

# **Occupational Inheritance: The role of education and gender**

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## **Occupational Inheritance: The role of education and gender**

### **Abstract**

It is known that choice of occupation is influenced by family cultural resources, including social networks. Most work in this area has concentrated on paternal occupation and inheritance. This paper explores the effects of father's labour market sector (i.e. managerial or professional) and the educational attainment of both parents, using the National Child Development Study. It was found 1) that the children of professional fathers are found to a greater extent in the occupational than in the organisational sector of the labour market than the male children of managerial fathers; 2) that female children of managers are more likely to enter the occupational labour market than male children; 3) that educational and occupational attainment are mediated by both maternal and paternal education; and 4) that aspects of professional family culture could be identified which are associated with entry into professional occupations.

## **Occupational Inheritance: The role of education and gender**

### **Introduction**

This paper brings together perspectives from educational sociology and labour market theory to explore the effects of cultural capital on occupational inheritance in Great Britain. Much research has been carried out on the role of education and particularly higher education in facilitating intergenerational social mobility. From a functionalist point of view it has been argued that the need for highly qualified labour in advanced industrial societies will break down ascribed barriers to achievement. However, it has been shown that, despite ambitious education reforms in the post-war years, the children of the middle class still take up a disproportionate share of higher education and of more prestigious and financially rewarding occupations both in the UK and cross-nationally (Kelsall, Poole and Kuhn, 1972; Halsey, Heath and Ridge, 1980; Heath, Mills and Roberts, 1992; Blossfeld and Shavit, 1993). Disparities in cultural capital have often been put forward as a reason for this finding.

### *The Role of Cultural Capital*

Bourdieu and Passeron (1977) put forward the cultural capital hypothesis as an explanation for the educational and occupational success of middle class children. They argue that different classes and sectors of society socialise their children in the cognitive and personal skills which bring success in the social group to which they belong. This *transmissible* cultural capital leads to greater educational success for middle class children, (see also Halsey, 1977). Research in the UK (Kerckhoff and Trott, 1993), the USA (Mare, 1981; Hout, Raftery and Bell, 1993), and Europe (Robert, 1991; Blossfeld and Shavit, 1993), measuring cultural capital in terms of parental education, shows a strong relationship between the educational achievement of parents and their children. To date there has been little research, and none in the UK, which traces the role of cultural capital in mediating occupational inheritance, presumably because most nationally representative British surveys do not collect detailed information on parental education or on other important aspects of parental cultural capital. However, the recent release of the fifth sweep of the National Child Development Study (NCDS) containing both information on the education of parents and other aspects of family



culture, and on respondents' occupation, provides an opportunity to explore the cultural capital hypothesis in a British context.

While the aspect of cultural capital which has gained most attention is the analysis of the interlinking of the education system with social class, Bourdieu and Passeron suggest that there are complex differences in cultural inheritance among a number of social groups. Educability is only one feature of cultural capital. Children also acquire the values, aspirations, codes of conduct, discourses and linguistic practices of their social group of origin. This aspect of cultural capital will be referred to from now on as the discursive component of cultural capital. 'Cultural capital'<sup>1</sup> reflects the practices of particular social/occupational groups. This raises the possibility of families within the same broad class, but from different sectors of that class, transmitting rather different forms of cultural capital. In this context, perspectives from labour market theory become important.

#### *Higher education and service class occupations*

The service class (Goldthorpe, 1987) contains people who work in both occupational and organisational labour markets. The service class is defined by occupations which offer security of tenure and income and some, or a considerable amount, of autonomy in work. Occupational careers are characterised by specific occupational skills and qualifications, which are portable across employers. Organisational careers are characterised by advancement within careers structured by firm's internal labour markets (Dale, 1985). Broadly speaking, the professional sector of the service class are found in occupational labour markets and require formal educational qualifications. For the other broad grouping of occupations which comprises the service class; managers and administrators, formal educational qualifications are not so essential (see also Crompton & Sanderson, 1986, 1990), and the years invested in gaining higher education qualifications may have, at any rate in the past, been perceived as a hindrance in an organisational career. Somewhat different cognitive, social and personal skills are relevant to these two broad sets of occupations. These occupations are considered to be of similar desirability and therefore give a good testing ground to explore the importance of educational qualifications in the inheritance of middle class occupational status.

### *Credentialist and discursive components of cultural capital*

Bourdieu and Passeron argue that educational credentials legitimise the authority of people in middle class occupations. It is clear that at an aggregate level, educational credentials are a requirement of most professional occupations, but not of many managerial occupations. Educational credentials, whether at degree or sub-degree level, have two main roles in managerial careers; first, in certifying the knowledge of managers who depend on expert status for their authority, essentially professionals working in management contexts (e.g. accountants, personnel managers), second, and more recently, as a screening device for large companies at the point of recruitment, where the possession of a degree signals a particular type of trainability and perhaps the discursive cultural capital conferred by university education (Thomas, 1994). These roles for educational credentials have not been important in the past as suggested by the low percentages of British managers and senior executives who are graduates (Whitley, 1974; Savage, Barlow, Dickens and Fielding, 1992, Wotjas, 1996). In general, managerial authority is still based on organisational position, which is achieved through company-specific knowledge and training, (Thomas, 1994). Given the relative unimportance of educational credentials in the careers of contemporary British managers, it is clear that educational success should be a more important feature of the transmission of cultural capital to the children of professionals than of managers.

