Education, Religion and the "First Destinations" of Recent School-Leavers in Northern Ireland

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Abstract: Data from a cross-section survey of recent school-leavers in Northern Ireland are used to examine the relationship between family and educational background and "first destinations", approximately 6 to 9 months after leaving school. Six destinations are distinguished — employment, Youth Training Programme schemes, unemployment, higher education, further education and other inactivity. Particular attention is paid to the roles of religion, qualifications and subject choice. Nested logit models are estimated and subjected to a range of mis-specification tests. The results suggest that, after controlling for a standard set of explanatory variables, religion and the number of qualifications, but not subject choice, are significant in explaining post school destinations. In particular, Catholic males who leave from fifth and lower-sixth form are significantly less likely to be employed and more likely to be on a YTP scheme.

I INTRODUCTION

Differential labour market outcomes by religion in Northern Ireland have persisted for at least the past quarter century (Smith and Chambers, 1991). The continuation of these large differentials — whether in terms of economic activity, employment or unemployment rates, or occupational structure — is remarkable given the recent significant changes in the society and economy of Northern Ireland. These include massive de-industrialisation and economic recession, institutional developments such as the expansion of the education and training systems, and the legislative interventions of the 1976 and 1989 Fair Employment Acts which were

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designed to achieve equality of opportunity by religion.

In this paper we examine differences by religion in the "first destinations" of recent school-leavers in Northern Ireland. This particular group is important on three counts. First, research in both the Republic of Ireland and Britain has demonstrated the links between early disadvantage and its likely continuation in later life (Breen, 1991; Bates and Riseborough, 1993). Though initial inequalities do not "set in stone" later life chances, they do have a substantial effect on the growth of later differentials. Second, much of the debate in Northern Ireland (Compton, 1991; Smith and Chambers, 1991) has been about the adult male labour market. In this context it is possible to dismiss inequalities among adults as being a historical relic of educational and labour market failures in the 1940s and 1950s. An analysis of the situation of contemporary young people shows the extent to which inequality is being reproduced under present-day conditions in Northern Ireland. Finally, little is known about how the increased participation of young people in further and higher education and Youth Training Programme (YTP) training schemes has influenced the balance of religious inequality in Northern Ireland.

We examine the relationship between family and educational background and the "first destinations" of recent school-leavers in Northern Ireland using the Secondary Education Leavers' Survey (SELS). Six destinations are distinguished: employment; YTP schemes; unemployment; further education; higher education; and other inactivity.[1] In this paper we pay particular attention to the first three destinations — employment; YTP schemes; and unemployment. In our econometric models we include a large number of so-called "structural" factors including the number of exam passes and subject type which apart from religion may account for the observed differences in outcomes between Catholic and Protestant school-leavers.[2]

II BACKGROUND

Some background Census data are set out in Tables 1 and 2. The data show the economic activity of young people by religion in 1971 and 1991. They show that religious differentials have not diminished over this 20 year period. Even though employment rates have fallen for both Catholics and Protestants, religious differentials in employment rates have been main-

1.   Youth Training Programme (YTP) schemes last for up to two years. They are open to 16 and 17 year olds, including some employees, with a higher age limit in some cases. Training is provided on the job, at colleges of further education or at the premises of other training providers.

2.   In this paper we use the term Protestant to refer to members of Other Denominations i.e., all those who are not Catholic.

tained or have even increased. Religious differentials in unemployment rates have also persisted. Moreover new differentials, with greater Catholic partici- pation in education and YTP and other schemes, have developed in 1991. In the case of education, this reverses the 1971 differential when Protestants had a greater propensity to stay-on in education. These tables do not show the significant effects of gender. In particular, Catholic males are signifi- cantly more likely to be on a scheme and Catholic females are more likely to be economically inactive.

The persistence of religious differentials, and their expression in new forms in 1991, is in some ways surprising. First, de-industrialisation has transformed the Northern Ireland economy by removing jobs in Protestant- dominated heavy industry. Some observers forecast that this should have eroded religious differentials (Cormack *et al.*, 1980). Second, increased participation in further and higher education over the period 1971 to 1991 might also have reduced religious differentials. The argument that the poorer educational background of young Catholics largely accounts for their higher unemployment rate appears to be questionable since there is evidence that Catholic educational participation is now higher than for Protestants, although the argument is more plausible for older Catholics.

