Growing Up in the 1990s: Tracks and trajectories of the 'Rising 16's'

A longitudinal analysis using the British

Household Panel Survey

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<u>Declaration</u>

       I declare that none of the work contained within this thesis has been submitted for any other degree at any other university. The contents found herein have been composed by the candidate, Susan Murray.

Abstract

Sociologists are generally in agreement that the closing decades of the twentieth century involved striking changes in the landscape against which British young people grew up. Transformations in education and the labour market had the potential to dramatically alter and re-shape patterns of social inequality. This thesis addresses the importance of family effects upon educational attainment, early career prospects and, in turn, the post-16 trajectories of young adults against the contextual changes of this period.

Recently, youth researchers have been keen to argue that we are continuing to progress towards a 'post-modern era', which centres on the 'individualisation' or 'detraditionalisation' arguments of Beck and Giddens; where structural factors, such as gender and social class are diminishing as the defining elements of the pathway a young person will take. In this study, the British Household Panel Survey (BHPS), a contemporary source of longitudinal data from the early 1990s onwards, is used to demonstrate a lack of evidence of detraditionalisation, or the weakening of structural factors in determining the outcomes of young people. To the contrary, the gap between those from advantaged and less advantaged backgrounds remains wide.

Furthermore, this research augments and extends previous studies of educational and early labour market outcomes by providing more comprehensive and integrated statistical analyses of household, family and parental effects, using techniques for longitudinal data analysis which give insight into patterns of social inequality being replicated in current contexts. Evidence using 17 years of longitudinal panel data indicate that, over time, family effects on school attainment and early labour market outcomes remain strong.

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Chapter 1: Youth Social Stratification and Social Mobility

1.1 Framework

The reproduction of social inequality over time is a longstanding issue but remains a highly important and relevant concern in contemporary sociology (Breen 2004;Devine 2004;Glass 1954;Goldthorpe & Jackson 2007;Goldthorpe, Llewellyn, & Payne 1980;Saunders 2010;Sorokin 1927). The availability of comprehensive longitudinal survey data resources, combined with a growing range of analysis techniques suited to exploiting them means this continues to be a thriving and evolving research area (Child Poverty Action Group (CPAG) 1998;Goldthorpe 2005). This thesis focuses upon social inequalities amongst young people growing up in recent years as a device to examine intergenerational inequality and the effects of social stratification (Brooks 2009;White 2007). Analyses are presented of the educational and labour market 'tracks' and 'trajectories' followed in the 'youth phase' by a recent cohort of young people. The following chapter introduces issues around studying social stratification, and youth social research specifically, in order to contextualise the empirical work carried out in this thesis.

Youth research in Britain entered a prosperous time on the cusp of the twenty first century (MacDonald & Marsh 2005), with a wealth of suitable data and academic interest in the topic. Likewise, social mobility research has

also developed in numerous directions (Goldthorpe 2005;Goldthorpe & Jackson 2007). However, there has been limited attention paid to combining these by looking at patterns of contemporary intergenerational mobility amongst the *young adult* population. In the context of this thesis, the *young adult* population are defined as those aged 16 and over (having reached the end of compulsory schooling) and reaching to their mid 20s. Although a contested 'age group', there are many examples of research on 'youth' which operate within similar boundaries (Furlong & Cartmel 2007;Mobley et al. 1986).

Research has been undertaken documenting recent changes in the transition patterns experienced by young adults from the 1980s to the 1990s (e.g. Gayle 2005). Rather than a decline in the number of school leaver jobs available as in the preceding decade, the 1990s were characterised by a much more prosperous economy and expansions in education and training (Gayle 2005). Nonetheless, this shift has lead to arguments of individualisation in terms of the choices made by individuals. Gayle describes the concept of 'detraditionalisation', using Beck and Beck-Gernsheim's definition of the idea that structural factors such as social class, gender and ethnicity cease to be determinants for the individual who is pursuing the imperative of living a life of one's own (Beck & Beck-Gernsheim 2002). This contrasts with many findings within the field of social mobility research that background origins continue to influence an individual's outcomes. Roberts et al (1994), for instance, maintain that while it is clear that young people are reflexive agents

who negotiate their own pathways into adulthood, their agency continues to

be shaped by structural influences (Roberts, Clark, & Wallace 1994).

The influence of social origins has been widely studied using a variety

of sociological methodologies and data resources (Treiman & Ganzeboom

2000). What is intended in this study is to exploit these sociological

approaches to specifically examine the backgrounds of a recent and

nationally representative cohort of young people (the British Household

Panel Survey's 'Rising 16's' born between 1975 and 1991) to garner

information as to whether the effects of one's social origins influence what

early tracks they take and the patterns of their trajectories in terms of socio-

economic outcomes. Here, 'tracks' can be identified as the paths the young

people are actively taking from age 16 onwards. 'Trajectories' are distinctly

defined as the continuation of the path as the individual journeys forward,

through, and beyond, the scope of the longitudinal data available presently.

Behind all social mobility research, there is common concern 'with the

transmission and reproduction of patterns of advantage and disadvantage

over time' (Prandy & Bottero 2000: 266). The patterns and processes are

complex, but analysts have been able to take advantage of progress in data

quality and analytical methods, which have often been initiated by social

mobility research interests themselves (Goldthorpe 2005;Goldthorpe 2000).

Progress here is represented by more and better data; improvements in ways

of conceptualising and analysing mobility rates, patterns and process; the accumulation of empirical knowledge, including knowledge of a growing number of hitherto unsuspected and wide ranging regularities; and the theoretical task of providing explanations of these regularities being taken up in different ways (Goldthorpe 2005;Hout & DiPrete 2006).

Detailing developments central to the study of stratification and life chances, although societies are not collective in outcomes, patterns of convergence can be noted (Breen & Luijkx 2004). In comparative stratification research there has been a concerted modification in the questions at the centre of concern. Treiman and Ganzeboom (2000) charted what they termed as the four generations of comparative stratification research. Research started with an early assumption on the similarity in mobility rates and patterns in industrialised societies (Lipset & Bendix 1967), and moved to questions of how intergenerational transmission of status occurs (Blau & Duncan 1967). The third 'generation' was typified by a return to the analysis of intergenerational occupational mobility tables, now using a barrage of new statistical methods (Erikson & Goldthorpe 1992a). From the CASMIN project, Erikson and Goldthorpe concluded that there was an 'underlying structure of mobility chances' which is similar in all industrialised societies (Erikson & Goldthorpe 1992a). The last, and current, 'generation' is also summed up by a return to past ways; 'to the broad questions of early stratification research…how the stratification outcomes of individuals are affected by their social environment, with improved data;

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improved statistical tools…and improved research designs' (Treiman & Ganzeboom 2000). The comparative nature of this research itself is also a trend; Treiman and Ganzeboom refer to both cross-national *and* over time comparisons. We are, therefore, at an important juncture in the development of research into social mobility and inequality. This study aims to contribute to the temporal dimension in an analysis of the UK and a focus on the young adult population. It is able to take advantage of sophisticated statistical techniques and the opportunities of longitudinal data using the UK's British Household Panel Survey (BHPS). Comparing time rather than country, there are close links to the work of Blossfeld et al's (2005) cross-national study on the affects of globalization on youth transitions in modern society.

Arguably, this study can be located in the 4th generation of stratification research; looking at the broad issues which provoked interest in the past, while using the current opportunities of longitudinal data to create innovative research.

