

Educational Attainment, Occupational Achievement and Religion in Northern Ireland*

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I INTRODUCTION

IT has long been established that educational attainment is related to social background and that subsequent occupational achievement is dependent on educational attainment and on social background. In the case of Northern Ireland the relationships connecting these factors have been complicated by the religious division of the community. This has not only greatly influenced the nature of the educational system but as Auger (1975) has demonstrated it is also a significant factor in the occupational structure. This paper sets out to analyse the relationships connecting social background, educational attainment and occupational achievement and in the light of this analysis to investigate the part which religious affiliations play in educational attainment and occupational achievement in Northern Ireland. The study is based on a questionnaire, administered throughout Northern Ireland, designed to collect data on the respondents' education, occupational achievement and background.

II EDUCATION IN NORTHERN IRELAND

The history of education in Northern Ireland has been a troubled one. Every major piece of educational legislation has been the subject of both bitter and divisive controversy. As is so often the case in Northern Ireland the debate has tended to centre on the religious aspects rather than on the inherent merits or demerits of the proposals involved. Although a detailed description of the history is not possible here and is in any case available elsewhere (Akenson, 1973; McNeilly, 1973) it is worth outlining the bare bones as they provide some

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insight into the system as it now exists. The conflict has been a three-sided one, involving the Unionist Government, the Protestant Clergy and the Catholic Church, with three main areas of contention, control of teacher appointments, religious instruction and funding. When the state came into being the vast majority of schools were National Schools under private, generally clerical management. Over the years control of the Protestant schools was gradually given over to the state. To ensure that Protestant children would continue to receive a suitable moral education the Protestant Clergy sought to maintain control over the appointment of teachers and to maintain the availability of non-denominational Bible instruction in state schools. The Catholic Church, on the other hand, wanted to maintain a more complete control over its schools and did not cede control to the state. Nevertheless, Catholics argued, with some justification, that since the state school system was a *de facto* Protestant system they were entitled to the same funding as the state system. Over the years the funds supplied to voluntary (non-state) schools have increased and at present teachers' salaries; maintenance costs and 65 per cent or 80 per cent of capital costs are provided by the state, the latter figure depending on the form of school management employed. The Northern Ireland Ministers of Education most actively involved in shaping the development of education in Northern Ireland, Lord Londonderry (1923 Act), Lord Charlemont (1930 Act) and Samuel Hall-Thompson (1947 Act), have tended to be men of principle who sought to provide a secular educational system and to prevent, in so far as they were able, education from becoming a sectarian football. However, since the Unionist Party was almost completely dependent on Protestant support, the reality of the political situation forced them to compromise their positions and to make substantial concessions to the demands of the Protestant Clergy and the Orange Order. All three ministers named above ended up resigning their posts.

The upshot of these developments has been the establishment of two parallel school systems in Northern Ireland. On the one hand, there is the state system with the vast majority of the teachers and pupils being Protestant while, on the other hand, the Catholic system consists almost exclusively of Catholic teachers and pupils. It has been suggested that the development of this dual system has to some extent supported the maintenance of the religious split in the community and in consequence contributed to the present Troubles (Barrit and Carter, 1962). Although there is little or no hard evidence to substantiate this view, it is nevertheless clear that a divided school system will not enhance overall community solidarity. Another suggestion which has been made is that since the Catholics have to provide part of their capital costs Catholic schools are not as well provided for and consequently offer a lower standard of education (Darby, 1973). Although Catholics tend, as we shall see, to be less well educated than Protestants this is by no means a conclusive argument and the point is a moot one.

Apart from the religious aspect, education in Northern Ireland has in general followed the trends set in the rest of the United Kingdom. Thus the 1947

Northern Ireland Education Act was similar to the 1944 Butler Act. Indeed the present secondary educational system is, with the exception of technical schools which were phased out in 1961, essentially that envisaged by the Butler Act. On completing their primary school education, which lasts from the age of five until just before their eleventh birthday, children undergo a selection procedure to assess their ability to benefit from an academic grammar school education. Those who are successful, approximately 25 per cent, receive a scholarship which will cover the cost of their grammar school fees. Those who are unsuccessful may attend secondary (intermediate) schools free of charge. The grammar schools are academically orientated, being geared primarily toward the GCE (General Certificate of Education) "O" and "A" level examinations which pupils take at the ages of 16 and 18 respectively. Their performance in the latter examinations determines whether or not they will be given a scholarship to enable them to proceed to tertiary education. Those who attend secondary school can follow a number of different courses depending on their abilities. A proportion, in theory of the order of 20 per cent, take the GCE examination while the remainder either take the CSE (Certificate of Secondary Education) or else take no examinations at all. As yet there has been no substantive move in the direction of comprehensive education. Although there are four comprehensive schools serving rural areas and a number of quasi-comprehensive schools in areas where at least a proportion of the more able pupils are creamed off by grammar schools, Donaghy (1970) has aptly described the movement towards comprehensive education as "small and sporadic". It is possible that a paper on the subject published recently by the minister responsible for education in Northern Ireland (Northern Ireland Department of Education, 1976) may lead to further progress. Secondary education is compulsory until the age of 16. For those who proceed to tertiary education the same institutions exist as in the rest of the United Kingdom; the universities and polytechnical colleges are integrated while there are separate colleges of education for Protestants and Catholics. Vocational education available on a part-time basis for young working adults, is also integrated.