Although educational qualifications may serve as emblems of merit, it is clear that qualifications alone do not legitimate the authority of middle class groups. The high pay and job security of professionals is justified in terms of 'institutionalised altruism' (Crompton, 1990). Altruistic values must be important components of discourse which legitimates their authority. Roper (1994) has shown that the authority of managers is constructed in terms of problem-solving and hands-on expertise, within masculine networks of dominance and affiliation (see also Halford and Savage, 1995). In the case of families of managers, personal styles, for instance of sociability or assertiveness, may be important aims of socialisation. An aim of this paper is to examine evidence for the transmission of different values between children of managerial and professional families, in relationship both to educational success and to other middle-class occupational characteristics.

## *The role of Gender*

There is a considerable body of evidence to show that women are entering service class jobs in increasing numbers. However, women who maintain careers in the service class are to be found primarily in the occupational sector of the labour market, holding professional or semi-professional jobs which require educational credentials. Where preferment depends on uninterrupted careers, as in organisational careers, women are at a disadvantage and Davidson and Cooper (1992:128,133-141) cite evidence that many women managers do not marry, do not bear children, or if they do, take little time out of work during and after pregnancy. Women who hold occupational qualifications are more likely to maintain their position in the labour market after child-bearing than women without these qualifications (Dale, 1987; Dex, 1987). Occupational qualifications give more ports of entry, or re-entry, after career breaks.

This factor of occupational segregation by gender confuses a simple picture of educational and occupational inheritance which varies by paternal occupation. The daughters of managers may be as motivated to acquire credentials as the daughters of professionals, in pursuit of occupational rather than organisational careers.

In summary the initial aims of this paper were;

- 1) to examine the relationship of both paternal occupation and parental education in the inheritance of middle class occupations, differentiated into two sectors; professionals and managers,
- 2) to adduce some evidence for differential socialisation of children in professional and managerial families, reflecting different cultural capital in these families, and
- 3) to examine the extent to which occupational inheritance is modified by gender, examining in particular the educational and occupational achievements of daughters of managerial families.

## **Data and Methods**

The data was drawn from the NCDS and was provided by SSRU (Social Statistics Research Unit), City University, London. The NCDS is a longitudinal study of all children born between the 3rd and 9th of March, 1958, (approximately 18,000). Follow-up surveys have been conducted at intervals since then, most recently in 1991, when respondents were aged 33.

### *Parental Characteristics*

The NCDS holds data on father's (or father figure's) occupation when the respondent was aged 16, coded to the 1970 Socio-economic Group and to the 1970 Registrar General's Social Class. These two classifications could be combined to identify managers, professionals and 'other' occupations with some confidence, (for details of the construction of variables, see Appendix 1). The NCDS also records the age at which both parents completed their fulltime education and this variable was recoded to three categories: 'up to 16', (i.e. parents who did not receive upper secondary education), '17 to 19', (parents who received upper secondary education and perhaps some tertiary education) and '20+', (mainly parents who attended universities). These variables represent the basic social class and educational components of cultural capital. The NCDS records parents' aspirations for the respondent's education (when the respondent was aged 16) as; 1) 'leaving at minimum age' (16 in 1974), 2) leaving at age 18, and 3) continuing into tertiary education. This variable is also treated as an index of family cultural capital.

### *Respondents' Characteristics*

The NCDS holds information on the respondent's own occupational aspirations and values at age 16 and these variables are used to explore whether different occupational socialisation is characteristic of managerial and professional families. Respondents' occupational aspirations were recoded to 1) semi-professional occupations, such as teaching or nursing, which were popular for girls; 2) professional occupations, doctors, lawyers, architects etc.; 3) Managerial occupations and 4) general managerial/professional. The fourth category comprised

respondents who gave no further detail on their aspirations. Because of low numbers in categories 3) and 4) they were combined. No important differences were found in cross-tabulations of the two versions of this category with the relevant variables. Other occupational aspirations were coded into an 'other' category.

Respondents were also asked which features attracted them to the chosen occupation. This variable was recoded into a five-category variable designed to reflect features of middle-class occupations: 1) Intellectual demands, 2) Pay and prospects, 3) Variety, 4) Helping and 5) 'Other' (including all other features cited).

The NCDS records the respondent's highest educational qualification and their present or most recent occupation. The highest qualification variable was recoded to the Census codeframe for tertiary qualifications: 1) Census Level A/B, (degree or higher degree); 2) Census Level C (vocational tertiary, i.e. qualifications which are below degree standard but above A-level GCSE standard, i.e. teaching certificates, non-degree nursing qualifications, other non-graduate professional and technical qualifications such as HND/HNC, BEC/TEC Higher, etc.); and 3) 'Other', (i.e. all lower qualifications or no qualifications). Present or most recent occupation was coded in the 1980 Socio-economic Group and Registrar General's Social Class and was recoded in a similar way to that for father's occupation. A category of 'Ancillary/Supervisory' (i.e. lower professional occupations such as nursing, teaching, social work, and 'new' professions, such as journalism) was derived in addition to 'Managerial/administrative' and 'Professional' as this was considered to be of interest both for women respondents and for other respondents at this stage in the lifecycle (See Appendix 1 for more detail).

Finally, respondent's performance on tests at age 11, (coded into three categories; 'low' 'mid-range' and 'high'), was included in some analyses as a control for the effects of natural ability. Although parental cultural capital has affected children's performance on tests by age 11, there are still considerable disparities between tests at this age and later educational and occupational attainments, (Fogelman, 1983; see also McGurk, 1975, for a review of IQ testing in childhood).