1.2 Social Mobility as a life-course process

'The reason why social mobility has consistently been a core topic in British sociology for nearly half a century is because it offers an important purchase on social class inequalities' (Payne & Roberts 2002: 1)

As illustrated, social mobility has been a sustained area of interest in the social sciences since the work of the discipline's founding fathers (Goldthorpe 2005).

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More specifically, *intergenerational* mobility is commonly seen as class mobility, or,

'a comparison between a social (class) origin and a social (class) destination…Social origin has typically been defined as the class of the head of household when the respondent was at minimum school leaving age, using occupation as the basis for allocation to a social class. The destination has been taken as a current class of the respondent, again based on occupation. In practice, this has meant comparing the class of the father with that of the son.' (Payne & Roberts 2002: 2).

Class is a concept which is intertwined with social mobility, and as seen above, implicit to definitions of intergenerational mobility. Sections 1.3 and 1.4 explore the links this research has to 'class' and 'class analysis' as it was previously used (as a measure of an individual's position in society through different means of occupational stratification), and the more fluid way the measurement of advantage shall be dealt with in this research. The early generations of social mobility research concentrated on comparing just two points in time (origins and destinations) in order to study intergenerational change (Erikson & Goldthorpe 1992a;Glass 1954;Goldthorpe, Llewellyn, & Payne 1980). However, intergenerational mobility might not be 'captured by a snapshot' picture at a point in time (Brannen & Nilsen 2002). It may be better understood as about process, such as by studying an individual's 'tracks' over time. Accordingly, looking at an individual's destination or last outcome may not adequately reflect the

journey the person has been on, and longitudinal data may be better suited to

exploring such processes. In this thesis, the privileging of this perspective

leads to the approach of dealing with the fore-mentioned 'tracks and

trajectories' over origin to destination.

Analysis of intergenerational mobility has also often featured other

simplifying assumptions about the measurement and summary of the

comparison between origins and destinations, such as in the use of single

measures of male occupational positions (Goldthorpe, Llewellyn, & Payne

1980). As well as focusing on longitudinal data, this research will also take

issue with some of the assumptions of previous social mobility studies, and

propose methods and approaches to studying social mobility amongst a

young adult population which may offer a better account of the overall

mobility process.

Steffen Hillmert's (2008) study of social mobility concentrates on the

links between demographic behaviour and social mobility in 20th century

Germany. A number of findings from the author's study have influenced this

thesis. Firstly, patterns of both stability and fluidity of social positions

between generations occur. Hillmert states that in 'modern societies, formal

education has probably become the most important mechanism of status

transmission between the generations as well as a central dimension of

inequality in itself' (2008: 3). Therefore, it can be seen that education is

highly relevant within the debate on transmission of advantage and

disadvantage. He goes on to say that

'differences in behavior may be the results of the exposure to particular

forms of education during the individuals' life time…likelihood of attending

these forms of education tends to be transmitted across generations by

mechanisms like unequally distributed resources and educational decisions

made by the parents' (Hillmert 2008: 4).

It is widely accepted that a young person's family background is

significantly related to their own in terms of educational outcomes, whether

positively or negatively. Looking historically, the author also notes an

equalisation of male and female educational outcomes since the Second

World War, meaning the potential for educational homogamy has risen

(Hillmert 2008). Hillmert finds there is a reasonably high level of historical

intergenerational educational reproduction in West Germany and, therefore,

that education can be used as a reliable indicator of social inequality.

Educational indicators are strongly featured in this research on young people

of England and Wales and indeed they make particularly appropriate

outcomes given the age of the sample being studied.

'Conceptual context' (within which mobility should be studied) is

another area which receives much attention in Hillmert's (2008) review. For

instance, should mobility be defined, observed, and measured in terms of a

hierarchy of occupational prestige or socioeconomic status or, otherwise, of

positions documented within an occupational or class structure (Hillmert 2008). This thesis also discusses and explores a range of possible definitions, theories and measures for locating individuals within an appropriate conceptual context, in this instance for young adults in contemporary Britain.

1.3 Stratification and theory

Bottero states that social stratification is 'concerned with the patterning of inequality and its enduring consequences on the lives of those who experience it' (2005: 3). So, here, we are looking at the extent to which advantage or disadvantage is reproduced or 'endured' within families through the generations. Bottero argues that there is a quality of 'persistence' to 'stratification' that differs from the changeable nature of 'inequality'; it is the intergenerational persistence of stratification position that the present research aims to explore; in terms of the enduring impact over time of background social position on the tracks and trajectories of young people in the relatively recent Rising 16's cohort.

There are various approaches with which to frame our view of stratification. To the relational or social interaction approach, the process of 'differential association' is key. It is written that differential association 'acts as a conservative force on the distribution of opportunities and resources, circulating them within groups rather than across them' (Bottero 2005: 4). So it describes the likelihood of social interaction for individuals or their 'distance' in the social space. Prandy is an influential voice in this approach

through his work with the Cambridge Stratification Group: 'social interaction will occur most frequently between persons who are socially close to one another and relatively infrequently between those that are socially distant' (1999: 204). The focus of the Cambridge Scale (a measure of stratification position formulated by the group) is on the social structures defined by 'interaction patterns' of friendship and marriage (Bottero 2005). This is a potentially suitable measure for this research, since measures which rely upon economic classification may be less appropriate (Bihagen 2008) for an analysis of the social and cultural circumstances of those seen as 'outsiders' (Blossfeld et al. 2005) in the labour market, young adults and women.

An alternative approach which also falls under the umbrella of culturalist or relational approaches is that popularised by Bourdieu. His approach is seen as the most widely known in the relational tradition (Bottero 2005) and it has recently influenced two important studies of related processes in the UK (Bennett et al. 2009) and in cross-national comparisons (Chan 2010). For now, Bourdieu's approach is linked with that of Bottero and Prandy by noting that he examines the similarity some occupational groups have to one another through an analysis of closeness to or distance from a wide variety of items reflecting style of life (Prandy 1999:216) (e.g. newspapers, food, music). Prandy states that although Bourdieu uses items relating to lifestyle rather than relationships, it is clear he links similarities with 'processes of interaction' (e.g. things that bring

people together and keep them together- such as tastes, similarities).

Consequently, Bourdieu's work on cultural interaction can be associated with

that of Prandy and his research group (Bottero et al. 2009), even though

Bourdieu himself did not engage with that tradition.

Contrasting approaches to understanding social stratification are

often termed 'structural'. This term can be explained as defining a set of

classes or status groups using structural criteria, and then looking at patterns

between them (Prandy 1999). The relational and structural approaches differ

in terms of their view of stratification. Structurally, socially distant

individuals can be very different to one another due to objective criteria

linked to economic and employment circumstances; relationally, this is

interpreted as rarely associating with one another (Bottero 2005). This is

relevant for the present research on young people, when economic activity

categorisation may not be appropriate. Those using the structural approach

see the different locations of people to be within an external structure of

stratification. There is also a focus on one aspect of an individual's position,

commonly economic.

Goldthorpe is arguably the most prominent sociologist within the

structural tradition of stratification research, rooted in Weberian theory. The

Goldthorpe scheme is a widely used grouping scheme in social mobility

research, based on a structure of economic positions and will be discussed

fully in Chapter 2.

In this research it is anticipated that a relational rather than a structural approach may be better able to summarise the social processes which influence young adults that are broader than the labour market. Differences between the approaches are slight, yet the applications in this research rely specifically on occupational data rather than measures based on economic outcomes at a stage of early engagement in the labour market for the young adult cohort.