Educational selection, a contentious issue in the rest of the United Kingdom, has also been widely debated in Northern Ireland even if, as yet, there has been little to show for the debate. The vast majority of the grammar schools in Northern Ireland, both Catholic and Protestant, are voluntary and as such are entitled to reserve 20 per cent of their places for fee paying pupils as distinct from scholarship pupils. They may in fact give a greater proportion of places to fee paying pupils provided they do not, by so doing, deprive scholarship pupils of places. This means that those who fail the selection procedure can still attend grammar school provided their parents can afford to pay the fees and are willing to do so. Furthermore, there is subsequent to the selection procedure a review procedure to give a second chance to those who may have been wrongly failed in the initial selection. This selection procedure, for which there is a relatively high pass rate, is mostly availed of by those who are fee paying pupils. The

practical consequence is that those whose parents are paying their fees frequently get a second opportunity to win a scholarship (Darby, 1973; Spelman, 1975). Although relatively little research has been done in this area, the work which has been carried out indicates that middle-class children tend, one way or another, to end up in a grammar school.

Those who attend grammar school have of course a much greater chance of obtaining "O" and "A" level qualifications. Not only do a much greater proportion of grammar school pupils take these examinations but in addition these schools are geared specifically towards "O" and "A" levels. Since "O" and "A" level qualifications are used by employers as an indication of suitability of job applicants and also used as a basis for selection for tertiary education, it can be seen that those who are selected to attend grammar school or those who have their fees paid will generally achieve higher educational and occupational attainments as a consequence. Given the widespread effects which selection can have on an individual's later educational and occupational careers, it is important to note that the selection procedure is in fact a rejection procedure, rejecting absolutely only those whose parents are unable or unwilling to pay the grammar school fees. This in effect means that the Northern Ireland educational system is biased against those whose parents are less well-off or less educationally motivated.

III THE INVESTIGATION

The work which is described below is an analysis, on a province-wide basis, of the factors which influence educational attainment and subsequent occupational achievement. The analysis is based on data obtained in response to a postal questionnaire administered in 1973 by the Northern Ireland Census Office on behalf of the Irish Mobility Study¹. The questionnaire, designed to measure "Occupational and Educational changes in a Generation" was sent to a random sample of 12,669 Northern Ireland males, aged 17 to 63 on census day 1971. In addition to the data from 5,416 correctly completed questionnaires we also received from the Census Office a certain amount of census data for each of the 12,669 individuals originally sampled. Because of the need to ensure that the confidentiality of the census was maintained, we took no part in the selection of the sample, the administration of the questionnaire or in the coding and validation of the data. We provided the Census Office with the questionnaires and they supplied us with magnetic tape files containing the response data and census data on the individuals sampled.

1. The Irish mobility study was set up by Professors Jackson, Iutaka and Hutchinson in 1971 to study "Determinants of Occupational Mobility in Northern Ireland and the Irish Republic". To this effect a number of major surveys have been carried out financed by the Social Science Research Council under grant number HR 1430/1. Those active in the project at present include J. A. Jackson, S. Iutaka, B. Miller, S. Roche and the author.

The response to the questionnaire, although not as high as we would have liked was, for a postal questionnaire, a reasonable one. Allowing for sample mortality, i.e., cases in which the questionnaire was returned indicating that the sampled individual had deceased, changed address, etc., the effective response rate was 52.6 per cent. When an estimate of the overall sample mortality was made, taking into account factors such as the number of sampled individuals who would normally have been expected to change address or die between the administration of the census in 1971 and the administration of the questionnaire in 1973 and also taking into account the degree of forced migration resulting from the Northern Ireland Troubles during this period (Darby and Morris, 1974) we obtained an effective response rate of 59.3 per cent. Although the response was a reasonable one it is not as high as that obtained in some other postal surveys, e.g., Blau and Duncan (1967) in their work on the American Occupational Structure report a response of five-sixths. Their high response was almost certainly due in part to the fact that the questionnaires were personally delivered and that a personal follow up was used if there was no response to a postal reminder. In our case the confidentiality of the census prevented any personal involvement at either the delivery or follow up stages. Two written reminders, the second containing an additional copy of the questionnaire, were sent to those who did not return the forms. These reminders boosted the response considerably. Prior to the reminders replies had been obtained in 24.6 and 46.7 per cent of the cases respectively. In the final count replies were obtained in 58.4 per cent of cases. This figure could almost certainly have been increased by a personal follow up. The political sensitivity of the question of surveys in Northern Ireland made it necessary to make it absolutely clear that response to the survey was completely voluntary and this may have reduced the response. It is also possible that in some cases non-response may have been part of a more general reaction against authority.

Since we had not only questionnaire data supplied by the respondents but also census data on all of the individuals sampled we were in a unique position to carry out an analysis of the nature of the response to our questionnaire. Table 1 gives the response profiles in terms of marital status, religion, age, social class, education and county of work. For each variable the Chi-squared test was used to test the null-hypothesis that the distribution of the respondents with respect to the variable was no different from the distribution of the total sample with respect to the variable. In all cases, with the exception of marital status, the null-hypothesis was rejected. It was rejected at the 1 per cent level of significance for county of work and at the 0.1 per cent level for all the other variables. Clearly the response to the sample is a biased one. Several possible explanations for the relatively low response rate of Roman Catholics come to mind. They were affected to a greater extent by the forced migration caused by the current political situation (Darby and Morris, 1974) and consequently relatively more of them will have been removed from the effective sample. As a group they identify less strongly with the Northern Ireland state and are therefore less likely

Table 1: *Characteristics of respondents and non-respondents to the Irish Mobility Study postal questionnaire on "Occupational and Educational changes in a generation"*