The analysis of the impact of educational qualifications on labour market outcomes is therefore significant for two reasons. First, it has been argued that formal educational qualifications are now more influential in guiding the transition from school to work or other forms of education (Ashton *et al.*, 1990). Second, the expansion of the Northern Ireland education and training systems has meant that qualifications are held increasingly widely and equally among the younger adult population. In this paper we examine the effect of the number and type of educational qualifications on "first destinations" and see whether significant religious differences in outcomes remain when education and other background factors are taken into account.

There are strong empirical links between labour market outcomes and educational attainment (Murphy and Armstrong, 1994; Payne, 1987) that makes education a key explanatory variable in the analysis of religious differentials. Most analyses have examined education in terms of either the number of exams passed or the highest qualification gained. However, the subject type of qualification gained has also been assumed to be important with scientific, mathematical and technical subjects having particular utility in the labour market. In addressing religious differentials in labour market outcomes in Northern Ireland, Osborne *et al.* (1991) have pointed to the lower Catholic uptake of science and mathematics, and the consequent shortfall in the Catholic stock of human capital, as one possible explanatory factor. Employers may use qualifications in specific subjects as a measure of human

Table 1: *Economic Activity of Young People in Northern Ireland in 1971*

Age	Catholics				Protestants			
	Employment	Unemployment	Education	Other	Employment	Unemployment	Education	Other
	%	%	%	%	%	%	%	%
16	39.4	5.3	50.5	4.8	41.0	2.8	53.0	3.2
17	53.3	7.0	36.4	3.3	55.7	3.7	37.9	2.7
18	63.3	9.3	23.9	3.5	64.8	4.8	26.3	4.1
19	66.6	9.8	16.9	6.7	70.4	5.1	18.0	6.5
20	67.7	11.0	12.7	8.6	70.9	5.3	14.6	9.2
21	65.4	11.9	9.7	12.9	70.6	5.3	11.3	12.8
22	66.1	11.2	6.3	16.5	71.9	4.8	7.5	15.8
23	64.4	10.7	2.8	22.1	72.0	4.4	3.8	19.7
24	63.7	10.3	1.6	24.3	70.4	4.3	2.3	22.9

Source: 1971 Northern Ireland Census of Population.

Table 2: *Economic Activity of Young People in Northern Ireland in 1991*

Age	Catholics					Protestants				
	Employment	Unemployment	YTP and Other Schemes	Education	Other	Employment	Unemployment	YTP and Other Schemes	Education	Other
	%	%	%	%	%	%	%	%	%	%
16	4.5	5.5	7.0	82.3	0.7	6.6	4.6	6.3	81.7	0.7
17	15.5	8.0	15.2	59.7	1.5	22.5	6.8	14.0	55.2	1.5
18	27.6	14.4	7.6	47.9	2.6	37.4	10.8	6.3	42.3	3.1
19	38.9	19.6	3.3	33.6	4.6	51.5	13.2	2.2	28.7	4.5
20	45.2	19.7	3.1	25.2	6.7	57.8	12.4	1.5	22.1	6.2
21	48.1	20.1	2.3	20.5	9.0	61.3	12.3	1.2	17.6	7.7
22	51.9	20.6	1.9	15.6	10.1	65.5	12.2	1.1	12.6	8.6
23	56.7	20.9	1.8	7.9	12.8	70.1	12.7	1.0	6.0	10.3
24	58.7	20.1	1.6	4.5	15.1	71.6	11.8	0.9	3.3	12.4

Source: 1991 Northern Ireland Census of Population.

capital (Becker, 1975). Alternatively, they may use qualifications as a "screening device" where the number of passes, but not the specific subjects, indicate general employability (Raffe, 1988). A central theme of the paper, besides the analysis of the impact of religion, is therefore subject type of examination pass as a determinant of outcomes.

III THE SELS DATA

We investigate these issues using the Secondary Education Leavers Survey (SELS) data set. This contains information on 1,600 young people who left school in Northern Ireland in the academic year 1990-91. Rather than being a year cohort (e.g., all 16 year olds or all fifth-form school-leavers), it is an event cohort. It is a random sample of all school-leavers from fifth, lower-sixth and upper-sixth forms. Listwise deletion of cases with missing values meant that 1,475 cases were used for the econometric modelling.[3] The SELS data cannot be used to analyse the broader inequalities noted in the descriptions of the economic activity of 16-24 year olds from the Census. However, because it contains data on young people aged 16-19 some 6 to 9 months after they leave school, it can analyse the beginnings of religious inequality at an early stage.