The available measures from each tradition also differ in their different use of scales or categorical classifications. This will be elaborated on in a Chapter 2. The following section continues to contextualise this study by discussing the polarised views around theories of individualisation.

1.4 'The Individualisation Thesis'

There is an argument stemming from the work of Beck and Giddens which centres round the 'individualisation thesis'. The authors believe that there is a common perception that the choices people make have become more individualised over recent decades and people live out biographies of choice (Beck 1992). This contrasts with the, so-called, 'normal' biographies used to frame transitions in earlier decades; normal biographies being characterised by 'predictable', 'linear' trajectories punctuated by the markers of adulthood (such as age of consent, end of compulsory schooling, entry into the labour market, voting age) (Dwyer & Wyn 2001). As these 'markers' become less sequential and, indeed, less taken for granted, it becomes more

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difficult to predict the pathways young people will take as they move into adulthood.

A central pillar of the individualisation thesis is the concept of 'detraditionalisation'. The traditional markers (for example, gender, ethnicity, social class background) are seen as less significant influences and, Beck argues, have made way for the influences of modern institutions such as the labour market and the welfare state (Beck & Beck-Gernsheim 2002). However, the current research disagrees with the proposition that the traditional set of influences are being replaced by those of modern society, and this is sought to be demonstrated empirically.

The other side of the argument follows that there remains persistent inequality; people may be making choices but outcomes are still affected by traditional background factors. MacDonald (2009) states that 'a career may be a middle-class expectation' (173) and that in reality the labour market is far more precarious. In his opinion, the routes young people take are characterised by transience; something this research aims to capture by focusing on 'process' rather than origin to destination.

Delving more deeply into the subtleties of the contrasting sides, I turn firstly to Beck's argument advanced in his work 'Risk Society' (1992) and developed further in his collaboration with Beck-Gernsheim, 'Individualization' (2001). Viewed through the perspective of Atkinson (2007a), Beck's argument follows: 'The changing logic of distribution and more importantly, the individualisation of social processes in reflexive

modernity have killed off the concept of social class and rendered the

analysis of its effects a flawed endeavour' (Atkinson 2007a: 1).

Beck states that the main argument is that class analysis is no longer

relevant; 'risk societies are not class societies' (Beck 1992:36). He advances

that, everyone faces hazards; the rich and powerful are not protected as

inequality affects all. He writes of individualization moving society's divisions

'beyond' class (Beck & Beck-Gernsheim 2002: 30). In his critique, Atkinson

interprets Beck's argument thus; 'old certainties, constraints and

determinations of class have...given way to individual agency, choice and

volition in the constitution of life situations' (Beck & Willms 2004). People

are *forced* to construct their *own* biographies. But this is not a completely free

world where individuals do not face barriers and do exactly what they want.

Beck asserts that, individualisation is accompanied by a tendency towards

the '*institutionalisation* and *standardization'* of lifestyle (Beck 1992).

In reflexively constructing their biographical trajectories and sense of

self, agents have become wholly dependent on the dictates of the labour

market, the education system and the consumption of 'generically designed

housing, furnishings, articles of daily use, as well as opinion, habits, attitudes

and lifestyles launched and adopted through the mass media' (Beck

1992:132). Although he is adamant that the influences of older, more

traditional institutions are weakening, Beck is insistent that newer,

secondary institutions have taken their place with equally as strong bonds to

an individual's life course. The institutions 'convey' the imperative to shape

one's own biography (Leisering & Leibfried 1999); individuals act towards these newly structured factors and they, in turn, act upon them.

To illuminate the discussion as far as possible it is necessary to be specific with the concept of individualisation. Individualisation is a component of the wider process of 'reflexive modernisation'. It is a multi-faceted and far reaching challenge to the domain assumptions of sociology (i.e. groupings such as class are termed 'zombie categories', those defined by some as 'dead' but is still in operation and frequently discussed. Other examples are full employment, gender roles, and the 'traditional' family) (Atkinson 2007a). This is instrumental in the concept's use in the current research. I am exploring the routes taken by a contemporary group of young people after finishing compulsory education at 16 but more specifically, the effects of the 'traditional markers' or 'domain assumptions of sociology' upon these routes. According to the thoughts of Beck (Beck & Beck-Gernsheim 2002), these assumptions of sociology offer less of a frame for individual identities, biographies and life situations in reflexive modernity; now, agents are compelled by the mechanisms of modernisation to make themselves the masters of their own destinies. The alternatives to these 'zombie categories', as offered by Beck, include other measures of structure such as the labour market. This can be illustrated as highly relevant to the Rising 16's cohort: Goldthorpe suggests that qualifications are becoming less valuable in current markets (Goldthorpe & Jackson 2007) which also chimes with Brown and

Hesketh's assertion that the greater competition in the labour market deems a university degree less desirable in terms of reaching a high position once entering employment (Brown & Hesketh 2004). These examples suggest that the secondary institutions such as the labour market may indeed have an influence on the routes of young people in contemporary times, yet, it does not rule out the continued effects of traditional markers such as family background. These will be assessed throughout the analysis. Further discussion of the background context of the Rising 16's youth phase (and possible secondary structural effects as raised by Beck(Beck & Beck-Gernsheim 2002)), such as the collapse of youth labour market in the 1980s, the decline of manufacturing industry together with the expansion of further/higher education yet current lack of places and funding cuts at universities, are in Chapter 2.

Individualization '[i]s not simply a subjective phenomenon concerning self-identities and attitudes alone, but a structural phenomenon transfiguring objective life situations and biographies' (Atkinson 2007a: 353). This appears to be the key misunderstanding of the concept itself. Rather than falling on the 'agency' side of the so-called structure and agency dualism as often argued (e.g. Evans 2007), Beck recognizes the influence of structural factors and clarifies his interpretation of this at frequent points; his position proposes that although it may seem traditional ways of life and their influences on individual choice are breaking down, there are new ways in

which inequality 'displays a surprising *stability*' (Beck & Beck-Gernsheim 2002: 30).

Beck attempts to illustrate the idea of a capitalist society which remains at the hands of inequality, but one which is no longer divided along traditional lines such as class.

A further instrumental factor in piecing together the concept is turning attention to the 'death of class'. Beck believes in a society where capitalism exists without classes. There are many critics of the 'death of class' thesis (e.g. Crompton 1998), but Beck proffers that the distribution of inequality in a social structure of individualisation is distributed between phases in the average work life rather than differentially distributed between groups (Beck & Willms 2004: 102). This perspective seems to ignore the evidence that people from certain backgrounds are more likely to be disadvantaged than others, *con*sistently and *per*sistently (Hills, Sefton, & Stewart 2009b). Also, this thesis demonstrates that this inequality is passed on through more than one generation; showing empirically that, some individuals *are* less likely to reach positions of advantage.

Using Beck's terminology, it can be asked whether class *is* a 'zombie category'; that is to say, no longer active and useful for interpreting effects and offering explanation but being unhelpfully perpetuated by sociologists and class analysts without legitimacy, along with other changing categories of modernity such as family and full employment. This idea is heavily criticised by class analysts for being non-empirical (including Giddens 1991).

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The commentary so far has largely followed Atkinson's article (2007a) critiquing Beck's individualization thesis. In response to Atkinson, Beck argued that the individualization theory is 'the investigation of the paradigm shift in social inequality' (Beck 2007: 680); he asserts that the end of social classes is not the end of social inequality. Together with this, he describes individualization as a 'process' being journeyed through rather than a final state or destination. This chimes with the present research which aims to avoid an 'origin-to-destination' approach. Further, individualisation is often misunderstood as a process which derives from a conscious choice or preference on the part of the individual. Essentially, Beck argues that individualization is 'imposed' on the individual by modern institutions (Beck 2007), echoing rather than refuting claims of persistent social inequality.