The variables were drawn from three sweeps;

1969 (respondents aged 11), Ability test scores;

1974 (respondents aged 16), Parental education and Father's occupation, Parents' aspirations for the respondent's education and Respondent's occupational aspirations and values;

1991 (respondents aged 33), Respondent's highest qualification and Respondent's occupation.

Due to sample attrition, differences in achieved samples between surveys and missing values, the initial 1991 sample of 11,407 cases was reduced to approximately 6000 cases (varying somewhat with the analysis reported). The variables in the reduced sample retained similar proportions in categories as the variables in the original sample, with one exception, ability scores at age 11. A slightly greater proportion of respondents with low scores on tests at 11 were lost, with a proportionate over-representation of respondents with middle range and high scores. (See Appendix 1).

The analysis proceeds in two stages: First of all the relationships between important variables are established by cross-tabulations. It would be cumbersome to report all cross-tabulations and this section of the paper focusses on 1) the relationship between parental education, paternal occupation and parental aspirations for respondent's education; 2) the relationship between paternal occupation and respondent's educational attainment; 3) the relationship between paternal occupation and respondent's occupational aspirations/values; and 4) the relationship between paternal occupation and respondents' occupation at age 33. Where relevant, gender and/or ability test scores are included in cross-tabulations.

Second, loglinear modelling is used to determine the part played by these variables in determining respondent's occupational destination at age 33. Here the likelihoods of the sons and daughters of managers and professionals entering managerial or professional occupations are examined and the effects of paternal occupation and parental education on these likelihoods is estimated. Test scores at age 11 and highest qualification are included in order determine whether parental characteristics have an effect on occupation independently of

measured ability in childhood and educational credentials. Unfortunately it was impossible to include the variables measuring respondents' work values and aspirations as this would have meant a loss of approximately two thousand cases.

*Parental Education, occupation and aspirations for Respondents' education*

In order to explore the credentialist component of cultural capital theory, this section briefly describes the relationship between the educational attainments of both parents, father's occupation, and parental aspirations for the educational attainment of their children. Inspection of the marginals in Table 1 shows that a higher percentage of fathers who are professionals stayed in full-time education beyond the age of twenty (approximately 40%) than did fathers who are managers (approximately 10%). Of course, higher percentages than these of both groups are likely to have tertiary level qualifications, but these will have been gained through part-time study. Examination of the diagonals of the crosstabulations of mother's and father's education contained within father's occupation categories shows that there is a tendency to partnerships between parents with similar levels of education, but also considerable educational heterogamy. Summarising across father's occupational categories, over 40% of well-educated mothers had less educated partners. These mothers bring cultural capital to the household and can be expected to influence their children's educational aspirations and achievements.

**Table 1 : Father's Education by Mother's Education by Father's Occupation \***

**Father : Professional**

	<u>Mother's Education</u>			
<u>Father's Education</u>				
Left school at age:Col%	< 16	16-19	20+	%Tot
< 16	38.0	11.8	4.8	20.5
16-19	37.2	54.2	12.7	39.9
20+	24.8	34.0	82.5	39.6
	100%	100%	100%	100%
N	129	144	63	336

**Father : Managerial**

	<u>Mother's Education</u>			
<u>Father's Education</u>				
Left school at age:Col%	< 16	16-19	20+	%Tot
< 16	70.2	30.0	11.1	51.3
16-19	25.5	60.0	36.5	38.8
20+	4.3	10.0	52.4	9.9
	100%	100%	100%	100%
N	483	310	63	856

**Father : Other**

	<u>Mother's Education</u>			
<u>Father's Education</u>				
Left school at age:Col%	< 16	16-19	20+	%Tot
< 16	90.6	63.1	27.3	85.9
16-19	8.6	31.7	34.8	12.1
20+	0.8	5.3	37.9	1.9
	100%	100%	100%	100%
N	4023	647	66	4736

\* All variables recorded in parent's interview when respondent aged 16

Parents had been questioned about their aspirations for the child's education when cohort members were aged 16. Parents from professional families were more ambitious for their children's education than other parents, at all levels of the measured ability of the child at age 11 (see Table 2).



**Table 2 : Parents' aspirations for child's education by Ability tests at 11 by Father's occupation (Col%)\***

	<u>Ability Tests</u>			
	Low	Mid	High	N
<u>Parents' Aspirations</u>				
<b>Father:Professional</b>				
Leave min age	20.8	5.4	2.2	15
ft ed to 18	16.7	29.0	11.6	57
ft ed after 18	54.2	61.3	82.7	256
DK	8.3	4.3	3.6	14
	100%	100%	100%	
N	24	93	225	342
<b>Father:Managerial</b>				
Leave min age	43.4	19.2	5.5	136
ft ed to 18	26.2	32.7	23.8	241
ft ed after 18	20.5	43.1	66.4	465
DK	9.8	5.1	4.3	47
	100%	100%	100%	
N	122	297	470	889
<b>Father : Other</b>				
Leave min age	59.3	36.0	18.3	1878
ft ed to 18	21.1	31.1	29.3	1351
ft ed after 18	12.9	26.1	46.5	1404
DK	6.7	6.9	5.9	322
	100%	100%	100%	
N	1607	1768	1580	4555

\* Aspirations and occupation recorded in parent's interview when respondent aged 16

Approximately 47% of parents where the father is not in a professional or managerial occupation wish their high ability children to receive higher education, compared with approximately 83% of high ability children of professional fathers, and 66% of high ability children of managerial fathers. Further analysis, not shown here, showed that, although test scores were slightly higher for daughters than sons, parents had lower aspirations for their education, but not markedly so, and the gender differentials were similar within father's occupation categories. That is to say, managerial parents had lower aspirations for their daughters than professional parents, but these aspirations were not much lower than for their sons. It can be noted in passing that, because of the greater size of the category, most high ability children have fathers in 'Other' occupations.