The age of the school-leavers in the SELS data set is bi-modal; the modal age for upper-sixth form school-leavers at the time of the survey was 19 and that for fifth-form and lower-sixth form leavers was 17. There are also significant differences in post-school destination by the stage at which schooling was completed. Higher education is the preserve of those with A levels which are taken in the upper-sixth form. Thus higher education is closed to fifth-form and lower-sixth form leavers but other destinations such as YTP schemes are open to them. In short, labour market and educational outcomes are highly structured by the stage at which school is left. Upper-sixth form leavers are less likely to be economically active than fifth-form leavers. However, economically active upper-sixth form school-leavers have a higher rate of unemployment than earlier school-leavers because they are ineligible for YTP schemes. The most common destination for fifth-form and lower-sixth form school-leavers was YTP schemes. Nearly all the economically inactive early leavers were in further education. Therefore it is important to distinguish between upper-sixth form and other school-leavers in all our analyses.

Tables 3 and 4 show the extent to which religious differentials exist among young people immediately after they leave school. Although some of the cell sizes are small, the patterns revealed are very similar to those noted in the commentary on the Census data. The largest differentials are for males:

3. All the results reported in this paper are based on the unweighted SELS data.

Table 3: *Economic Activity by Sex and Religion*
Fifth and Lower-Sixth Form School-Leavers

	Males		Females	
	Catholics	Protestants	Catholics	Protestants
Activity Rate	70.9%	70.5%	47.8%	55.6%
(Sample Size)	(220)	(227)	(186)	(257)
Economically Active				
School Leavers				
Employed	25.6%*	43.1%*	36.0%	36.4%
YTP	69.9%*	50.0%*	56.2%	59.4%
Unemployed	4.5%	6.9%	7.8%	4.2%
(Sample Size)	(156)	(160)	(89)	(143)
Economically Inactive				
School Leavers				
Further Education	95.3%	92.5%	96.9%	92.1%
Other	4.7%	7.5%	3.1%	7.9%
(Sample Size)	(64)	(67)	(97)	(114)

Note: Statistically significant differences between Catholics and Protestants are denoted by an asterix. A 5 per cent significance level is used.

Table 4: *Economic Activity by Sex and Religion*
Upper Sixth Form School-Leavers

	Males		Females	
	Catholics	Protestants	Catholics	Protestants
Activity Rate	23.7%	18.9%	16.2%	20.8%
(Sample Size)	(118)	(164)	(130)	(173)
Economically Active				
School Leavers				
Employed	67.9%	71.0%	85.7%	72.2%
Scheme	7.1%	9.7%	4.8%	8.3%
Unemployed	25.0%	19.3%	9.5%	19.4%
(Sample Size)	(28)	(31)	(21)	(36)
Economically Inactive				
School Leavers				
Higher Education	77.8%	85.7%	74.3%	69.3%
Further Education	18.9%*	8.3%*	22.9%	27.0%
Other	3.3%	6.0%	2.8%	3.6%
(Sample Size)	(90)	(133)	(109)	(137)

Note: Statistically significant differences between Catholics and Protestants are denoted by an asterix.

Catholics males are more likely than Protestants males to stay on in education or to end up on YTP schemes. One significant effect that cannot be observed in the Census data is that religious differentials tend to be more marked amongst early school-leavers (i.e., those who leave from fifth-form and the lower-sixth form).

IV ECONOMETRIC MODELLING

Cross tabulations of activity by various personal and other characteristics are a useful starting point for any investigation. However, since many of these characteristics are correlated with each other, results based on cross tabulations alone may be misleading. Multivariate models are therefore more appropriate. The reason for this is that, in well-specified models, the effects of all the characteristics are estimated simultaneously and the separate effects of each characteristic may be disentangled.

