Traveller lifestyle and culture, based on a nomadic tradition, sets Travellers apart from the sedentary population or 'settled people' (Pavee, 2002).

A Traveller Health Strategy published by the Department of Health and Children in the Republic of Ireland (2002) provides a comprehensive review of the disadvantages faced by many Travellers in relation to accessing health and social services. The strategy also outlines a wide range of proposed actions. Whilst the strategy relates to the experience of Travellers in the Republic of Ireland, many of the issues raised are also of relevance to Travellers in Northern Ireland.

In relation to uptake and access to health and social services, the Traveller Health Strategy highlights the:

- lack of awareness amongst Travellers of **preventative health services** (for example, immunisation, screening programmes).
- lack of access to **health and social care information** (for example, health promotion, family planning) in appropriate formats (leaflets/booklets are often unhelpful given the low levels of literacy in the Traveller community).
- low level of uptake in certain **maternity services** including ante-natal and post-natal care amongst Traveller women (despite high fertility rates amongst Traveller women).
- low uptake of **family planning and sexual health services**.
- low uptake of **children's services** particularly child immunisation programmes and developmental paediatric services.
- lack of information on **Traveller men's health** needs.
- lack of information regarding Traveller **uptake in services** such as ophthalmics, hearing services, mental health services, speech and language therapy.
- lack of information on **Travellers with disabilities**. Disabled Travellers are often an invisible sub-group within the Traveller community, which can prevent access to support services such as home helps, occupational therapy and physiotherapy.
- lack of research in regards to **alcohol and drug misuse** in the travelling community. Anecdotal evidence suggests that young Travellers are being excluded from youth clubs and other such facilities and that this form of social isolation can lead to drugs and alcohol misuse.

In addition to these issues, the Traveller Health Strategy also reveals that:

Little is known about the effects of **consanguineous marriages** (for example, marriages between cousins) in the Traveller community. Given the fact that many Travellers have for successive generations chosen to marry within their own communities, there is clearly an increased risk of a rare gene mutation occurring (28 Information extracted from Pavee web page on Travellers and Consanguinity).

Pavee, an organisation committed to the needs of Irish Travellers, identifies the need for sensitive genetic counselling in this area.

- In relation of **primary care** - GPs are often reluctant to make house calls to Traveller camps. Many Travellers are also reluctant to sit in GP surgeries or health clinics because of the hostilities from the settled population. The strategy highlights that often there are inadequate waiting facilities for women with small children in GP and health care facilities and that low levels of literacy amongst Travellers can make GP registration and other form filling difficult.
- There are also additional identified problems such as difficulties in accessing health care facilities due to **lack of transport**.
- **Continuity of care** is problematic as Travellers are often on the move and will see more than one GP during the course of a year.
- Traveller women suffering from **domestic abuse** experience difficulties in accessing appropriate services (due to institutional discrimination in accessing GP, Accident & Emergency services, and crisis services).
- the **nomadic lifestyle** of Travellers has implications for, registering with GPs, the issuing of hospital appointment letters and the maintenance of patient health records.

Many of the issues raised in the Republic of Ireland's Traveller Health Strategy (such as inequity of access to services and higher mortality and morbidity rates in the Traveller community) have also been identified in the final report of the Northern Ireland Promoting Social Inclusion (PSI) Working Group on Travellers. The Working Groups set 33 detailed recommendations in its report including inter-departmental recommendations and recommendations relevant to the DHSSPS and other statutory health and social service providers.

It is notable that much work has already been carried out in order to address these recommendations. The publication of the Racial Equality in Health Good Practice Guide, the commissioning by the DHSSPS of a Traveller Community Health Care Programme, and participation in an all Ireland Traveller Health Study in partnership with the Department of Health and Children in the Republic of Ireland are but a few examples of work in this area.

### **3 Refugees and asylum seekers**

McVeigh (2002) estimates that there are approximately 2,000 asylum seekers and refugees (he notes that whilst the terms "asylum seeker" and "refugee" are used interchangeably in every day discussions, asylum seekers and refugees actually differ in terms of status. An asylum seeker is someone who is waiting for their application for refugee status to be considered by the Government, whilst refugees are those whose applications have been successful) in Northern Ireland from around 30 different countries. Many of these people have endured acute hardship or have

experienced physical and sexual abuse and other forms of persecution in their country of origin.

Through the use of secondary data, interviews, questionnaires and group discussions, McVeigh (2002) identifies a number of recurring problems in relation to refugees and asylum seekers and their access to health and social services.

The first problem relates to interpreting and translation provision and the fact that many asylum seekers and refugees are often unaware of the availability of professional interpreters. The second relates to the “screening” of asylum seekers and refugees for communicable diseases. McVeigh (2002) highlights that this process could leave the HPSS vulnerable to accusations of racial prejudice. McVeigh (2002) suggests that whilst people do not object to being screened, it is the way in which it is conducted which could cause difficulties. McVeigh (2002) argues that advocacy and interpretation services must be provided when a person is screened, as the provision of these services is crucial to the notion of consent to examination.