In summary, these statistics confirm that, for this sample, British managers were much less likely to hold degrees than professionals. Professionals were much more ambitious for their

children's education than managers and the effects of parental occupation persisted despite the respondent's measured ability at age 11. In general, these results support the hypothesis that socialisation towards educational credentials is more important in professional families than in managerial families.

### *Respondents' Educational Attainment*

Do these parental characteristics translate into greater educational achievement on the part of their children? Consistently with parental aspirations, the children of professionals, of whatever level of ability, were much more likely to gain degrees than the children of managers or 'other' workers.

**Table 3 : Highest Qualification\* at age 33 by Ability tests at 11 by Father's Occupation (Col%)**

	<u>Ability Tests</u>			
	LOW	MID	HIGH	
<b>Father:Professional</b>				
<u>Qualification</u>				N
Below C	60.0	49.5	35.0	140
Census level C	24.0	29.0	9.7	55
Census level A/B	16.0	21.5	55.3	149
	100%	100%	100%	
N	25	93	226	344
<b>Father:Managerial</b>				
<u>Qualification</u>				N
Below C	85.2	66.2	47.7	527
Census level C	12.3	20.4	17.4	158
Census level A/B	2.5	13.4	35.0	208
	100%	100%	100%	
N	122	299	472	893
<b>Father : Other</b>				
<u>Qualification</u>	Low	Mid	High	N
Below C	93.2	82.8	63.7	3984
Census level C	5.7	11.9	15.1	542
Census level A/B	1.1	5.3	21.2	449
	100%	100%	100%	
N	1615	1776	1584	4975

**\* QUALIFICATIONS:**

Census Level A/B - degree and postgraduate degree

Census Level C - Above A-level but below degree level

Below C - qualifications up to A-level GCE/GCSE

The mid and low ability children of professionals were also more likely to gain Census level C (i.e. vocational tertiary) qualifications than the mid and low ability children of managers. At that time these qualifications could lead to low professional jobs, such as nursing, teaching, social work. It seems clear that the children of professionals were more successful in gaining credentials than children from other social groups.

Gender has some effect on educational attainment for this birth cohort, which left school in the mid 1970s. However, although daughters were less successful educationally than sons, this is less marked than the effects of father's occupation which also proxies, to some extent, parental education, (see Table 4).

**Table 4: Highest Qualification\* at age 33 by Father's Occupation by gender**

	<u>Father's Occupation</u>			
<b>Gender :men</b>				
<u>Qualification</u>	Other	Manage	Profess	N
Below C	79.2	59.4	36.4	2264
Census level C	10.6	15.4	16.2	354
Census level A/B	10.2	25.1	47.4	442
	100%	100%	100%	
N	2453	434	173	3060
<b>Gender :Women</b>				
<u>Qualification</u>				N
Below C	80.9	58.6	45.0	2387
Census level C	11.2	19.8	15.8	401
Census level A/B	7.9	21.6	39.2	364
	100%	100%	100%	
N	2522	459	171	3152

**\* QUALIFICATIONS:**

Census Level A/B - degree and postgraduate degree  
 Census Level C - Above A-level but below degree level  
 Below C - qualifications up to A-level GCE/GCSE

Although the daughters of managers were slightly more successful in gaining Census level C qualifications, the daughters of professionals were much more successful in graduating and overall are much more likely to hold tertiary level qualifications. This finding is not consistent with the suggestion put forward earlier that daughters of managers and professionals might be equally motivated to gain credentials in pursuit of an occupational career.

In summary, both male and female children of professionals are more successful educationally than the children of managers. This is so despite measured ability at age 11. This difference in educational achievement points unequivocally to differences in cultural capital transmitted within managerial and professional families.

### *Occupational Aspirations and Work Values*

Educational credentials are not the only factor considered by employers. Is there any evidence of differential occupational socialisation between managerial and professional families? Table 5 shows that, at age 16, a larger proportion of the male children of professionals than managers aspired to higher professional occupations (e.g. medicine, law). Similar proportions of both groups aspired to managerial occupations.

**Table 5 : Respondent's Occupational Aspirations at Age 16 by Father's Occupation by Gender (Col%)**

(Col%)

<u>Father's Occupation</u>				
<b>Gender :men</b>				
<u>Aspirations</u>	Profes	Manage	Other	Total
Low Profess	5.5	5.8	3.3	90
High Profess	32.4	15.2	6.0	215
Gen manage/prof	26.6	24.1	15.1	397
Other	32.5	54.9	76.0	1625
	100%	100%	100%	
N	139	328	1998	2327
<b>Gender :women</b>				
<u>Aspirations</u>	Profes	Manage	Other	Total
Low Profess	35.5	34.5	28.0	755
High Profess	8.4	3.3	1.8	62
Gen manage/prof	12.3	11.7	5.5	176
Other	43.9	50.5	50.5	1569
	100%	100%	100%	
N	155	394	2013	2562

Consistently with the hypothesis that daughters of managers would be more likely than sons to aim for occupational sectors of the labour market, the daughters of professionals and managers were equally likely to aspire to low professional occupations, mainly the gendered occupations of teaching, nursing and social work. Low proportions of daughters of these two groups aspired to managerial occupations.