The school-leavers in the SELS sample may be observed in six possible "first destinations": employment, YTP schemes, unemployment, further education, higher education and other inactivity. School-leavers in the first three destinations are classed as economically active; the remainder are classed as economically inactive. We model these outcomes using a series of nested logit models. Econometric models for five or six destinations could have been estimated but these are either overly restrictive or else rather complex so a simpler approach is adopted in this paper.[4]

Initially, the incidence of economic activity was modelled for both groups of school-leavers. Following this, logit models for employment and YTP schemes were estimated for economically active fifth and lower-sixth form school-leavers. A model of the incidence of unemployment was also estimated. Since the number of unemployed fifth and lower-sixth form school-leavers was small, the results should be treated with care.[5] A model for the incidence of further education was then estimated for economically inactive fifth and lower-sixth form leavers. For upper-sixth form leavers, the incidence of employment was modelled for those who were economically active. Logit models for higher education, further education, and other inactivity were then estimated for economically inactive upper-sixth form leavers. The number of economically inactive school-leavers in the sample who are not in higher or further education was small.

In the logit model, the observed dependent variable y is binary so y=0 or

4. Multinomial logit models are easy to estimate but the "independence of irrelevant alternatives" assumption embodied in these models is restrictive. Simulated multinomial probit models are very general but are also very demanding from the computational point of view.

5. In addition, the constraint that the probabilities of being employed, on a scheme or unemployed sum to one has not been imposed on the separate logit equations.

y=1. For example, when modelling the incidence of unemployment, y=0 indicates employment and y=1 indicates unemployment. The probabilities of these two outcomes are:

$$\text{prob } (y_i = 0) = \frac{1}{1 + \exp(x_i'\beta)}$$

$$\text{prob } (y_i = 1) = \frac{\exp(x_i'\beta)}{1 + \exp(x_i'\beta)}$$

where $x_i'\beta = \sum_j x_{ij}\beta_j$ and the subscripts i and j refer to the i'th individual and j'th explanatory variable respectively. The x_{ij}'s are the individual specific explanatory variables and the β_j's are the associated coefficients which have to be estimated. The logit models were estimated by maximum likelihood using the econometric package TSP. Convergence was achieved in a few iterations since the log likelihood for the logit model has a global maximum.

A standard set of explanatory variables of the type seen in many other studies of both the adult and youth labour markets were used (see, for example, Murphy and Shuttleworth, 1994). These include age; gender; religion; number of siblings; parental labour market status; number of qualifications; type of last school attended; passes in mathematics or science; and free school meal eligibility. For upper-sixth form leavers some additional explanatory variables were included. These were the number of A levels and passes in A level mathematics or science. Statistically significant interactions between the variables were also included. Alternative models were estimated with GCSE passes recorded as being Grade G or higher. The results did not differ significantly from those obtained when a GCSE pass is defined as a Grade C or higher so they are not presented here. Most of the explanatory variables are categorical. Age, the number of siblings, and the number of GCSE and A level passes are, of course, continuous variables. The free school meals and parental labour market status variables may not be predetermined (i.e., they might be jointly determined along with post-school outcomes) but this potential problem was not considered.

There are no agreed upon "best" measures of goodness of fit for logit models. In this paper we report two measures of fit. These are the percentage of correct predictions and McFadden's pseudo R^2 which equals $1-(LL_1/LL_0)$ where LL_0 and LL_1 are the values of the log likelihood when the model contains only a constant and when it contains all the explanatory variables respectively. We carried out a range of mis-specification tests on the estimated logit models since omitted uncorrelated explanatory variables,

neglected heteroscedasticity or asymmetry generally give rise to inconsistent coefficient estimates. We used artificial regression based Lagrange multiplier (LM) tests.[6] In addition standard likelihood ratio tests were used to test the equality of coefficients across sub-samples, for example, between Catholic and Protestant males.

When presenting the results we set out the marginal effects which show the effect of a small change in an explanatory variable on the probability of some event such as being unemployed.[7] For example, in Table 5 the marginal effect of age on the economic activity of fifth-form and lower-sixth form leavers is estimated to be 5.4 percentage points. This means that a 17 year old school-leaver is over 5 percentage points more likely to be economically active than an otherwise identical 16 year old. An alternative approach is often used when considering the effect of changes in categorical variables, such as being Catholic, on the probability of some event like being employed. *Ceteris paribus* effects, are calculated for some of the models presented in the next section. In practice the estimated marginal and *ceteris paribus* effects tend to be of the same order of magnitude.