Further gaps in service provision for asylum seekers and refugees relate to the lack of appropriate counselling and support services. O’Neill (2001:95), for example, suggests asylum seekers have a range of special needs over and above those of minority ethnic groups in general for a number of reasons:

- they are involuntary migrants.
- they suffer from insecurity and loss of identity because of their experiences.
- they have worries about family/friends left behind in their home country.
- they fear the “long arm” of their home government.
- they may have particular medical/psychological problems on account of their experiences, especially in cases of torture and rape.

McVeigh (2002) notes that there is lack of refugee and asylum seeker specific services in the statutory sector and suggests that appropriate services need to be put in place. The DHSSPS has begun to recognize these needs and is currently taking steps to address the relevant issues. This includes the recent publication of policy guidance in relation to asylum seekers and refugees (DHSSPS: 2003).

#### **4 Migrant Workers**

Two recent studies (Soares, 2002; Bell *et al*, 2003) have explored the lives of migrant workers in Northern Ireland. Bell *et al* (2003:3) define a migrant worker as, “*an individual who arrives in the host country either with a job to go to or with the intention of finding one*” Note that there are a number of different and distinct categories of migrant workers or non-nationals who have varying rights to work in Northern Ireland; for further details see Bell *et al* (2003:3). Both studies highlight that migrant workers have become increasingly visible in Northern Irish society with Bell *et al* (2003:5) suggesting that this may continue due to EU enlargement.

The variety of different categories of migrant workers (some of whom require documentation whilst others do not) means that it is difficult to determine with accuracy the exact number of migrant workers currently in Northern Ireland (Bell *et al*, 2003:4) Although as Bell *et al* (2003:4) note, Census data, the Labour Force Survey and Data on Work permits do give some indication of the number of migrant workers. What is known, however, is that migrant workers are employed in a wide

range of sectors here including food processing, agriculture, nursing and health care, education, hospitality and catering. They are spread over a wide geographical area. There are, for example, Portuguese communities in Dungannon and Portadown and other nationalities employed in food processing factories in Ballymena, Coleraine and elsewhere. Attention has recently been drawn to the lack of interpreters for a small but increasing number of Russian-speakers in Omagh. The Omagh Ethnic Community Support Group estimate that there are currently around 50 people from Russia and the Eastern Bloc countries in Omagh, many of which are workers in the area's meat factories. It is suggested that the lack of interpreters is preventing access to statutory services such as health and social care (Irish News Article, 23/09/04).

There are migrant workers employed in farm and agricultural businesses in Newtownards, Portadown and the border areas. Many migrant workers are also employed in various hotels across Northern Ireland and many HSS Trusts have employed health care workers, particularly nurses, from other countries (Bell *et al*, 2003:4).

Bell *et al* (2003:67-68) identify two particular barriers experienced by migrant workers in attempting to access health and social services. These difficulties include the lack of information on how and where to access services, and the problems in accessing services due to language barriers. Many migrant workers were not aware of the structure of HPSS in Northern Ireland. For example, some migrant workers attended A&E Departments and minor injuries units because they did not know how to register with a GP or are not aware that GPs act as gatekeepers to other services. There is also an issue of the lack of awareness by HPSS staff on the entitlements of migrant workers to health and social care.

In addition there are several language barriers:

- Many migrant workers were often unaware of the interpreting services they were entitled to. For example, a dentist was unaware that he could provide a Portuguese man with an interpreter and the client had to use an English/Portuguese dictionary to describe his symptoms.
- Proficiency in the English language was an important factor in GP registration. In the survey conducted by Bell *et al* (2003) GP registration by migrant workers varied according to profession and English proficiency. A total of 93% of nurses and 100% of academics participating in the survey had registered with a GP. However, only 73% of factory workers did so. A total of 92% of respondents who spoke fluent English had registered with a GP, compared to only 68% of people who did not speak English.
- Receiving letters detailing appointments in the English language was also problematic resulting in people missing appointments because they could not understand the correspondence.

## **5 Rurality and access to services**

Very little Northern Ireland-based research exists (with the exception of Holder & Lanao, 2002;2003), which explores the barriers in accessing health and social services experienced by Black and Minority Ethnic people in rural areas.

Research conducted by de Lima (2001)<sup>33</sup> into Black and Minority Ethnic communities in Scotland does, however, identify a number 33 study cited in "*Fair*

*Shares For All*”, NHS Scotland of barriers in service accessibility in rural Scotland which may be of relevance in a Northern Ireland context.

Many of the issues highlighted by the de Lima (2001) study have been reiterated in a series of focus groups conducted by Holder & Lanao (2002; 2003) which explored the experiences of women living in rural areas of Fermanagh and Mid Ulster. The focus groups, however, also highlighted that mental health difficulties were an additional problem for Black and Minority Ethnic people living in rural areas. Many of the women participating in the groups believed that social isolation in rural areas often gave rise to mental health problems and this was especially problematic for Black and Minority Ethnic women. Participants felt that isolation led to depression and that Black and Minority Ethnic women living in rural areas often had no-one to turn to for help.