Respondents had also been asked which feature of their chosen occupation was most important. More sons of professionals put emphasis on intellectual or altruistic aspects of their choice of occupation, and fewer on pay and prospects than sons of managers (see Table 6). Variety was cited by similar proportions as the most attractive feature of their chosen occupation. When compared with children from other occupational backgrounds, the sons of professionals were more distinctive than the sons of managers.

**Table 6 : Respondent's Work Values at Age 16 by Father's Occupation by gender(Col%)**

		<u>Father's Occupation</u>			
<b>Gender :men</b>					
<u>Values</u>		Profes	Manage	Other	Total
Intellectual		16.6	10.6	11.0	267
Pay/prospects		23.4	33.0	38.2	868
Variety		27.6	26.3	18.7	483
Helping		11.7	6.8	3.7	109
Other		20.7	23.3	28.4	646
		100%	100%	100%	
N		145	328	1889	2327
<b>Gender :women</b>					
<u>Values</u>		Profes	Manage	Other	Total
Intellectual		10.3	4.8	6.2	162
Pay/prospects		13.5	16.9	27.7	653
Variety		39.1	38.5	24.2	708
Helping		25.6	24.4	20.8	560
Other		11.6	15.4	21.0	508
		100%	100%	100%	
N		156	397	2036	2591

There was little difference between the work values of the daughters of these two groups, although a higher proportion of the daughters of professionals cite intellectual demands as the most attractive feature of their chosen occupation. Compared with the daughters of 'other' occupations, the daughters of professionals and managers were less likely to cite pay and prospects, slightly more likely to cite helping and considerably more likely to cite variety as desirable features of jobs. The most marked difference was between girls and boys, with a relatively low proportion of girls citing pay, prospects or intellectual demands as important factors in job choice and higher proportions citing variety and altruistic features.

The children of managers and professionals, both boys and girls, showed less instrumental (i.e. emphasis on pay and prospects) work values than children from other backgrounds, a

finding which is consistent with research reported by Goldthorpe, Lockwood, Bechhofer and Platt (1969) who found 'affluent' workers to be instrumental in their work values. They attribute this instrumentalism to 'labour contract' employment relations as opposed to the 'service' employment relations of managers and professionals, (see also Devine, 1992:20-27 for a discussion of working class instrumentalism). It seems likely that family culture had inculcated service class values into the children of managers and professionals, a form of work pre-socialisation which may be attractive to employers.

### *Summary*

The above sections show that, in comparison with managerial families, parents from professional families were more highly educated and had greater educational aspirations for their children, who in turn are more successful in acquiring educational credentials. Other evidence was presented which suggests that, in aggregate, children from these two groupings showed somewhat different occupational aspirations and values, which differed in turn from those of children from other occupational backgrounds. The differences between managerial and professional families in aspirations for their children's education and actual educational attainment were much greater than differences by the gender of child. However, there were marked gender differences in occupational aspirations, values and attainment between their sons and daughters, irrespective of sector.

### *Occupational Destinations*

A primary aim of this paper is to examine the degree of occupational inheritance, whether mediated by credentialist or discursive aspects of cultural capital. It was hypothesized initially that sons of managers would be more likely to enter managerial occupations, while sons of professionals would be more likely to enter professional occupations, but that this would not be the case for daughters, who might be equally likely to aim for professional (whether lower or higher) occupations. It was found that much higher proportions of the sons of professionals enter professional or ancillary occupations, (with ancillary occupations being partly composed of the lower professions or 'new' professions such as journalism, industrial relations).

Contrary to the hypothesis, similar proportions of sons of professionals and managers enter managerial occupations.<sup>2</sup> Both these middle class groups are at an advantage in entering middle class occupations over men from other social backgrounds.

**Table 7 : Respondent's Present or most Recent Occupation by Father's Occupation by Gender (Col%)**

		<u>Father's Occupation</u>			
<b>Gender :men</b>					
<u>Occupation</u>		Profes	Manage	Other	N
ancill/super*		23.7	18.0	10.6	380
Professional		18.5	11.3	5.7	222
Managerial		31.8	33.2	17.4	627
Other		26.0	37.6	66.2	1831
		100%	100%	100%	
N		173	434	2453	3060
<b>Gender :women</b>					
<u>Occupation</u>					N
ancill/super		40.4	29.6	18.4	669
Professional		7.6	5.4	1.3	71
Managerial		15.2	12.9	8.5	300
Other		36.8	52.1	71.8	2112
		100%	100%	100%	
N		171	459	2522	3152

\* Codings are based on the SEG classification (See Appendix 1). The Ancillary/supervisory category includes lower professional workers (e.g. teachers, nurses), journalists, artists and supervisors of non-manual workers

The largest proportion of the daughters of the middle class are to be found in the ancillary category, i.e. in the lower and 'new' professions. However, daughters of professionals are better represented than daughters of managers in both professional occupation categories, consistently with their greater educational achievement. The daughters of managers show occupational aspirations similar to the daughters of professionals. It is possible that managerial parents' lesser aspirations for the education of their daughters and the lesser attainment of the daughters may reflect a relative inability of managerial families to transmit the cognitive skills, competencies and confidence which lead to educational success, the credentialist component of cultural capital. The percentage of women from any social background in managerial occupations is low. Generally, women from more advantaged backgrounds are to be found in professional occupations, primarily the lower professions, where employment patterns which are favourable to women with children have been developed.

These results give only partial support to the initial hypotheses. The children of professionals are more likely than the children of managers to be found in professional occupations. However, the results for children of managers are much less clear-cut and it is possible to infer that the only important factor at work is the superior educational achievements of children of professionals. Therefore it is necessary to carry out a multivariate analysis to determine whether paternal occupation has an effect independently of educational achievements, and whether that effect varies by gender. Because of the categorical nature of most variables a loglinear analysis was most appropriate. Loglinear analysis allows simultaneous comparisons to be made of the effects of parental characteristics and respondent's qualifications on the likelihood of entering managerial, professional or ancillary occupations as compared with 'Other' occupations.