Characteristics	Proportion (P)		
	Responded	Non-responded	Total
<i>Marital Status:</i>			
Single	.329	.350	.339
Married	.657	.638	.647
Widowed	.013	.010	.012
Divorced	.001	.002	.002
N (P = 1.000)	5,847	5,269	11,116
<i>Religion:</i>			
Roman Catholic	.269	.380	.320
Protestant	.731	.620	.680
N (P = 1.000)	5,363	4,628	9,991
<i>Age:</i>			
19 and Under	.036	.033	.035
20-29	.231	.274	.251
30-39	.186	.222	.203
40-49	.211	.210	.210
50-59	.218	.172	.197
60-69	.118	.089	.104
N (P = 1.000)	5,847	5,269	11,116
<i>Social Class:</i>			
Professional	.048	.023	.036
Intermediate	.245	.183	.216
Skilled non-manual	.108	.088	.098
Skilled Manual	.332	.365	.348
Partly Skilled	.175	.202	.188
Unskilled	.092	.139	.114
N (P = 1.000)	5,524	5,062	10,586
<i>Education:</i>			
"A" levels	.141	.069	.108
No "A" levels	.859	.931	.892
N (P = 1.000)	5,847	5,269	11,116
<i>County of Work:</i>			
Belfast	.313	.309	.308
Antrim	.196	.234	.214
Armagh	.071	.088	.079
Down	.176	.151	.164
Fermanagh	.042	.028	.036
Londonderry	.086	.079	.083
Co. Londonderry	.028	.021	.025
Tyrone	.084	.089	.086
Elsewhere	.004	.005	.005
N (P = 1.000)	5,056	4,431	9,487

to reply to a survey sent out by the Census Office. Otherwise the response follows the trends that one might have expected. The young, the lower social classes and the less well educated all responded to a lesser extent. Notwithstanding what has been said above, it is also clear from the distributions in Table 1 that the response was representative and that no important group has been seriously under-represented by the response.

IV EDUCATIONAL AND OCCUPATIONAL MEASURES

In measuring education the problem is to construct measures which indicate the extent of an individual's education while at the same time allowing for a reasonably straightforward interpretation. Three characteristics come immediately to mind; the number of years of education, the types of institutions attended and the qualifications attained. The number of years of education, while significant, is limited in powers of explanation since educational histories covering the same time span may vary widely in content. Similarly attendance at a particular institution does not in general give a unique insight into an individual's educational history since institutions may offer a variety of courses and attendance at an institution is no guarantee that a particular course was completed. Qualifications on the other hand, are a complete measure in themselves. If an individual has a particular qualification then one can reasonably take it that he has followed the requisite course of study. Moreover, in the meritocratic society in which we live qualifications symbolise an individual's education and are used as a *de facto* measurement of an individual's educational achievement.

In the light of the above arguments it was decided that an effective uni-dimensional measure could be based on educational qualifications. The problem is then reduced to one of organising qualifications into a meaningful scale. In Northern Ireland, as in the rest of the UK, the great educational divide is between those who have completed secondary education in the academic stream and those who have not. If an individual has completed secondary academic education he has the opportunity of going on to tertiary education, there is a high probability that his occupation will be non-manual and his children are more likely to complete a secondary academic education. If, on the other hand, he does not complete secondary academic education he is unlikely to go to tertiary education, he has a high probability of entering a manual occupation and his children are much less likely to complete a secondary academic education. Clearly, completion or non-completion of a secondary academic education is a significant educational measure.

In Northern Ireland, at present, the best indication as to whether an individual has completed secondary academic education is whether or not he has passed a General Certificate of Education Examination at advanced level, i.e., whether or not he has "A" levels. As a measure in itself the possession or non-possession of

"A" levels has drawbacks. GCE "A" level examinations have been introduced only relatively recently and consequently do not apply to those in early age cohorts. Furthermore, some people manage to by-pass "A" levels and go on to higher qualifications. Thus, approximately 20 per cent of respondents who attended university did not have "A" levels, possibly due to entering by passing a matriculation examination. We have met these problems in two ways. First, we defined a variable, called "A level type qualification", which indicated whether an individual has a qualification at "A" level or in an examination which is considered equivalent to "A" level. Examinations falling into the latter categories included the Northern Ireland Senior Certificate, the Ordinary National Certificate and the Ordinary National Diploma. Secondly, we defined a variable called the subject's qualification status. This is based on the Census Office coding of qualifications and indicates whether an individual has a qualification of a type covered by codes 1 to 4 in Figure 1. In this case the definition of qualification is broader than the simple academic one. It covered

Figure 1: *Census classification by level and type of qualification*

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1. Doctorates at universities
 Doctorates and masters degrees of the Council for National Academic Awards
 Certain masters and bachelor degrees of members of the College of Technologists.
 2. First degrees at universities
 Degrees awarded by the Council for National Academic Awards and diplomas of technology.
 Certain memberships, fellowships, associateships, licentiates, graduates of professional institutions.
 3. Higher National Certificates and Higher National Diplomas
 Certain teaching qualifications
 Certain nursing qualifications
 Certain associates, diplomas, certificates, licentiates and fellowships of universities, further education colleges, professional institutions.
 4. GCE "A" level, Northern Ireland Senior Certificate, Higher Grade of Scottish Certificate of Education, Higher Grade of Scottish Leaving Certificate, Ordinary National Certificate, Ordinary National Diploma.
 5. Without qualifications.
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professional qualifications and qualifications obtained as a result of in-service training. It was included to enable us to investigate the value of qualifications in general as distinct from purely academic qualifications. All of the qualifications considered have been designated by the Census Office as being at least on a par with "A" levels. In addition to the two variables discussed above, we have considered two other main variables; number of years of formal education and university attendance. University attendance has been extended to include