The dialogue continues and Atkinson counters that he is unconvinced with Beck's riposte; there is no longer a 'collective identity of class' (Atkinson 2007b). He believes Beck is contradictory in his statements that his updated work, 'Cosmopolitan Vision' (Beck 2006) answers the questions left by 'Risk Society'(Beck 1992) and 'Individualization'(Beck & Beck-Gernsheim 2002).

Atkinson argues against Beck that upward mobility means an end to 'class'; he states that although the expansion of higher education and continued 'widening participation' scheme in the UK, whilst still only recruiting a minority of poorer youth (whatever measure of class one wants to use), have provided fertile areas for investigating the persistent and pernicious operations of class' (Atkinson 2007b) – e.g. setting apart types of

course, types of institution, tendency and capability to gain good grades' and, subsequently, 'the relative value of the educational credential gained in the local, national... and....global labour market' (Atkinson 2007b: 710-11). This chimes with the comments of Goldthorpe, mentioned previously, on the decline in the value of qualifications in modern labour markets (Goldthorpe & Jackson 2007).

The point being made is that, heterogeneity within classes does not make the entire concept irrelevant. For instance, 'working class' is no longer solely a white domain, as it once was, but similarly, it has not been for some time; yet, Beck now focuses on cosmopolitan forms of 'post class' inequality in his contemporary work.

Giddens is frequently likened to Beck through his ideas on Modernity and Self-Identity (1991) but Atkinson (2007a) highlights that despite these links to individualisation, Giddens never actually uses the term itself. His core theory is the 'reflexive project of the self'; used as evidence which supports a 'death of class'. He is compared to Beck as also placing 'reflexivity at the heart of recent social changes, though they use the term in different ways' (Atkinson 2007a: 541). 'Both claim that as a result of those social changes actors can no longer rely on the traditions of old to supply their biographies but must now reflexively construct them themselves- akin to the process Beck dubs 'individualization' (Beck 1992; Beck and Beck-Gernsheim 2002)'.

In essence, this research is looking to further investigate the claims of individualization and the detraditionalisation of society with contemporary

data and assess the extent of the arguments outlined above. As the paths or

trajectories young people take are a 'process' and are individualised in terms

of being specific to each person, a technique is demanded which takes this

into account and also one which makes the most of this wealth of longitudinal

data available in the BHPS.

1.5 Analysis of social mobility for young adults

The basis of this study rests with the educational and labour market

outcomes of young adults in terms of the intergenerational reproduction of

stratification inequalities. This requires examining the effects of various

elements of family background on the process of a young person's outcomes.

Accordingly, the research focuses on the tracks and trajectories of these

young adults; the methodological approaches are elaborated in the later

section on finding an outcome measure.

As has been indicated, this study aims to move beyond the traditional

boundaries and look more widely, making use of the opportunities of data on

household sharers; for example, studies of adult outcomes expanding the

father/child occupational class model, perhaps utilising data on mothers also,

have found significance over and above the jobs of the male parent (e.g.

Kalmijn 1994;Lampard 2007). In studies of youths, focus has often been on

particular outcomes in the context of specialist data resources, for instance,

studies into exam attainment (Croxford, Iannelli, & Shapira 2007). At this

time, advantage could be taken of generalist survey data with its wider range of contexts to life circumstances in assessing outcomes of young adults.

Such interests amount to good reasons for using the BHPS (British Household Panel Survey, University of Essex 2010). The BHPS is reasonably well funded by the government and widely available through the UK Data Archive. Chapter 3 details the survey and gives reasons why it is appropriate for this study into contemporary youth transitions in Britain.

Amongst its many attractive features, a further quality of the BHPS is that it allows linkage of responses from questionnaires the respondents completed as children of 11 and over before entering the full survey at 16. Again, this renders it highly opportune as a data set for use in the present research. Particularly important for this research, the British Youth Panel (BYP) was added into the BHPS in 1994 (therefore included in Waves 4 and onwards). This addition of a rotating panel of 11-15 year olds continues to be less widely exploited by researchers, but is an invaluable inclusion for social research on young people and their origins and outcomes (Gayle 2005).

'[It] locates the young person's experience within the household and tracks the young person into adult's life...the BYP also plugs an important gap in the existing portfolio of British youth data' (Gayle 2005: 34).

In this project, focus is centred on those young adults who are moving up from the Youth Panel, onto the adult Panel. As specified, they are often referred to as the Rising 16's (Gayle 2005), and will be during this study. Concentrating on this cohort enables a valuable analysis of current

circumstances of young adults and a unique view of social origins and

intergenerational data (stretching beyond parents) with a view of potential

destinations.

The available datasets provide details on pre-age 16 information. For

example, the young person's intentions in adult life, their aspirations, and

information about the relationships with friends and family members are

amongst data collected in the BYP. Beneficially, this survey catalogues the

changing household members which, in turn, allow a unique extension of the

father-child association to include other potentially significant relationships

such as grandparents, siblings and stepparents. Fundamentally, if someone

has ever shared a house with the young person or their parents, during the

lifetime of the BHPS, there is potential to have extended data on them. This

feature is vastly significant here as it allows a widening of the conventionally

narrow focus on single generational parent-child links (commonly assumed

to be the paternal link). The weaknesses of this shall be commented upon

further (see section 1.7).

1.6 Longitudinal data

Aside from the unique importance of the survey's youth panel, the

most convincing attribute of the BHPS is simply its longitudinal design. There

are several reasons why cross-sectional data are lacking in comparison to

longitudinal. A key issue centres around the potential to improve 'control' of

the variables that are not included in analysis (Dale & Davies 1994). The

authors summarise that:

'longitudinal data allow models to be constructed that are better able to take into account some of the complexities of the way in which people conduct their lives and of the influences on that process' (1994: 4)

This increases the potential for rich data analysis but also requires the use of specialised analysis techniques. The BHPS contains very high quality longitudinal data. Amongst the benefits of longitudinal data, in general and specifically in terms of this project, the reliability of the records over time is more consistent and it allows the study of transitions, sequences and durations. Using the annual BHPS, there are presently 18 time points, or waves, available (17 waves are used in this research). There are vast quantities of data collected on sample members, both cross sectional and temporal; and, in the case of the BHPS, data on their households.

Cross sectional data often include some of the variables deemed most useful in studying social mobility, for instance, educational qualifications, parental class and career trajectory data collected from this is necessarily obtained via retrospective questioning, and studies suggest this cannot provide reliable information on life histories due to inaccuracies of recall (Dex 1991). So, prospective studies such as birth cohort studies and the BHPS are seen as preferable for analyzing 'developmental processes'- 'Longitudinal research is the lifeblood of the study of individual development' (Magnusson & Bergman 1990: 1). The BHPS gives accurate life histories and, therefore, allows insight into the underlying patterns of 'socio-economic' 'tracks' and 'trajectories' experienced by youths and their external correlates. This is as

opposed to focusing simply on the *destinations* of the Rising 16's, which can be achieved through a cross-sectional study.

Attrition in the survey arises, but rates are often considered relatively low, especially when compared to the YCS (see Chapter 4). In general, much effort and concern is afforded to the validity and reliability of the BHPS. Interviewer briefing and training is used to maximise responses and minimise attrition, a dedicated staff are committed to data processing and cleaning prior to release and data support afterwards; and the documentation is comprehensive, with changes and updates dealt with quickly (Rose, Buck, & Corti 1991).