#### *Loglinear Model of Occupational Sector Attained*

The independent variables were gender, father's occupation, parental education, ability tests at 11 and tertiary level qualifications. Ability tests at 11 was included to control to some extent for natural ability. Tertiary qualifications were included in order to determine whether there were effects, additional to educational achievement, of paternal occupation and parental education on respondents' occupational attainments. Interactions between gender and parental characteristics were also fitted in order to test the hypothesis that the daughters of managers have a greater likelihood of entering the occupational labour market than sons of managers. The variables for aspirations were not included as the sample is not large enough to fit such a complex model, and this section of the analysis focusses on the relative importance of paternal occupation in determining the occupational destinations of daughters and sons. The General Linear Interactive Modelling (GLIM) 3.77 package was used.



**Table 8 : Loglinear Model of Respondent's SEG by Gender, Father's Occupation, Mother's and Father's Education, Ability tests at age 11 and Qualifications**

Condensed Seg Compared with 'Other'	Variable	Est(se of est)	ChiSq(df) p
	<u>Gender</u>		299(3)<.001
Ancill/super	female	0.57(.109)*	
Professional	"	-2.27(.293)*	
Managerial	"	-0.65(.113)*	
	<u>Father's SEG</u>		353(6)<.001
Ancill/Super	Profes	1.73(.225)*	
"	Manage	1.09(.153)*	
Professional	Profes	2.10(.247)*	
"	Manage	1.24(.185)*	
Managerial	Profes	1.53(.208)*	
"	Manage	1.21(.126)*	
	<u>Mother's Education</u>		304(6)<.001
Ancill/Super	16-19	1.01(.136)*	
"	20+	2.04(.299)*	
Professional	16-19	0.98(.169)*	
"	20+	1.95(.354)*	
Managerial	16-19	0.99(.114)*	
"	20+	1.59(.292)*	
	<u>Father's Education</u>		438(6) <.001
Ancill/Super	16-19	1.15(.140)*	
"	20+	2.27(.254)*	
Professional	16-19	1.52(.166)*	
"	20+	2.65(.279)*	
Managerial	16-19	1.07(.118)*	
"	20+	1.92(.242)*	
	<u>Ability Tests at 11</u>		650(6) <.001
Ancill/Super	Mid test	0.90(.108)*	
"	High test	1.78(.103)*	
Professional	Mid test	1.21(.245)*	
"	High test	2.53(.228)*	
Managerial	Mid test	0.73(.106)*	
"	High test	1.46(.102)*	
	<u>Qualifications</u>		1920(6)<.001
Ancill/Super	Level C	2.48(.101)*	
"	Level A/B	3.36(.123)*	
Professional	Level C	2.91(.193)*	
"	Level A/B	4.66(.183)*	
Managerial	Level C	1.37(.114)*	
"	Level A/B	2.45(.129)*	
	<u>Father's Seg by gender</u>		12(6)<.05+
Ancill/Super	profes	-0.28(.290)	
"	manage	-0.29(.194)	
Professional	profes	0.32(.429)	
"	manage	0.50(.330)	
Managerial	profes	-0.28(.320)	
"	manage	-0.47(.205)	
	<u>Mother's Ed by gender</u>		22(8) <.005
Ancill/Super	16-19	-0.15(.174)	
"	20+	-0.41(.376)	
Professional	16-19	0.59(.320)	
"	20+	1.15(.506)*	
Managerial	16-19	-0.36(.189)	
"	20+	-0.29(.425)	
	<u>Father's Ed by gender</u>		21(8) <.01
Ancill/Super	16-19	-0.37(.180)*	
"	20+	-0.63(.314)*	
Professional	16-19	0.25(.327)	
"	20+	0.37(.434)	
Managerial	16-19	-0.29(.191)	
"	20+	-0.82(.362)*	

\* significant at .05 level or less

+ one-tailed probability

Loglikelihood with Constant only: 35373 (df 1943) Loglikelihood with Model fitted: 4681(df 1872)

Results are reported in Table 8. The Chi Square for the effect of the independent variable is reported, as an overall test of whether or not the independent variable has a statistically significant effect. The parameter estimates reported represent the associations of particular categories of independent variables with the likelihood of entering a particular middle-class occupation, in comparison with the base category, which is set to 0. A positive estimate signals an increase in likelihood for the particular category and a negative estimate signals a decrease.<sup>3</sup> The base category for this model is: being a man in an 'Other' occupation, with low ability test scores, no tertiary qualifications, having parents who had completed their education by age 16, and having a father in an 'Other' occupation.

#### *Overall Effects of the Independent Variables*

The three variables representing parental characteristics all have statistically significant effects on occupational destination. Gender and gender interactions with parental characteristics were statistically significant with one exception, the interaction between gender and father's occupation. Although the Gender effect is sizeable, the Chi Squares for the gender interactions are small, and this will be discussed in more detail in the next section.<sup>4</sup>

#### *Main effects of Paternal Occupation and Parental Education*

Main effects, as compared with interactions, indicate the substantial association between the independent and dependent variables. The estimates for father's occupation show that the children<sup>5</sup> of both professionals and managers were advantaged in entering all middle class occupational categories, and this is the case when both qualifications and ability (as measured at age 11) are controlled for. The advantage was most marked in the case of children of professionals entering professional occupations. Examination of the confidence intervals for the two estimates shows that the greater likelihood of children of professionals over children of managers to enter the professions is statistically significant. This is the case despite the educational status of their parents and their own qualifications, which points to the importance of discursive aspects of cultural capital and is consistent with Savage et al's (1992) contention that the professions exert stronger intergenerational closure.