attendance at Colleges of Advanced Technology, Further Education Colleges and Colleges of Education. Just over two-thirds of the individuals in these categories attended university while under one quarter attended Colleges of Education. We represented the education of the subject's father by whether or not he completed secondary education. The variable constructed was based on the father's education qualifications, which indicated whether the subject's father had or had not completed academic secondary education. Although in principle this should have been similar to "A" levels, a comparison of father's complete secondary education with subject's "A" levels for cohorts corresponding to the same period in time, indicated that the former occurred less frequently. There are a number of possible reasons for this. While the questionnaire response was biased in favour of the better educated it may not have had a corresponding bias in favour of individuals with better educated fathers. Another possibility is that respondents whose fathers had qualifications tended to be less sure about their father's education than those whose fathers had received only a basic primary education. Consequently, they may have been much more heavily represented among the very high number of non-responses to the father's educational qualification question; 1,234 out of a total of 5,416. In any case, only a relatively small number of respondents had fathers recorded as completing an academic secondary education.

The ideal approach to the problem of educational measures would be to investigate as many educational factors as practical and to see whether such factors could be satisfactorily combined to give an uni-dimensional scale. This approach was ruled out in our case by operational restrictions. Our instrument was a postal questionnaire designed primarily to investigate occupational changes in a generation. Consequently, the dictates of space and simplicity limited the number and complexity of questions which could be asked about education. Furthermore, because of the guarantee of confidentiality given to respondents, the coding was carried out by the Census Office without any direct control being exercised by the project staff. This required us to restrict ourselves to codes which were reasonably straightforward and conventional. In spite of these limitations we are satisfied with the variables which we have selected. The "A" levels and qualifications variables in particular not only meet the criteria laid down at the start of this section but, as we shall see later, they also possess a high explanatory power.

To represent occupational status we used two variables; the manual or non-manual nature of occupation, based on the Hall-Jones occupational scale (Oppenheim, 1970) and occupational rank based on the Irish Occupational Index² derived by the Irish Mobility Study group. The latter ranks all occupations on a scale from 1 to 100, the larger the rank value the higher the status of the occupation. The index was determined on an all Ireland basis by a

2. It is intended to publish in the near future details of the Irish Occupational Index together with an analysis and a description of the procedures used in its construction.

ranking of 80 occupations by 478 respondents followed by a more detailed ranking of 1,061 occupations carried out by a representative sub-sample of 28 individuals selected from the original sample. In the initial ranking exercise respondents were requested to list the 80 occupations in order of status and the occupations were allocated corresponding rank values from 1 to 80. Mean ranks were obtained by averaging. In the second ranking exercise the subjects were asked to allocate a rank score from 1 to 100 to each of the 1,061 occupations. They were instructed to relate these ranks to the original rank scale (which had been scaled to range from 1 to 100). The ranks obtained in the second exercise were averaged to obtain the final ranking scale. In practice the scores allocated by different subjects were found to correlate highly with one another and, as we shall see below, the results obtained in this analysis using the Index are in accord with those based on a manual/non-manual classification of occupations.

V EDUCATIONAL ATTAINMENT AND OCCUPATIONAL ACHIEVEMENT

The analysis presented below uses data from our province-wide sample to investigate the relationships between social background, education and occupation. Educational achievement is related to social background, as represented by father's education and occupation, and then both education and social background are related to subsequent occupational achievement. Table 2 breaks down the respondents to our survey into four categories depending on whether their father had complete or incomplete secondary education and also

Table 2: A breakdown of the sample into cells which provide an analysis of the subject's education in terms of father's education and occupation

Cell number	Father's education	Father's occupation	Mean years of school attendance	Proportion with		
				"A" levels	qualifications	University attendance
1	A	NM	15.8 (139)	.54 (87)	.80 (129)	.280 (45)
2	A	M	16.3 (3)	.60 (3)	.80 (4)	.000 (0)
3	NA	NM	11.0 (1,750)	.20 (362)	.29 (517)	.072 (130)
4	NA	M	10.0 (2,084)	.10 (214)	.14 (306)	.025 (54)
Overall			10.7 (3,976)	.164 (674)	.233 (958)	.056 (230)

A = complete secondary education: NA = incomplete secondary education. M = manual occupation: NM = non-manual occupation.

on whether their father had a manual or non-manual occupation. From the table we see that the number of fathers with both complete secondary education and a manual occupation is so small that the cell cannot be used for comparative purposes. This would seem to be an indication that in the case of fathers at any rate, possession of a complete secondary education meant that the individual was nearly certain to proceed to a non-manual occupation. From the three remaining cells we see that no matter which measure of educational attainment is used, if the individual's father completed secondary education and had a non-manual occupation, then that individual could expect a much higher level of educational attainment. Comparing cells (3) and (4) we see that for those whose fathers had not completed secondary education, educational chances were enhanced if their father possessed a non-manual occupation. Their chances of gaining "A" levels or qualifications were doubled while their chances of going to university were almost trebled. In short, while it was an advantage for respondents to have non-manual fathers, this advantage was enormously enhanced if their fathers had also completed secondary academic education.

An indication of the effect that the factors discussed above have on a subject's subsequent occupational achievement is given by Table 3. Here we have divided the sample into cells based not only on the father's background but also in whether or not the subject completed "A" levels. For each cell the proportion of individuals in non-manual occupations and the mean rank of the occupations of the cell members is given for both their first occupations and their occupations at the time the questionnaire was administered. Once again the cells corresponding to manual fathers with complete secondary education, (4) and (6), are almost empty and cannot be used in the analysis. Although some subjects with "A" levels enter manual jobs we see from the present occupation table that the proportion still in manual jobs is small and presumably by the time they reach their fathers' ages it will be smaller still.