V THE ECONOMETRIC RESULTS

Since the main focus of the paper is on economically active "first destinations", we tabulate the results for these destinations and only discuss the results for the other destinations. The results for the incidence of economic activity, set out in Table 5, show the contribution of various personal and family characteristics to the probability of being economically active. Explanatory variables with positive coefficients are associated with a higher probability of being economically active and vice versa for variables with negative coefficients. The statistical significance of these variables is indicated by the size of the associated t-statistic. The marginal effects quantify the effects of the explanatory variables.

The first set of results relate to fifth and lower-sixth form leavers. They were classified as economically inactive if they were in further education or had withdrawn from both the labour market and the education system. Age, religion, qualifications and the number of siblings were all significant. *Ceteris paribus*, older respondents were more likely to be economically active as were males. Catholics were less likely than Protestants to be economically active. Two qualification variables were also statistically significant. As the number

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6.   We tested for omitted variables, heteroscedasticity, asymmetry and functional form mis-specification using LM tests calculated using the non-outer product gradient based artificial regressions presented in Davidson and MacKinnon (1984). These tests have good small samples properties.

7.   The marginal effects were calculated at the sample averages.

Table 5: *Incidence of Economic Activity*
Logit Model Results

Explanatory Variables	Fifth and Lower-Sixth Formers			Upper-Sixth Formers		
	Coeff	t-Stat	Marginal Effect	Coeff	t-Stat	Marginal Effect
			%			%
Constant	−3.69	1.5	—	2.13	4.3	—
Age	0.29	2.0	5.4	—	—	—
Male	0.57	2.1	10.8	—	—	—
Catholic	−0.33	2.0	−6.2	−0.66	2.0	−8.1
Catholic & Male	—	—	—	0.69	1.8	8.4
Grammar School	—	—	—	−0.48	1.6	−5.9
No. of GCSEs	−0.58	6.0	} −9.3	−0.22	3.0	−2.7
No. of GCSEs Squared	0.04	3.1		—	—	—
GCSE in Maths & Male	−0.65	2.4	−12.3	—	—	—
No. of A Levels	—	—	—	−0.68	6.0	−8.3
No. of Siblings & Male	0.17	2.4	3.2	—	—	—
Sample Size		890			585	
Economic Activity Rate		61.6%			19.8%	
Log Likelihood		−496.2			−232.9	
Pseudo R^2		0.202			0.223	
Correct Predictions		70.9%			83.6%	

of GCSEs increased the chance of being economically active decreased as it did for males with GCSE passes (at grade C or higher) in mathematics. Finally, the probability of being economically active increased with the number of siblings.

The second set of results in Table 5 relate to upper-sixth form leavers. The chances of being economically active are reduced if a school-leaver attended grammar school and as the number of A level passes held rose. This means that school-leavers with more qualifications are less likely to enter the labour market than those with fewer qualifications. For example, an extra A level is estimated to reduce the probability of being economically active by about 8 percentage points. Catholic males seem more likely to be economically active than Protestants whereas the opposite is true for females.

Logit model results for the incidence of employment, YTP schemes and unemployment for economically active fifth and lower-sixth form school-leavers are shown in Table 6. Looking at the results for employment, some effects are easily interpreted. The chances of an economically active youth being employed increase with age, the number of qualifications and if the

Table 6: *Incidence of Employment, YTP Schemes and Unemployment*
Economically Active Fifth and Lower-Sixth Form School-Leavers
Logit Model Results

Explanatory Variables	Employment			YTP Scheme			Unemployment		
	Coeff	t-Stat	Marginal Effect	Coeff	t-Stat	Marginal Effect	Coeff	t-Stat	Marginal Effect
			%			%			%
Constant	−13.40	4.4	—	131.84	2.3	—	158.90	2.2	—
Age	0.73	4.2	15.1	16.35	2.4	} −19.5	19.04	2.3	} 0.6
Age Squared	—	—	—	−0.50	2.6		0.56	2.4	
Male	0.44	1.8	9.2	−0.59	2.4	−12.3	—	—	—
Male & Catholic	−0.74	1.9	−15.2	1.02	2.6	21.4	—	—	—
Catholic	1.06	2.3	21.8	−2.08	3.6	−43.6	—	—	—
Free Meals	—	—	—	−0.50	1.9	−10.5	—	—	—
Free Meals & Catholic	—	—	—	1.08	2.5	22.6	—	—	—
No. of GCSEs	0.14	3.2	2.9	−0.13	2.8	−2.7	—	—	—
No. of Siblings & Catholic	−0.20	2.4	−4.2	0.21	2.5	4.4	—	—	—
Both Parents Employed	—	—	—	—	—	—	−1.21	2.4	−6.2
Both Parents Employed & Catholic	−0.91	2.4	−18.8	1.57	3.5	32.9	—	—	—
Father Employed & Catholic	−0.79	1.9	−16.3	1.07	2.5	22.4	—	—	—
Mother Employed & Catholic	−	−	−	1.32	2.2	27.5	—	—	—
Log Likelihood	−328.21			−331.02			−111.55		
Pseudo R^2	0.097			0.137			0.037		
% Correct Predictions	69.3			66.1			94.3		