1.7 Parents' effects

As previously discussed, this research aims to extend the conventionally narrow reliance on single generational (usually paternal) parent-child links. In order to unravel the issues when discussing the planned innovatory aspects of this PhD study, it is crucial to mention the often neglected area of female social mobility.

'The sociology of social mobility has had practically no female dimension; it has been the study of men, mirroring the broader field of social stratification in this respect' (Hayes & Miller 1993: 653).

Dale et al summarised that women's absence has previously been 'assumed rather than explained and excused' (Dale, Gilbert, & Arber 1985: 385). Despite this no longer being the case in much contemporary social research where the availability of data on women has improved and

encouraged more equal analyses, examples of the ways in which women have been neglected in traditional stratification research are manifold. Glass's study did not analyse data collected on females; Blau and Duncan (1967) failed to include women altogether, as did the Oxford Mobility Study; and other studies, such as the Scottish Mobility Study, only used wives as their female sample (Hayes & Miller 1993) rendering it non-random and exclusionary. As Heath (1981) states, women were conspicuous in their absence in social mobility research.

For decades now, critics have worked to point out the inconsistency and discrimination of this omission (Acker 1973;Delphy 1991;Dex 1985), yet there is no agreement on ways to improve or ameliorate the treatment of females as a category. The reason for this is mainly related to the role of occupational gender segregation on studying stratification; studies focus on men- not for any assumption that female roles are not important, but because of the practical difficulties of using occupation based measures when in most countries women are highly unevenly distributed between occupational locations (Blackburn, Browne, & Brooks 2002;Blackburn & Jarman 1997;Blackburn, Racko, & Jarman 2009). It follows then, that consistent measurement is challenging.

There are proponents for maintaining the status quo. Goldthorpe and Payne (1986) believed the sexist argument 'unnecessary'. Although Goldthorpe acknowledged the inclusion of the wife's characteristics on the judgement of her own class, he does not value the inclusion of the wife's

characteristics in the family unit-based class. He believes that most

cohabiting women have a weak position in the labour market and have

continuing dependence on a spouse and therefore it should be the husband's

position that determined a family's overall class position (Goldthorpe &

Payne 1986). Defenders of this traditional view vindicate these theoretical

grounds by arguing for the empirical adequacy of the many studies using this

'conventional' approach.

Nonetheless, justification given in early studies to omit women

entirely is largely no longer relevant: the majority of women now work

outside the home and more data are now available via responses to questions

on labour market activity within surveys such as the BHPS. This partly

addresses the problems previously impeding better information on female

mobility. Yet, the methodological issues around use of the classification

approach for both men and women still exist. Also, further research shows

important links between women's own jobs and the jobs of significant

women to their lives (especially same-sex intergenerational links, see Marini

1980), and also a different link for mother's than father's to offspring

(Kalmijn 1994;Lampard 2007).

Several other researchers have included mother's education in

regression models of educational and occupational outcomes, finding positive

effects. Mothers spend more time with children than fathers so their cultural

resources should be more important and influential, reasons Kalmijn (1994),

whose findings suggest that the economic resources and occupational role

models that mothers provide are now as important as those traditionally provided by fathers' (Kalmijn 1994). So, more recent research is highlighting the importance of the mother's influence.

Hayes and Miller's (1989) study of Irish women and the effects of mother's inclusion in research aimed to compare their results with some of the conclusions from US research (e.g. Rosenfeld 1978). The authors replicate Blau and Duncan's study (1967) with a modified approach; mothers' educational attainment is operationalized as an intervening factor in the relationship between parental socioeconomic status and a woman's own occupational status. This is particularly relevant for those female parents who may not be working fulltime or in the labour force at all during the young person's childhood years. This analysis supports the, hitherto largely US, findings stating that the greatest single and positively significant direct effect on a daughter's occupational status comes from their own education, but also that the effects of mother's occupational status on daughters' educational and occupational outcomes are equal to and independent of that of the father (Hayes & Miller 1989).

So this is notable evidence that the mother's educational and employed mother's occupational attainment, affects schooling as much as does the father's. There is also evidence that the effects of mothers have been increasing over time (Kalmijn 1994). Furthermore, Sorensen (2005) found that children of non-working mothers do better educationally unless the working mother's qualifications are high and their job status is also. These

pieces of research combine to highlight that maternal educational attainment

is applicable to assessing an individual's position and this informs the

present study.

Looking more widely, changes in the family and household structure,

along with advances in the economic role of women have been characteristic

in the Western world for decades now (Pearce & Paxton 2005). Examples of

such changes include high divorce rates, cohabitation, unstable families, lone

parents, non married parents, smaller families, later marriage and child birth,

women's increased earning capacity and labour force participation, and

household contributions being deemed more important (Sorensen 2005).

Therefore, the influence this has had on the role of the family in stratification

must be examined: it continues to be defined as a redistributive unit in the

sense that its members, to a large extent, pool and share resources intra-

generationally as well as across generations; the family exerts control and

influence over its members; and it remains an important source of

maintenance of inequality (Sorensen 2005). In other words, key to this

research, it is crucial for the transmission of advantage and disadvantage

across generations.

Sorensen's previous paper on the question of how to characterise the

family's class or status (1994) was more critical about the family as *the* unit

of stratification at all. It has taken a long time to get the questioning of the

assumptions of the family as the taken for granted unit even taken seriously.

The push came from the wish to include and make women visible in

stratification research (Sorensen 1994). So the family (as an economic and

social unit) has a role in stratification and the changing role for women

within the family should, consequently, influence this. Conventional ways of

studying social mobility can be argued untenable since these changes,

inciting feminist (and wider) criticism on the lack of inclusion of women in

the family unit of analysis. Also important is that 'the choice of unit of

analysis in stratification research and class analysis reflects the substantive

concern of one's research' (Sorensen 1994: 31). For example, it is desirable to

consider and address these issues at an early point in order to aide a

transparent research process.

Sorensen's research shows that the analyses of intergenerational

mobility tables suggest the association between social origin and destination

is weaker for all alternative family structures(see also Beller 2009). This

suggests that as fewer children grow up in two-parent families, the

intergenerational mobility pattern would move in the direction of more

openness. This raises an interesting contemporary hypothesis about the

nature of trends in social mobility over time. The issue of non-intact or non-

traditional family types and their effects on the outcomes of young people is

tackled in detail in Chapter 6.

Turning back to the discussion on the unit of classification itself,

amongst the reasons given for excluding the question of inequalities between

men and women from the scope of stratification studies is the argument that the family, not the individual, is the proper unit of the stratification system (Parkin 1971: 14). Some feminist writers agree, 'the salience of the family in the class system is not in question. Its importance in the transmission of social advantage to the next generation through the inheritance of property and preparation for occupational position is indisputable. It does not follow, however, that the family must be taken as the exclusive unit of analysis...it is not 'families' that are 'engaged as units in the occupational division of labour' (Garnsey 1978: 226). So perhaps a compromise can be made that recognises the relevance of the 'family unit' but which does not give superiority to certain members.