Comparing cells (1), (2) and (3) we see the cumulative effect of educational and social advantage. Those having a non-manual father and "A" levels have a higher probability of entering a non-manual occupation than those who simply have "A" levels. Having the additional advantage of a father who has completed secondary education, (1), increases the probability still further. Conversely, from cell (5) we see that if a subject's father did not complete secondary education, had a manual occupation and the subject did not possess "A" levels then the probability of the subject entering a non-manual occupation is at its lowest. Our conclusion regarding the cumulative effects of these advantages is reinforced by the average ranks of the first occupations for each cell and also by the statistics for the present occupation.

From cells (5), (7) and (8) we see that while having a father in a non-manual occupation slightly increases one's own chances of entering a non-manual occupation, having a father who completed secondary education increases it very significantly. This is in spite of the fact that the subject does not have "A" levels himself. Indeed, comparing (7) and (3), we see that a subject whose father

Table 3: A breakdown of the sample into cells which provide an analysis of the subject's occupational achievement in terms of the father's education, father's occupation and subject's education. The father's occupation is given at the point at which the subject started work

Cell Number	Father's education	Father's occupation	Subject's education	First occupation			Present occupation		
				Number in cell	Proportion in non-manual occupation	Mean rank of cell members	Number in cell	Proportion in non-manual occupation	Mean rank of cell members
1	A	NM	A	71	.92	59	67	.97	67
2	NA	NM	A	337	.82	50	317	.93	61
3	NA	M	A	204	.64	42	199	.83	54
4	A	M	A	2	.50	54	2	1.00	66.5
5	NA	M	NA	1,887	.16	25	1,740	.30	35
6	A	M	NA	2	.50	32	2	.50	49
7	A	NM	NA	67	.64	46	64	.86	58
8	NA	NM	NA	1,425	.25	25	1,330	.64	42
Overall				3,995	.29	29	3,721	.53	42

A = "A" levels (subject): completed secondary education (father).

NA = no "A" levels (subject): incomplete secondary education (father).

M = manual occupation

NM = non-manual occupation.

completed secondary education and has a non-manual occupation but who has not "A" levels himself has almost as much chance of entering a non-manual occupation as a subject who has "A" levels but whose father did not complete secondary education and has a manual occupation. Moreover, when we compare the average ranks of first occupation we find that those in the former category, (7), actually have a higher rank than those in the latter category, (3). This bias in favour of category (7) increases when we consider the subject's present occupation. These figures indicate that the combined influences on the father's education and occupation is on a par with the influence of the subject's own education in so far as the rank and the manual or non-manual nature of the subject's occupation is concerned.

An analysis of the data presented for the subject's present occupation reinforces conclusions drawn from the data on the subject's first occupation. In particular, the advantages of having "A" levels or having a father who completed secondary education and has a non-manual occupation are very clearly illustrated. In fact those in cell (7) would appear, from the present occupation table, to have surpassed those in cell (3) and to have almost overtaken those in cell (2). This would seem to indicate that the influence of parental background has a more persistent effect than the influence of education. When the mean ranks of the non-manual occupations were estimated it was found that in the case of those cells which offered the highest probability of entering a non-manual occupation, the mean rank of the non-manual occupations entered into also tended to be higher. In short, not only were subjects more likely to enter a non-manual occupation, they were also more likely to enter a higher status non-manual occupation.

Table 3 can also be analysed in terms of the interaction effects which occur. Comparing the differences in achievement between cells (1) and (7) with the differences in achievement between cells (2) and (8) we find that the differences in the latter case are of the order of twice those in the former case no matter whether the differences are expressed in terms of proportion in non-manual occupations or mean rank and it does not matter whether they are for the first or present occupation. This indicates that the possession of "A" levels provides a much more significant boost to occupational achievement for those with non-manual fathers without complete secondary education than it did for those with non-manual fathers with complete secondary education. We can interpret this by noting that those whose fathers did not complete secondary education are likely to have an initially lower occupational status as compared to those whose fathers possessed "A" levels. Since starting at a lower status gives one greater possibilities of achievement in so far as there are more positions above one which represent achievement, it is hardly surprising that the possession of "A" levels was more significant for those whose fathers had not completed secondary education than it was for those whose fathers had completed secondary education. This interaction illustrates a classic mobility effect, viz., the lower the level from which a person starts, the greater the probability of upward mobility, simply because many more

occupational destinations entail upward mobility for men with low origins than for those with high ones (see Blau and Duncan, 1967, p. 402).

Similar interaction effects can be noted by comparing the differences between cells (1) and (2) with those between (7) and (8) and also by comparing the differences between cells (2) and (3) with those between (8) and (5). In the latter case, which considers the effects of having a non-manual rather than a manual father for subjects with "A" levels, whose fathers had not completed secondary education and also for subjects who did not have "A" levels and whose fathers had not completed secondary education, it is interesting to note that the differences are not nearly so clear cut. Those without "A" levels initially benefit less from having a non-manual father than those with "A" levels although the present occupational differences indicate that having a manual as compared to a non-manual father ultimately contributes to a greater difference in the case of those without "A" levels. It is difficult to draw any firm conclusion from this except perhaps to note that those who have "A" levels have a high probability of ending up in a non-manual occupation and therefore it should ultimately make little difference whether or not their fathers' have a non-manual occupation. Those who do not possess "A" levels and whose fathers have not completed secondary education have a high probability of remaining in a manual occupation unless their fathers had a non-manual occupation and therefore we would expect that ultimately this factor would make a considerable difference. Whether the subject has "A" levels or not, having a non-manual father seems to have roughly the same ultimate effect on occupational status.