Both mother's and father's education have effects on childrens' achievements, which are additional to paternal occupation, ability tests and qualifications, with the children of better-educated parents being more likely to enter professional, managerial or ancillary/supervisory occupations. The effects for parental education are stronger for entry into the professional and ancillary (lower and 'new' professions) categories, underlining the importance of parental cultural capital for these occupations. It can be seen that father's education has stronger effects than mother's education, probably reflecting the lower percentage of highly educated mothers. Generally, the model suggests that there is specific occupational inheritance for the children of professionals, but not for the children of managers. This inheritance cannot be attributed to the possession of credentials per se<sup>6</sup> but is influenced by family culture.

### *Gender and Gender Interactions*

Gender and gender interactions with parental characteristics were fitted. The main effect for gender compares the occupational destinations of men and women irrespective of parental characteristics. The interactions partition out any extra effects (either positive or negative) which are due to the combination of parental characteristics with the sex of the respondent. Interactions can be interpreted in two ways. Comparing within women, the estimates adjust for differences due to parental characteristics. Comparing within parental characteristics, the estimates adjust for differences due to gender. Substantively, these two interpretations are equivalent as shown in the earlier discussion and hypothesis. This is that the daughters of managers would not have the same likelihood of entering managerial occupations as sons of managers, all other things being equal.

The main effect for gender shows that, taking other variables into account, women are more likely to be found in ancillary and less likely to be found in professional or managerial occupations than men. This sample confirms the gendered distribution of jobs reported in other studies (Dex, 1987; Crompton and Sanderson, 1990). Although the size of the interaction between gender and father's occupation is small, the estimates suggest that, when other variables such as qualifications are controlled for, the daughters of both professionals and managers are more likely to enter professional rather than managerial careers. This is most marked for daughter of managers. Similar effects can be seen in the interactions between the

parental education variables and gender, with the daughters of more highly educated parents having a greater relative likelihood of entering professional occupations and less likelihood of entering ancillary or managerial occupations than sons. Given the preponderance of women in ancillary occupations, (see Table 7), the estimates for ancillary occupations may seem counterintuitive. However, the overall effect of gender has been controlled for. The effects for mother's education are not noticeably stronger than for father's education, except that highly educated mothers accentuate the tendency for daughters to enter professions.

The gender interactions are not strong, and gender has a relatively uniform effect for all women in the sample, given that the effects of qualifications have been controlled for. This is to increase their likelihood of entering low professional occupations. However, the gender interactions are consistent with the hypothesis put forward in the introduction which is that the daughters, compared with the sons, of managers would tend towards occupational rather than organisational careers.

### *Discussion*

This paper set out to examine the effects of cultural capital in a British context. In analyses of this type cultural capital is usually measured by the level of parental education. It is often assumed that the transmission of the cognitive and discursive skills of highly educated parents mediate educational and hence occupational success. However, previous British studies, (Kelsall et al, 1972; Heath et al, 1992) show that people of middle-class origin enjoy advantages additional to those conferred by their educational achievement. It is not necessarily the case that these advantages derive from cultural capital. Property assets or social networks may partly explain these findings. However, the NCDS gives the opportunity to explore differences in family culture in more detail than has been possible previously. The managerial sector of the British middle class is marked by rather low levels of educational achievement, although, broadly speaking, enjoying similar employment relations to those of professionals. Therefore they give an appropriate test-case for examining the role of educational credentials in the inheritance of middle-class occupations.

It was hypothesised that educational credentials would play a more important role in the careers of the children of professionals. It was found that this was the case with the children of professionals obtaining better qualifications for given levels of ability. It was also hypothesised that the daughters of managers would seek educational credentials in order to enter the occupational labour market. While the daughters of managers aspired to enter the occupational labour market and were more likely, when qualifications were controlled for, to enter the occupational labour market than sons of managers, their educational attainment did not match that of women from professional families and they were less successful in obtaining professional or semi-professional jobs. It seems likely that this is due to a relative failure of managerial families to transmit the relevant cultural capital. These results confirm the enduring importance of the credentialist component of cultural capital. However, the findings for this sample confirm previous findings (Kelsall et al, 1972; Heath et al, 1992) that factors other than educational attainment also influence occupational destinations.

It was initially hypothesised that middle-class sons would capitalise on family cultural capital, by continuing in their fathers' occupations, i.e. the sons of professionals would tend to inherit professional occupations and the sons of managers would tend to inherit managerial occupations. However, while there was evidence for this for professional families, there is little evidence for managerial families. It is possible that this is partly due to the age of respondents, and more children from managerial families may reach managerial status later in life (see note 2). However, Savage et al (1992), basing their findings on older samples, do not find a strong effect of specific managerial occupational inheritance within the middle class. It was shown earlier that the sons of professionals are more likely to aim for professional occupations and have more distinctive work values than the sons of managers, and it is plausible that these features of family culture also influence their destinations. In conclusion, this paper set out to explore the importance of cultural capital within the managerial and professional segments of the middle class. Cultural capital, as measured by parental educational achievement, facilitates entry into all the middle class occupational categories identified. Evidence is found which suggests that cultural capital, of either a credentialist or discursive type, is more influential in the transmission of professional than of managerial occupations.