Much to the chagrin of feminist researchers, the head of the household *is* conventionally the male 'breadwinner'. The Office for National Statistics definition is not gendered yet states the 'HOH is the principal owner or renter of the property, and, where there is more than one, the eldest taking precedence' (Pahl & Pevalin 2005). Dale, Gilbert and Arber (1985) relate a definition used by Goldthorpe, the 'head' person is the individual who has the 'fullest commitment to participation in the labour market' (Dale, Gilbert, & Arber 1985: 384). In both cases, the likelihood is that these define the oldest male in the family. Therefore, some believe the family should not be used as the unit of classification, that it 'obscures the divisions that exist between men and women in the private as well as public sphere' (Abbott 1987: 93). That is to say, inequality between the sexes stretches beyond occupational

segregation to power imbalance within the household. This present research echoes Dale who 'calls for an approach which locates the individual within the household context...recognizes that there may be neither consensus nor equality between household members, and that individuals within the same household may differ markedly in the level of resources at their disposal' (Dale 1990: 139). So, preserving the family as the unit of stratification can actually be beneficial in portraying the influential but different relationships working within the unit. This seems particularly cogent when using a panel dataset based on households.

Regarding the offspring themselves, sisters have been shown to attain less occupationally than brothers (Hayes & Miller 1993), warranting further examination using the Rising 16's and possible sibling pairings. For an earlier generation, the Scottish mobility study also illustrates that brothers and sisters experience different mobility chances (Payne & Abbott 1990). This is particularly relevant when conceptualising the effect of gender on outcome variables.

Methodologically, it can be seen as controversial to generalise across genders as men and women have different occupational plans which are often shaped by child-rearing; women may plan to take certain amount of time out at set points and build this into expectations and goals (Rindfuss, Cooksey, & Sutterlin 1999). So, the aspirations, and likewise parental expectations, of the young adults must be treated with caution in regards to gender. Similarly, Rindfuss et al (1999) make the point that outcomes must

also be treated with care, considering constraints such as discrimination in education and occupation. These issues are difficult to treat in analysis but awareness allows more caution to be taken.

Of the above ideas, the BHPS is well placed as a data source to examine them. It is felt that inclusion of mother's background is essential; in relation to both sons' and daughters' outcomes, as well as sibling relationships in terms of tracks and trajectories already or to be taken are useful valid research arguments. The explanatory power of parental education and stratification position will be tested throughout analysis, with special attention given to sibling linkage in Chapter 6.

1.8 The Role of Attitudes

Little is known about the link between aspiration/expectation and actual outcomes. Some authors moot that modern parents share the high ambitions of their offspring (Schneider & Stevenson 1999), yet much research into aspirations is comparative by groups stratified by race, ethnicity or gender (Beutel & Anderson 2008;Morgan 1996;Shu & Marini 2008). Furthermore, the majority of studies around this area have been done on American data (e.g. Hanson 1994;McClelland 1990;Schneider & Stevenson 1999). It is, therefore, proposed that this research will look at aspiration as a key independent variable. As mentioned, the BHPS has data on the aspirations of the young people as collected in the youth panel. Also, there are questions designed to ask parents of their educational expectations

for their offspring. All of these responses could substantially be linked to the actual experiences of the Rising 16's. Croll (2008) has conducted such an analysis concerning occupational aspirations in the BHPS; this study intends to expand upon that research by looking across a range of relevant aspiration and outcomes.

In qualitative analysis, Devine (2004) and White (2007) describe clear routes of influence from parental (and wider) values and expectations, to youth aspirations and outcomes, making a case that youth expectations have strong social determinants. On the other hand, Beutel and Anderson present a study using longitudinal data to look at race/ethnicity and educational expectations in South Africa (2008), which found that young people, regardless of race/ethnicity, have high educational expectations (see also Schneider & Stevenson 1999). They also refer to research (Cheng & Starks 2002) which shows that youth from non-white groups tend to have the highest educational expectations even when their socioeconomic background and academic performance are poorer than those of whites, presenting a low status- high expectation paradox. Suggestions for further research into attitudes and expectations also point towards looking beyond the parent-child relationship to extended relations, as proposed in this research.

A theorist from the cultural approach that is particularly prevalent in contemporary education literature is that of Bourdieu. Mills (2008: 79) states, 'Bourdieu has made significant contributions to understanding the

role that schools and school systems play in reproducing social and cultural

inequalities through the hidden linkages between scholastic aptitude and

cultural heritage.' Bourdieu describes a world that is more reproductive than

transformative, where things happen to people rather than people being able

to intervene. This is extremely pertinent when discussing the transmission of

advantage generationally, as in this research.

Bourdieu's much rehearsed concept of 'habitus' becomes appropriate

here. It is seen to function below the level of calculation and consciousness;

constituted by dispositions or tendencies which are acquired gradually such

as the dispositions of young people as described above. Mills (2008)

describes it as an 'amalgam of past and present; both generative and

structuring; it shapes but does not determine our life choices' (80).

This remains consistent with the evidence young people can make

their own decisions but are restricted by structure. For example, 'the most

privileged students…owe the habits, behaviour and attitudes which help

them directly in pedagogic tasks to their social origins' (Bourdieu and

Passeron (1964) cited in Grenfell & James 1998: 21). This dynamic concept is

relevant in my study when examining the processes behind the transmission

of inequality. It can be asked whether this pattern is still present with the

continuing expansion of education or what changes might be present in this

cohort. To Bourdieu, through the filtering down of dominant cultures and

education, young people can feel relatively powerless in their choices while

others in the same context feel empowerment depending on their origins and

resources of capital. This research aims to find out more about the processes behind this using the available data in the BHPS.

Jenkins (2003) also writes on this subject in his work on Bourdieu's theories. Symbolic violence is seen as the theory on the 'processes whereby, in all societies, order and social restraint are produced by indirect, cultural mechanisms rather than by direct, coercive social control' (2003: 104). Jenkins draws on Weber's work on domination here. Imposition of culture upon groups or classes occurs in such a way that they are experienced as legitimate; therefore covering the 'power relations which permit that imposition to be successful'(Jenkins 2003: 104). This stresses the potentially inescapable influences of one's origins.

Bourdieu proposed the notion of cultural capital: describing familiarity with bourgeois culture; for instance, teachers can act as agents in order to broaden the types of cultural capital available in the classroom which, in turn, is gainful for the pupils as their awareness is heightened. Hanson (1994) looks at 'lost talent' and uses Bourdieu's framework to discuss the lack of transmission between young ambition and actual outcomes. This is echoed by McClelland (1990), who describes the change of aspirations through time using the concept of 'cumulative disadvantage'. The highly ambitious are more likely to come from more privileged backgrounds and, doubly, those who are less likely to have high ambitions are more likely to have them defeated by processes of cumulation, that is to say, discouragement or disappointment at various time points. McClelland also

follows a Bourdiesian framework which integrates culture and structure and makes the point that there are many influences on individuals along the way rather than a single role model (Jacobs, Karen, & McClelland 1991). A cogent point is that children have other sites in which to acquire dominant cultural capital. This is relevant here because alongside potential expectations and influence, the aim is to go further and look at more extended family relationships.

'Aspirations are not fixed but evolve as they are buffeted by the experiences of young individuals in educational and employment settings' *(Jacobs, Karen, & McClelland 1991 :611).*

So, many things can influence one's attitudes and they could change over time, however, there is also cause to believe that aspirations are affected by knowledge from a very young age (Jacobs, Karen, & McClelland 1991); formative experiences can remain influential.

McClelland's research into cumulative disadvantage is illustrative empirically with regards to male and female changes in aspiration with age (McClelland 1990). Rosen and Aneshensel agree (1978); aspirations become more in line with gender stereotypes as young people grow older and closer to their destination. Their research showed attainments of same-sex parents shown to have more effect than those of the opposite sex (Rosen & Aneshensel 1978). This study asks whether these patterns are replicated with the Rising 16's data.