Table 4: *Educational attainments of the different religious denominations in N. Ireland**

<i>Denomination</i>	<i>Proportion</i>		
	<i>With "A" levels</i>	<i>With qualifications</i>	<i>Attended university</i>
Roman Catholics	.09 (324)	.11 (398)	.02 (91)
Protestants	.11 (858)	.14 (1,079)	.03 (245)
Presbyterian	.12 (438)	.15 (537)	.03 (113)
Church of Ireland	.10 (260)	.12 (333)	.03 (83)
Methodist	.14 (82)	.17 (104)	.04 (23)
Baptist	.13 (18)	.17 (23)	.04 (5)
Other	.15 (108)	.21 (150)	.06 (46)
Overall	.11 (1,230)	.13 (1,545)	.03 (361)

*These figures are based on a random sample of 12,669 males, aged between 17 and 63, selected from the 1971 N. Ireland Census.

If we make the reasonable assumption that occupational achievement is causally dependent on a subject's education, his father's occupation and his father's education then the foregoing analysis enables us to draw some general conclusions about the nature of the causal relationship. The most striking conclusion is on the influence of education. Clearly, to possess "A" levels is a very significant aid to occupational achievement. Furthermore, in cases where the father completed his secondary education this proved not only a significant advantage to the father but also to the son, an indication perhaps of some kind of educational inheritance. It would appear that having a father who completed secondary education and is in a non-manual occupation effectively compensates for one's own lack of educational attainment as far as occupational achievement is concerned. We can sum up the influence of the variables concerned by noting that having a father with a non-manual rather than a manual occupation gives one 1.83 times the probability of entering a non-manual occupation, that having a father who completed secondary education rather than one who did not, gives one 2.65 times the probability of entering a non-manual occupation and that having "A" levels gives one 3.51 times the probability of entering a non-manual occupation. The effects of these advantages are cumulative though not additive.

VI EDUCATION, OCCUPATION AND RELIGION

When discussing the relationships between education, occupation and religion the first factual point to be established is that the levels of educational attainment and occupational achievement of Catholics are lower than those of Protestants. The first point is evident from Table 4 which compares the educational attainments of Catholics with those of Protestants as a group and with individual Protestant denominations. It is interesting to note that the Protestant educational attainment is by no means homogeneous with respect to the different denominations. In fact, there appears to be a well defined hierarchy which can also be shown to be reflected in the breakdown of the occupational achievements of the denominations. However, restricting ourselves to the simple Catholic/Protestant dichotomy we see that the level of Protestant educational attainment is substantially higher than that of Catholics. With respect to the question of occupational achievement, Aunger (1975) has carried a detailed analysis of the occupational structure from a religious perspective using the data of the 1971 Northern Ireland Census. He arrived at three main conclusions (i) ". . . there is a marked tendency for Protestants to dominate the upper occupational classes while Catholics are found predominately in the lower classes", (ii) ". . . Protestants are concentrated in the higher status industries, while Catholics are disproportionately represented in lower status industries", and (iii) "When occupations within the same class, and the same working context, are considered, it would appear that Protestants dominate the superior positions while Catholics are over represented in the lower status positions".

That low levels of educational and occupational achievement should go together is not surprising in the light of our earlier analysis. The fact that Catholics are less well educated would lead us to expect that their level of occupational achievement would be lower. The fact that they have a lower level of occupational achievement would lead us to expect that their children would be less well educated. In fact we have a self-perpetuating situation rather similar in some respects to that which Blau and Duncan (1967) found to exist among poor whites in the USA. However, the part played by religion is not at all clear. It is just that Catholics at some historical point (e.g., the famine) found themselves in a socially disadvantaged position and have subsequently remained there or does religion in some way act to maintain and reinforce the cycle? Two hypotheses come to mind. First, that the education supplied by the Catholic educational system is inferior to that supplied by the joint state/Protestant education system, thereby providing Catholics with a lower standard of education and placing them at a subsequent occupational disadvantage. The second hypothesis is that to be a Catholic in the Northern Ireland job market may prove in itself to offer a disadvantage similar to that which Blau and Duncan (1967) found that blacks experienced in the job market in the USA. We will consider each hypothesis in turn.

Table 5: *Dichotomised social variables related to the subject's educational attainments*

Variable	Years of Education		Proportion		
	Mean	SD	With "A" levels	With qualifications	Attended university
Father completed secondary education	15.8 (142)	4.2	.545 (91)	.802 (134)	.269 (45)
Father did not complete secondary education	10.5 (3,895)	2.8	.147 (615)	.208 (835)	.047 (189)
Father's occupation at time of subject's first job:					
Non-Manual	11.2 (2,402)	3.6	.212 (529)	.307 (767)	.079 (197)
Manual	9.9 (2,659)	2.2	.091 (247)	.126 (343)	.021 (57)
Urban Birthplace	10.8 (2,703)	3.1	.185 (520)	.252 (708)	.056 (157)
Rural Birthplace	10.1 (2,387)	2.7	.099 (242)	.151 (369)	.038 (93)
Migrated before aged 16	11.0 (862)	3.2	.197 (178)	.275 (249)	.075 (68)
Did not migrate before aged 16	10.3 (4,201)	2.9	.133 (574)	.190 (821)	.042 (181)
Protestant	10.5 (3,546)	2.9	.145 (528)	.207 (753)	.046 (167)
Catholic	10.2 (1,277)	2.9	.126 (168)	.183 (243)	.040 (53)
40 or under	11.2 (2,442)	2.8	.211 (546)	.281 (728)	.058 (150)
Over 40	9.8 (2,805)	2.9	.086 (243)	.142 (401)	.039 (110)
Overall	10.4 (5,135)	2.9	.146 (789)	.208 (1,128)	.048 (260)