Note: The sample size is 548. The sample composition is 35.2 per cent employed; 59.1 per cent on YTP schemes and 5.7 per cent unemployed.

person is male. For example, the estimated marginal effect for age suggests that the probability of being employed rises by about 15 percentage points with each additional year of age. This simple picture is complicated by the presence of a number of interaction terms with religion. These mean that employment chances increase if the respondent is a male, unless they are a Catholic male when they decrease by some 15 percentage points. Likewise, if a school-leaver has both parents employed or only their father is in work, their chances of employment decrease if they are a Catholic. There is also a significant interaction between family size and religion. The results suggest that each additional sibling reduces the chances of being employed by about 4 percentage points in the case of Catholic school-leavers. The estimated overall effect of being Catholic may be calculated using the results in the first part of Table 7. These suggest that the *ceteris paribus* effect of being Catholic is about −18 percentage points for males and zero for females. The −18 percentage point figure is the difference between the actual Catholic male employment rate of 25.6 per cent and the estimated employment rate of 43.8 per cent if there were no religion effects.

Table 7: *Predicted Incidence of Employment and YTP Schemes*
With and Without Religion Effects
Economically Active Fifth and Lower Sixth-Form School-Leavers

		Employment (%)		YTP Scheme (%)	
Group	Sample Size	Actual and Predicted	Predicted With No Estimated Catholic Effects	Actual and Predicted	Predicted With No Estimated Catholic Effects
		%	%	%	%
Catholic Males	156	25.6	43.8	69.9	47.3
Protestant Males	160	43.1	—	50.0	—
Catholic Females	89	36.0	36.2	56.2	55.9
Protestant Females	143	36.4	—	59.4	—

Note: Calculated using logit model results in Table 6.

The second set of results in Table 6 relate to participation on YTP schemes. Since few fifth or lower-sixth form school-leavers are unemployed, many of the effects obtained are the opposite of those obtained for employment. In addition there is an extra age effect which is captured by the age squared term. Increasing age has a negative effect on the chances of being on a YTP scheme as would be expected given the rules for participation on a scheme.

Also, given what is known about the qualifications of young people on YTP schemes (Shuttleworth and Armstrong, 1993), it is not surprising that more GCSEs reduced the chances of being on a scheme. There are also a number of interesting interaction effects involving religion which may be summarised as follows. First, males are less likely to be on a YTP scheme unless they are Catholic. Second, religion and social deprivation, proxied by eligibility for free school meals, interact with the result that Catholics from deprived backgrounds are more likely to be on a scheme than other school-leavers. Finally, as a mirror image to the effects noted for employment, Catholics with many siblings, with both parents, or only their father in work, are also more likely to be on a YTP scheme than other school-leavers. This last effect is unusual. A priori one might expect that school-leavers from a parental background of employment would in turn be more likely to be employed themselves. In the case of Catholics this is not what we find. It might be that Catholics from relatively-advantaged backgrounds attach greater value to training than Protestants. There is as yet no data to confirm or disprove this hypothesis. The balance of evidence suggests, however, that Catholics and Protestants do not have fundamentally different attitudes toward employment and training. The overall effect of being Catholic may be calculated using the results in the second part of Table 7. The estimated *ceteris paribus* effects are about −22 percentage points for males and 0.3 percentage points for females. These effects include both the direct and indirect effects of religion.

The estimates for the relationship between personal and family characteristics and the incidence of unemployment, shown in Table 6, are easy to summarise and interpret. The main item of interest is that school-leavers with both parents in employment are significantly less likely to be unemployed than other young people. This seems reasonable in the light of other research findings. However, this equation is not very well determined, because the numbers unemployed in our data set are very small, so one should not place too much faith in the results. Better results would be obtained with a larger sample and more explanatory variables.