A well publicised study suggested that children who are ambitious go on to enjoy greater career success than those with low aspirations (Ward 2007). This has been found by research conducted by the Centre for Longitudinal Studies using the National Child Development Study 1958 birth cohort. The research used unpublished essays in which almost 14,000 youngsters aged 11 predicted their own future, and compared them with their real occupations aged 42. The study showed that, net of class and ability, children did better if they set themselves high ambitions (Ward 2007).

Also recently publicised is the alleged failure of a multi-million pound drive to encourage students from the poorest backgrounds to go to university (Curtis 2008). The aim was to narrow the gap between the numbers of poorest and richest teenagers *wanting* to get a degree. More children 'say they want to go to university' than ever before but there is still a 23 percentage point gap between the wealthiest and poorest young people. This is termed the 'poverty of aspiration'. Nonetheless, there has been an overall increase in number aspiring to university 53% in 2000 to 62% in 2008 (Survey of 6000 7-16 year olds by British Market Research Bureau).

Reynolds et al (2006) also found that aspirations were becoming higher but not always with good reason. More people are attending college and university than before therefore it is understandable that they are becoming more ambitious. However, analysis over the past 25 years suggests

that those past compulsory schooling are more unrealistic in their ambitions

than previously (Reynolds et al. 2006). They also found a growing gap

between expected and actual outcomes, deeming the power of expectations

to predict outcomes has also declined over time. Reynolds et al stated that

the implications for this are that individuals will waste time and resources if

they have unrealistic ambitions and also leave labour markets with a

shortage of skilled manual workers. This research aims to assess whether

this is the case with young adult respondents sampled in the BHPS (see

Chapters 4 and 5).

The idea of 'aligned ambition' brought in by Schneider and Stevenson

(1999) and mentioned by Kim and Schneider (2005) looks at matching

ambition with realization of ambitions (i.e. an individual's outcomes). Also

looked at is the actions of parents to 'align ambition'; helping their children

realise their objectives. When parents connect their children to resources

that further their ambitions, the social relationship between parents and

children is said to become 'social capital in action' (Kim & Schneider 2005:

1184).

Many of the papers on aspiration and expectation make reference to

the popular ideology of the 'American Dream'. The ideology experienced by

the British sample in this study will be contextually different, ranging from

those turning 16 in the early 90's Conservative Government, to the latter end

of the cohort turning 16 under New Labour. The ideology of New Labour,

who came to power in 1997, is said to be equality of opportunity, as opposed

to equality of condition (Goldthorpe & Jackson 2007). This is popularly understood to be an aspiration for an open, fluid society where those who work hard go on to reap the benefits of socio-economic advantage, irrespective of social origins. Sociological research, however, continues to suggest a less fluid society where origins continue to play a part.

1.9 Conclusions

This research examines the position of young adults in the UK. It seeks to link ideas surrounding the transfer of advantage from parents to children through an analysis matching aspirations from the youth survey with actual levels of educational attainment and subsequent labour market outcomes. The outcomes reviewed are the educational and labour market circumstances of the young adult population of the Rising 16's. Specifically, intergenerational reproduction of stratification inequalities shall be looked at, focusing on the 'tracks and trajectories' of these young adults. The next chapter looks more closely at the dependent variables and relates an understanding of the stratification position of young adults.

Chapter 2: Growing Up in the 1990s

2.1 Understanding the Stratification Position of Young Adults

This chapter turns attention to the sample of young people in the research. It looks specifically at the challenges of using this sub-sample in relation to understanding positions in the structure of social stratification and theorisations of the experience of contemporary young adults in the stratification system.

2.1.1 The Rising 16's birth cohort

Throughout the text the sample will be referred to as the Rising 16's, and refers to a group of respondents from the British Household Panel Survey who are part of the 1975-1991 birth cohort and have been interviewed as adults in the BHPS on more or more occasions between the period 1991-2007 (waves 1-17 of the BHPS). These young people are from the 'Essex Original Household Sample' in the BHPS (i.e., the original nationally representative sample of households conducted in 1991), and are known as the 'Rising 16's' because they were first enumerated as children resident within original sample members' households, but during the course of the BHPS they have aged into the adult survey (rather than entering the sample by joining a household, or being included via one of the later boost samples) (Taylor et al. 2009).

The BHPS survey resource itself, along with its structure will be discussed in detail in the next chapter. Across the BHPS, 8087 individual records of adult interviews from members of this cohort are retrievable, covering an average of almost 8 time points of interview (with 177 different individuals present across all of these time points). Beneficially, the Rising 16's will be able to be followed for many years to come (17 waves are currently available), more so since the BHPS has been subsumed into the much larger UK Household Longitudinal Study. This presents opportunities for future comparison to take a later look at the same cohort.

Ordinarily, individuals born after 1979 will have also taken part in at least one wave of the British Youth Panel (BYP), a survey conducted within the BHPS with household members between the ages of 11-15, though only in the period 1994-2007. Therefore at this point these youths may also be referred to as the Rising 11's (Gayle 2005).

The Rising 16 sample from the BHPS thus shares some of the characteristics of an annual cohort study. This is apposite in terms of comparison between the BHPS and the nationally representative Youth Cohort Study (YCS) study of school leavers from England and Wales, which is presented in Chapter 4 (see also Gayle, Lambert, & Murray 2009). On the other hand, we should be mindful throughout the analysis that the findings

presented refer to those born between 1975-1991 and cannot necessarily be applied to older or younger generations.

Ryder states that 'transformations of the social world modify people of different ages in different ways' (1965: 861). Correspondingly, the BHPS Rising 16's are conceived of as a unique group of individuals who have been interviewed at multiple points during their youth phase over a 17 year period. While the BHPS is not a cohort survey, we argue that it is appropriate to study the Rising 16's as representative of a recent age cohort entering adulthood in the context of a number of shared but distinctive circumstances. The following section will detail the social, economic and political landscape against which the Rising 16's cohort experience their youth phase transitions.

2.2 The context of the cohort

In the decades following the Second World War the vast majority of young people in the UK left education at the first opportunity. In more recent decades this situation has reversed. Official data illustrate that an increasing proportion of young people have remained in education longer (Department of Employment 1993; FEFC 2000; Social Trends 2006). Whereas, historically, only a minority of young people remained in education for long periods before entering the labour market, by the late 1980s, only a minority made an early transition straight from school-to-work (Banks *et al.* 1992). This general shift has been commented upon by a number of authors (especially Paterson and Raffe 1995; Biggart and Furlong 1996; Cregan 2001).

Sociologists of youth are generally in agreement that the background against which young people grew up in the closing decades of the twentieth century was transformed, and is now radically different from earlier decades (MacDonald *et al.*1993). It is now widely agreed that the 'normal' school-to-work transition that characterised the 'traditional' rite of passage from youth to adult status has been disrupted (Irwin 1995). This has been labelled the 'changing times consensus' (Gayle, Lambert, & Murray 2009). Sociologists have deployed a series of adjectives such as 'long', 'broken', 'fractured' and 'uneasy', in order to describe the changing pattern of youth transitions (Craine 1997). Within the 'changing times consensus', authors agree that the transformation was driven by a series of interrelated social and economic changes.