From Table 5 we see that a number of variables in addition to those considered above can be shown to be related to educational achievement. In particular, the rural/urban nature of the subject's birthplace, the age of the subject and whether or not he migrated before the age of 16 are related to educational attainment. The relationships involved can probably be best explained in terms of opportunity. There were greater educational opportunities for those who were younger or lived in an urban area and those who migrate tend to migrate to areas of higher opportunity generally. All of the variables listed in the table cannot be considered to act independently on education. Thus, for example, to be born in a rural environment may be a disadvantage in part, at any rate, by virtue of the fact that there are greater proportions of manual workers in rural areas and there is consequently a higher probability of having a manually employed father. If we look at Table 6 we see that Catholics are at a disadvantage with respect to each of the variables considered in Table 5, with the exception of the age variable. Fewer Catholic fathers completed secondary education, more of them had manual jobs, more Catholics are born in rural areas

Table 6: *Distribution of Catholics and Protestants over the social variables which have been found to influence education*

	<i>Catholic</i>	<i>Protestant</i>
Father completed secondary education	.031	.041
Father did not complete secondary education	.969	.959
	1.000 (1,066)	1.000 (2,758)
Manual Father	.539	.519
Non-Manual Father	.461	.481
	1.000 (1,273)	1.000 (3,512)
Rural Birth Place	.535	.446
Urban Birth Place	.465	.554
	1.000 (1,300)	1.000 (3,524)
Migrated (by age 16)	.141	.187
Did not migrate	.859	.813
	1.000 (1,296)	1.000 (3,506)
Under 40	.527	.453
40 or over	.473	.547
	1.000 (1,330)	1.000 (3,638)

and fewer Catholics migrate. Thus, it could be argued that the lower educational attainments of Catholics is due to the cumulative effect of their social disadvantages. To test whether this was the case we weighed our sample so that when the cases were broken into 32 groups, based on the six dichotomous variables in Table 6, the number of Catholics in each group equalled the number of Protestants. This cancelled out the effect of the different Protestant and Catholic distributions on the other variables and meant that differences in education could be ascribed more readily to the religious difference. A comparison of educational attainments of Catholics and Protestants using the weighted data is given in Table 7.

Table 7 : Comparison between Catholic and Protestant educational attainments after weighing the sample to control for the effects of variables considered in Table 6

	Catholic	Protestant
Proportion with "A" levels	.151 (396)	.156 (408)
Proportion with qualifications	.214 (560)	.219 (573)
Proportion with university education	.048 (126)	.052 (137)
Mean years of education	10.5 (SD 3.0)	10.6 (SD 2.9)

From the table we see that Protestants have only marginally higher achievements with respect to the variables considered. The Chi-squared values for contingency tables based on the first three educational variables were very low and gave no reason to suppose that the distributions in educational attainment were significantly different for Catholics and Protestants. Thus, our analysis gives no support to the hypothesis that the Catholic educational system provides a lower standard of education, rather it suggests that the lower attainment rate of Catholics is due entirely to their disadvantageous social backgrounds.

From Table 8 we see that the factors which influence educational attainment are also related to occupational achievement. To eliminate the effect of the other social variables we have used the weighted data described above and Table 9 compares Catholic and Protestant occupational achievements for a number of educational groups. From the proportions of these in non-manual first occupations we see that Catholics who possess "A" levels, a qualification or a university education do not suffer an occupational disadvantage. Indeed, in the latter case their initial job probabilities are higher. However, the situation for the less well educated Catholics is completely different. Their probability of entering a non-manual occupation is significantly lower than that for Protestants (at a significant level of .005 on the Chi-squared test). The difference is equivalent to approximately 4.5 per cent fewer Catholics entering non-manual jobs. When we look at the situation for present occupations the difference has

Table 8: Dichotomised social and educational variables are related to the subject's first occupation

Variable	Proportion in non-manual first occupation	Rank of first occupation	
		Mean	SD
Father completed secondary education	.775 (110)	52.3 (142)	18.9
Father did not complete secondary education	.271 (1,062)	28.1 (3,913)	13.6
Attended university	.919 (238)	60.4 (259)	14.5
Did not attend university	.246 (1,231)	26.9 (5,006)	11.8
"A" levels	.762 (548)	48.2 (719)	17.4
No "A" levels	.203 (921)	25.4 (4,546)	10.3
Qualified	.703 (716)	46.3 (1,019)	17.9
Not qualified	.177 (753)	24.2 (4,246)	8.4
Father in non-manual job	.381 (922)	30.9 (2,420)	16.9
Father in manual job	.192 (511)	26.6 (2,662)	10.3
Protestant	.292 (1,038)	28.9 (3,556)	13.9
Catholic	.222 (285)	26.8 (1,281)	13.1
Migrated 0-16	.353 (308)	30.8 (873)	15.0
Did not migrate 0-16	.259 (1,090)	27.8 (4,206)	13.6
Urban birthplace	.328 (891)	30.9 (2,716)	13.7
Rural birthplace	.215 (515)	25.5 (2,391)	13.5
40 or under	.326 (799)	31.0 (2,454)	14.5
Over 40	.238 (670)	26.4 (2,811)	13.1
Overall	.279 (1,469)	28.5 (5,265)	14.0

Table 9: A comparison of the occupational achievements of Catholics and Protestants for different educational groups, using data weighted to control for the effects of variables considered in Table 6