Less than a fifth of upper-sixth form school-leavers entered the labour market. The results presented in Table 8, suggest that age, qualifications and parental labour market status are significant determinants of the incidence of employment for this group. Older school-leavers who enter the labour market are more likely to be employed. School-leavers with more A levels are also more likely to be employed. School-leavers with both parents, or only their father employed, also have a greater chance of being employed. This effect is also observed in the British studies cited earlier. However, no significant religion effect could be detected.

Table 8: *Incidence of Employment*
Economically Active Sixth Form School-Leavers
Logit Model Results

Explanatory Variable	Coeff	t-Stat	Marginal Effect
			%
Constant	−18.84	2.5	—
Age	0.94	2.4	14.4
Number of A Levels	1.46	2.1 }	8.7
Number of A Levels Squared	−0.35	1.5	
Number of Siblings	0.18	1.5	2.7
Both Parents Employed	1.59	2.6	2.4
Father Employed	1.88	2.7	2.9
Sample Size		116	
Per Cent Employed		73.3	
Log Likelihood		−54.87	
Pseudo R^2		0.216	
Per Cent Correct Predictions		78.4	

The vast majority of economically inactive fifth and lower-sixth form school-leavers enter further education. For young people of this age, economic inactivity is therefore very nearly synonymous with entry to a college of further education. However, we felt it was worthwhile modelling whether or not an inactive fifth or lower-sixth form leaver was in further education. Other things being equal, the likelihood of being in further education rose if both parents worked and if you were a Catholic. The probability of being in further education also rose with the number of GCSEs held. The chances of being in further education declined as the numbers of siblings rose. This result deserves further comment. In our data set, large family size appears to be a social deprivation effect. On the one hand, for the economically active, it increases the chances of ending up on a YTP scheme. On the other hand, for the economically inactive, it increases the chances of not entering further education thereby joining the category of the "other inactive" who are not in employment, training or education. The religion effect for further education, in comparison with that for YTP schemes, is also interesting. The positive effect of being a Catholic on participation in further education is less obviously a symptom of disadvantage.

Economic inactivity is the major destination for upper-sixth form school-leavers who generally enter further and higher education. Of these, higher education is the more important destination. The determinants of entry to further and higher education are intuitive and are reassuringly similar to

those observed in other parts of the analysis. The chances of being in higher education increased as the number of A levels and GCSEs held rose. Possessing an A Level in science also increased the chance of being in higher education. In contrast, being male reduced the chances of being in higher education. Religion was statistically insignificant. However, some religion effects were found for further education. On the one hand, Catholic males were more likely to be in further education than Protestants males. On the other, Catholic females were less likely to be in further education. The number of GCSEs and A levels held is negatively related to the chances of being in further education, which is not surprising because well qualified school-leavers are more likely to enter higher education. Two contradictory socio-economic background effects were also observed. Leavers eligible for free school meals were less likely, whereas those from larger families were more likely, to be in further education. The determinants of other types of economic inactivity were largely ignored because the small sample size meant the equation was poorly determined.

VI DISCUSSION

Looking at the immediate post-school destinations of young people, there are many interesting effects that are worthy of further comment. These include the influence of family and personal background including the economic activity of the parents, social deprivation, number of GCSEs and gender. The effects of these variables are generally similar to those noted in other studies for Northern Ireland and Britain. Males, for example, are more likely, everything else being equal, to be economically active; school-leavers with more siblings are less likely to be employed than those from smaller families; young people with qualifications are less likely to be on a YTP scheme, and as expected, having qualifications improves the chances of continuing on to further and higher education. However, we will just concentrate on the effects of religion and subject type.

The independent influence of religion, once family and educational background are taken into account, is sufficiently strong and consistent to allow considerable confidence in its existence. In addition, the models presented here were checked for mis-specification and were found to be robust. Other things being equal, Catholics who enter the labour market from the fifth and lower-sixth forms are more likely than Protestants to end up on a YTP scheme and are less likely to be employed. The labour market effect of religion for upper-sixth form school-leavers is statistically insignificant. In the wider picture of post-school destinations, we find other interesting religion effects; Catholics on the whole are more likely than Protestants to be

economically inactive and are also more likely to be in further education. The influence of religion is complex; it has greatest impact on males and on those who leave school before the upper-sixth form. This suggests that general explanations that invoke demography (Gudgin and Breen, 1996) miss the interactions between religion, education and family background which are necessary to explain the actual religious differentials in outcomes found in the data.