## Endnotes

1. Much of Bourdieu's work concentrates on the analysis of 'high culture', i.e. culture as it is commonly understood, rather than on culture as technically defined in anthropology, that is, the complex of material and symbolic processes which make up the culture of a society, or a group within a society. However, as an anthropologist, Bourdieu does not make a distinction of type between elite and popular culture (Bourdieu, 1984:1-2). He argues that dominant groups are able, partly through the education system, to allocate greater symbolic value to their culture. Dominant groups control intergenerational transmission of this culture, through the family and through the school, to serve the interests of their social group. These more highly valued cultural practices are then analogous to genetic or monetary capital, hence the concept of cultural capital (Bourdieu and Passeron, 1990, pp 29-33).

2. Respondents were aged 33 at the time of the survey. It is possible that some respondents from managerial families are in occupations coded 'other' and are en route to a managerial job. Managers typically reach this title and status later in life than professionals (Mills, 1995). Additionally the sons of professionals may attain this status earlier than the sons of managers because their educational qualifications lead to recruitment into fast-track managerial careers, or recruitment into 'expert' sectors of management.

3. Log-linear analyses give estimates for the distribution of all variables entered. These have been omitted for reasons of space, as have estimates for such terms as the distribution of father's occupation by gender. These types of estimates are omitted by default in logit analyses.

The confidence interval for the estimate of the effect of a category of an independent variable can be calculated by doubling (or more strictly multiplying by 1.96) the standard error for the estimate to give a .05 level of confidence. The confidence interval subtracted from, or added to, the estimate gives the upper and lower bound of the estimate with 95% confidence. If the upper bound of an estimate for one category of an independent variables does not overlap with the lower bound of the estimate for another category of the same independent variable, it can be concluded that the two categories have effects on the independent variable which are different at the .05 level of statistical significance.

4. The Chi Squares for ability tests and tertiary qualifications are large. However, it cannot be assumed that they have a greater effect than family characteristics. To some extent they are likely to proxy unmeasured family characteristics (see Mare, 1993 for a discussion of this issue). They were entered into the equation in order to test whether the effects of family characteristics on occupational destinations (reported in the next section) remain statistically significant when human capital, whether innate or acquired, is taken into account.

5. Strictly speaking, since both gender and gender interactions with parental characteristics were fitted in the model, these estimates are for sons. However the gender interactions are small, showing that, when the main effect of gender has been controlled for, daughters of professionals and managers (or highly educated parents) share much of the effect with sons. Therefore it seems most appropriate to discuss 'children'.

6. It has been argued that credentials are internally stratified, with credentials from some institutions having more prestige, (see Egerton and Halsey, 1993; Brown and Scase, 1994). However, it cannot be argued that this unmeasured variation in credentials affects the conclusions relating to family culture, since the possession of the more prestigious qualifications must then be attributed to family culture.

## **Appendix 1 : Construction of Variables**

### *Occupation Coding*

The coding of respondent's occupation in their current or last job was based on the 1991 Socio-economic Group and 1991 Registrar General's Social Class in order to maintain as much compatibility as possible with the coding of parents' occupations, for which only SEG and RG Class codings were available. Four categories were derived from the SEG classification:

- 1)     Managers and Administrators; The first four SEG categories; employers, managers and administrators in large concerns and employers, managers and administrators in small concerns were coded into the category of 'Managerial/administrative'. These categories were crosstabulated with RG Class in order to exclude very small employers, who are coded in the RG classification under various manual work categories. These respondents were coded into the 'Other' category.
- 2)     Professionals; The 'Professional' category included both self-employed and employee professionals, SEG 3 and SEG 4.
- 3)     Ancillary/supervisors of non-manual workers; The SEG categories 5.1 and 5.2 were collapsed into one category of ancillary and supervisory workers. The SEG 5.1 category contains lower professional and other occupations which are normally categorised as service class occupations. The SEG 5.2 category contains occupations which, at the age of the respondents, (33), may be a stage in a managerial career (Mills,1995). Since the proportion of respondents in this category (1.1%) was small, it was combined with SEG 5.1.
- 4)     Other; All other occupations were collapsed into the 'Other' category. The Armed Forces category and two Farming categories (farm employers and managers, own account farmers) were excluded. Agricultural labourers were included.

Essentially, this classification identifies the white-collar workers who can expect promotions throughout a graduated career progression and for whom qualifications are likely to be important. It does not map exactly onto the 'service class' as identified by Goldthorpe (1987), since the employment status of respondents is not identified completely in the 1981 classifications, and not at all in the 1970 classifications used to code parents' occupation.

### *Parental Occupations*

Parental occupations were coded in a similar way, using the 1970 SEG and RG Class. However, the ancillary/supervisory category was coded with 'Other'. Although this SEG group might have been of interest in exploring the effects of mother's occupation, a large percentage of mothers were not in work, so this variable was not included in the analysis. Fathers might have been expected to have reached managerial status by this point in their life-cycle. Where there was no father (father figure) in the family at age 16, paternal occupation was classified as 'other'.

### *Ability Tests*

Tests of numerical and verbal ability had been administered at age 11 and combined into an overall index of ability, with scores ranging from 0 to 80. In order to enter this variable into loglinear analyses, it was recoded into a three-category variable: low scores, 0 to 35; mid-range scores, 36 to 51; and high scores, 52 to 80. The cut-off points were chosen in order to retain approximately equal numbers of cases in each category. However, the loss of cases due to sample attrition was somewhat greater (approximately 4%) for respondents with low scores, thus increasing the proportions in other categories.



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