		First occupation		Present occupation	
		Proportion in non-manual occupation	mean rank	Proportion in non-manual occupation	mean rank
With "A" levels	Protestant	.768 (294)	48.7	.915 (335)	60.0
	Catholic	.773 (264)	46.4	.884 (284)	55.0
Without "A" levels	Protestant	.212 (461)	25.6	.476 (958)	38.8
	Catholic	.168 (366)	24.6	.385 (792)	36.3
With qualification	Protestant	.701 (371)	46.2	.891 (448)	58.3
	Catholic	.698 (339)	45.8	.857 (385)	55.1
Without qualification	Protestant	.189 (384)	24.6	.451 (845)	37.7
	Catholic	.143 (290)	23.2	.359 (692)	35.0
University education	Protestant	.912 (124)	58.5	.977 (128)	66.9
	Catholic	.916 (116)	61.0	1.000 (118)	68.3
Non-university education	Protestant	.260 (631)	27.4	.519 (1,165)	40.6
	Catholic	.215 (514)	25.8	.424 (959)	37.2

risen to approximately 9 per cent. Thus, the disadvantage suffered initially by Catholics increases as their occupational careers progress. It is interesting to note that university educated Catholics are the one group who maintain their initial equality of probability of possessing a non-manual occupation. In all other cases the Catholic probability decreases relative to the Protestant one. The results obtained for the manual/non-manual distributions are supported in every case by those obtained from an analysis of the mean rank scores. It might be argued that these differences are due not to religious differences, but to some other social variable which we have not included in our weighting procedure. However, if this argument is to be sustained a variable would have to be put forward which had a deleterious effect on occupational achievement, but which did not have a similar effect on educational attainment and which applied more strongly to one religious group than the other. In the absence of such a variable we conclude that our original hypothesis has been partially validated. Less well educated Catholics experience an initial occupational disadvantage which increases in the course of their occupational careers. Catholics with "A" levels or qualifications do not experience an initial disadvantage but do experience a subsequent disadvantage. Catholics educated at university level do not experience any disadvantage, initially or subsequently.

The above results are probably the most easily interpreted in terms of Aunger's (1975) conclusions about the Northern Ireland occupational structure. He found that Protestants tend to predominate in the higher status industries and also that where Catholics and Protestants are working in the same industry and in the same context Protestants tend to occupy the superior positions. Given that there is very little social mixing between the two religions, particularly at the lower social levels, (Barritt and Carter, 1962, Ch. 4) this means that Catholics starting out are, on the one hand, influenced by a tradition of Catholics following certain types of lower status occupations while, on the other hand, they lack friends and relatives who, because of their personal experience, could help or encourage them to seek employment in the high status industries at present occupied predominantly by Protestants. There are factors which apply not just initially, but also cumulatively throughout an occupational career. On top of this there are strong grounds for believing that occupational discrimination on grounds of religion occurs in Northern Ireland (Cameron, 1969). Given that this is the case, it would be expected that Catholics suffer to a greater extent in so far as they are under-represented in positions of authority and influence to start with and, therefore, more likely to be on the receiving end of such discrimination. The anomalous position of Catholics who receive a university education can also be readily explained within the content of Aunger's findings. He found that Catholics in the professional and managerial groups tend to work in areas (e.g., education, church etc.) in which they are providing a service for their co-religionists but such services are also disproportionately represented in the supply of service to the whole community. Since university educated Catholics would tend to be supplying professional and managerial services to their co-religionists

they are hardly likely to find being a Catholic a disadvantage. Moreover, even though they are under-represented in supplying services to the community as a whole, this is probably offset by the fact that due to their generally lower social standing they will be under-represented in the professional and managerial groups. Our overall conclusion is that, except for the university educated, being a Catholic will, in itself, tend to be a disadvantage, the disadvantage increasing cumulatively throughout the individual's occupational career.

VII CONCLUSIONS

The conclusions to be drawn from our data are straightforward. Those who start from a socially advantageous position are likely to do better both educationally and occupationally. Clearly, they possess not only the personal advantages attached to such a background but in addition they have the advantage of an educational system biased in their favour. The Northern Ireland educational system, as at present structured, provides the better-off section of the community with personal advantages over and above those which they receive from having been born into an advantageous environment. A socially advantageous background also provides an occupational advantage, which appears to increase as an individual's career progresses. Although the occupational advantage generally derives from education it would appear that in some cases a strong enough social background can compensate for lack of educational attainment. The analysis in terms of religion indicated that while Catholics suffer no educational disadvantage as such, they are nevertheless caught in a cycle in which lower occupational status leads to lower educational attainment which leads to lower occupational status and so on. This cycle is particularly evident among the less well educated Catholics where it is reinforced by that fact that being a Catholic is a positive disadvantage in the job market.

The analysis has, of course, been based on cross-tabulations of our survey data. This approach is limited in a number of ways. Only a small number of variables can be considered at any one time which makes it difficult to form a general picture of their relative importance. It also means that we are limited to very simple cause and effect relationships rather than being in a position to form an overall picture which includes not only direct causal relationships but also indirect causal relationships e.g., to what extent is the father's education a direct influence in the son's occupational career and to what extent is it exercised indirectly through the son's education? To investigate these and similar questions requires a more sophisticated approach using multivariate statistical techniques. It is hoped to provide this in the near future. On the question of reliability, the data were collected on our behalf by the Census Office but without any direct control on our part. No reliability tests were carried out at the time but we hope

to use data collected by the Irish Mobility project in a later survey carried out independently of the first survey to check the results given here. These later data are much more detailed and should enable us to extend the analysis as well as to replicate it.

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