Given the data currently available, there is no unique interpretation of the observed religious differentials which we find (Murphy and Armstrong, 1994). They might reflect direct discrimination on the basis of religion among young people. However, other explanations are also possible. One hypothesis, for example, is suggested by Teague (1993) and concerns indirect discrimination and the social construction of labour markets. Given that over a third of the employed young people in the SELS data set found jobs by "word of mouth", this may be significant.

In explaining the broader patterns of inequality in post-school destination the "discouraged worker" hypothesis of Raffe and Willms (1989) might also be useful. Participation in education may be seen as a strategy to avoid entry to a depressed labour market. This behaviour may reflect a Catholic perception that they will be discriminated against in the labour market. Another interpretation is that Catholics, because they realise that they will face difficulties, seek to accumulate human capital to compete more effectively. We have left an analysis of this topic for future research.

Turning now to the effects of qualification and subject mix, we find that subject type of qualification gained (GCSE or A level passes in Mathematics, Science and English) was insignificant as a determinant of employment, entry to YTP, or unemployment for the economically active. This finding, and the persistent significance of religion once education was controlled for, is very significant given the widely-cited claims that Catholic/Protestant differentials in employment and unemployment can be partly explained by differences in the number of qualifications held and in subject mix (Cormack and Osborne, 1989). Subject type of qualification is not an important determinant of immediate post-school labour market outcomes. Policies to equalise science and mathematics uptake for Catholics and Protestants on the grounds that this will help to reduce differentials in labour market outcomes may thus be misplaced.

Concentrating just on school-leavers who become economically active, this raises questions about how employers perceive and use qualifications. The analysis of the SELS data suggest that the number of qualifications may be used as part of a screening process and that little, or no, intrinsic value is attached to the specific subject type of qualification gained. Part of the reason

why science/mathematics qualifications appear to be relatively unimportant as labour market determinants, may lie in the structure of the Northern Ireland labour market. Most young people gain unskilled employment in construction, retailing, distribution and other services. A priori, one would not expect there to be a high demand for science and mathematics GCSEs in these jobs. The conclusion that subject type, rather than the number of qualifications, is unimportant is reinforced by some British research (Dolton et al., 1992) which finds that whether or not a school-leaver possessed a pass at GCSE in English or Maths had no statistically significant influence on the incidence of employment or unemployment.

VII CONCLUSIONS

We are able to provide clear answers to many of the research questions outlined earlier in the paper. Religion is a key independent factor determining "first destinations". The effects of religion cannot be accounted for solely by differences in the family and educational background of Catholic and Protestant school-leavers. Catholic males who leave school early are significantly more likely to enter a YTP scheme rather than a job, and we know that those on YTP schemes are significantly more likely to end up unemployed later on. This finding implies that educational policies will not easily redress this inequality. Moreover, the persistence of religious differentials from 1971 to 1991 suggests that a very deeply-engrained process is at work. The expansion of education and introduction of YTP schemes seem merely to have reproduced inequalities in different ways.

Since we are looking at recent school-leavers, the results suggest that Catholic disadvantage is ongoing. It cannot be dismissed as a phenomenon of the past. Furthermore, the issue of religious disadvantage for contemporary school-leavers is not just a matter of who gets, or fails to get, work. It is also an issue of who stays on in education and who enters YTP schemes. All types of school-leavers are not equally at risk. Religious disadvantage, for example, does not seem to be as strong for females and for upper-sixth form school-leavers. In essence, poorly-qualified male school-leavers are much more likely to enter YTP if they are Catholic, and employment if they are Protestant. Although YTP is a government-sponsored training programme that might be considered superior to some jobs, in practice it represents an inferior destination for Catholics. Not only are Catholics over-represented in ineffective training programmes (Shuttleworth and Armstrong, 1993), but the labour market outcomes of those who leave YTP schemes are poorer than those who made a successful transition to employment after school.

After controlling for the effects of other explanatory variables in the data

set, subject type was found to be statistically insignificant in determining early labour market outcomes. The only exceptions to this were noted in relation to the chances of being economically active and of being in higher education. Policies to boost Catholic qualifications in science/mathematics in order to reduce labour market inequality are therefore likely to be ineffective.

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