The most dramatic of the economic changes was the virtual collapse of the youth labour market in the early 1980s. This key transformation received a great deal of sociological attention (see Ashton *et al.* 1982; Atkinson and Rees 1982; Raffe 1984, 1988; Roberts 1984, 1997; Brown and Ashton 1987; Furlong 1987; Bynner 1996; Maguire and Maguire 1997). The growing levels of youth unemployment in the 1970s and 1980s are well documented (Casson 1979; Jackson 1985; Gallie and Marsh 1994). Concurrently, there was a sharp decline in the number of apprenticeships during this period (Maguire and Maguire 1997). The overall economic environment was one in which there was a reduction in the number of jobs that were suitable for

young people and offered long term career prospects, especially minimum

aged school leavers.

This pattern of economic restructuring led to a number of policy

responses, most notably the introduction of 'youth training' provisions (Raffe

1982, 1983; Chapman and Tooze 1987; Stoney and Lines 1987; Roberts

1984; Deakin 1996; Finn 1987; Hollands 1990). The introduction of youth

training was coupled with a number of reforms to the welfare system that

changed (and generally reduced) young people's entitlement to state benefits

(Irwin 1995; Dean 1997).

Conterminously, the provision of further and higher education for

young people expanded. The number of learners in further education

increased from 1.7 to 5.4 million between 1980 and 2000 (White 2007;

Smithers and Robinson 2000; Hyland and Merrill 2003). The more recent

expansion of higher education gathered momentum in the 1990s (Daniel

1993; Dearing 1997; Archer *et al.* 2003). Over the course of the 1990's, the

number of young people undertaking undergraduate and postgraduate

education nearly doubled with a rise in the Age Participation Index from 19%

to 35% (White 2007).

The decline of traditional labour market opportunities for young

adults largely took place in the 1980s. By contrast, the 1990s was a decade of

employment growth in the UK (DfEE 2000), as well as one of expanding

educational opportunities. Young people in the 1990s may have benefited

from a more buoyant economy, and accordingly experienced more

opportunities and choices than those of their counterparts a decade before.

The *Education Reform Act 1988* is often regarded as the most

important single piece of post-war education legislation. This legislation led

to rapid changes in the curriculum, organisation, management and financing

of schools (Spence 1993). An important change for pupils was the

introduction of the General Certificate of Secondary Education (GCSE)

(Department of Education 1985; Mobley *et al.* 1986; North 1987). This was a

radical change. A new grading scheme was established and nearly all school

pupils were entered for this new common set of examinations. There were

also changes in the nature and format of examinations and assessment by

coursework was introduced (Ashford, Gray and Tranmer 1993).

In addition to the changes in academic education, a new

apprenticeship initiative called 'Modern Apprenticeships' was established in

order to enhance the technical and vocational skills of young workers

(Saunders *et al.* 1997; Ainley and Rainbird 1999). Young people were now

eligible for new, nationally recognised, vocational qualifications (Smithers

1999). These opportunities had the potential to influence the decisions that

young people made as they approached the end of compulsory education,

although they were not exclusively targeted at minimum age school leavers.

In 1997 New Labour came to power with a distinctive education

policy agenda, driven by a wider interest in tackling social exclusion.

Williamson (2005) comments that it is virtually impossible to present a full

catalogue of the measures that were established by the administration to

address the challenge of social exclusion. Hodgson and Spours (1999) argue

that New Labour's education and training policies were largely dominated by

responses to the Conservative legacy, and highlight a difference of approach

towards compulsory and post-compulsory education. New Labour prioritised

changes in compulsory education whereas changes in post-compulsory

education were positioned lower in the policy hierarchy, due to the more

complex interrelationship between post-compulsory education, training and

the labour market. Nevertheless, Smithers (2001) notes that what is

remarkable about all the apparent changes brought in by New Labour is how

little they differed at root from the educational policies of the preceding

Conservative administration.

Under the New Labour administration minimum age school leavers

continued to be excluded from the unemployment benefits available to older

workers (CPAG 1998; Mizen 2004). However, a notable example of an early

New Labour policy initiative in the area of training was the New Deal for

Young People (NDYP). Introduced in 1998, the NDYP aimed to provide

opportunities to work, gain new skills, and get work experience for 18-24

year olds (Wilkinson 2003). Participation was mandatory for young people

claiming unemployment benefits (i.e. Jobseekers Allowance) continuously for

six months (IER 1999). The NDYP resonated within the wider 'welfare to

work' agenda (Riley and Young 2001; Brewer *et al.* 2002; Fraser 2004).

In the same period New Labour also introduced the minimum wage.

The Low Pay Commission was established as a result of the national

minimum wage legislation in 1998, and from 1st April 1999 workers aged 18-

21 were entitled to a minimum wage at the development rate (i.e. a lower

level than the adult rate). This legislation was introduced explicitly to target

poverty and social exclusion. More recently low pay legislation has been

extended to include workers aged 16 and 17. There is a consensus within the

sociological literature that the decline in the youth labour market and

traditional employment and training opportunities radically altered the

landscape against which British young people grew up. These changes are

important to understanding the youth experience in the 1980s; however it is

conceivable that the experiences of young people a decade later were more

influenced by changes in the educational environment and related

educational and training policies. Similarly, although perhaps to a lesser

extent, young people's experience may be affected by relatively more

buoyant employment conditions. Therefore, more detailed empirical

exploration of growing up in Britain in the 1990s should enable an

exploration of the effects of the newer, non-traditional markers such as the modern labour market, suggested by Beck as replacement structures to the arguably weakened effects of traditional institutions such as class.

When looking at the UK, it is advantageous to compare and contrast this with that of an international perspective. One such text is Blossfeld et al (2005) which details the positions of youth transitions in 14 countries in light of globalization. Here, the British labour market is characterised as one where youth/ low skilled employment can be dominated by temporary contracts and job insecurity. This is supported by the contemporary findings of MacDonald (2009), on 'precarious work'. Bradley (2005) has also compiled a text of cross-national studies which similarly frames the UK experience as unstable. This further highlights and reinforces the representation as in flux.

2.3 Measures of Stratification

Reviewing stratification measures over 30 years ago, Haug (1977) highlighted the problems arising from the myriad of factors they can be based on, the resulting options available, and the over-reliance on the male position. Concomitantly, Breen (1995) stresses the 'temporal dimension of social class': that is, that the 'relative sizes of social classes can change over time which is described as structural change; simultaneously 'the nature of classes themselves can change over time' (whether a certain occupation, such as clerk, is comparable in 1920 to the same occupation in 2000); as so 'the consequences and corollaries of class membership can also shift over time'

(Breen & Rottman 1995 : 98-99). So, the constructed nature of the concepts of stratification and class require careful consideration, and may benefit from a dynamic methodology which takes account of a constantly shifting context.

An extended amount of time and concern in survey research is spent over the measures themselves; the underlying assumptions, the operationalisation and the comparison to alternatives.

2.3.1 Approaches to Classification

The Conventional Approach to social classification was rarely challenged until the 1980s (Marshall, Swift, & Roberts 1997: 43). The authors stress that, in contemporary Britain, women make up half the workforce (unlike in the times of the earlier studies), they take fewer career breaks, are subject to current maternity leave regulations, there are more women living singly or cohabiting, more widows than widowers and women are now more likely to define their 'life chances' by their own education, skills and occupations rather than who they first marry, or with whom they are currently cohabiting. In summary, an updated view of the social classification of women is necessary in lieu of the changing context.

The foundations in the real world on which conventional practice once rested have certainly weakened' (Marshall, Swift, & Roberts 1997: 44).

The Individual Approach offers an alternative in answer to the criticisms of the conventional approach. Here, each person's position is taken without regard to partners or relatives. However, horizontal occupational segregation means the majority of women fit narrowly into popular class Goldthorpe/ONS schemes due to the greater concentration of female occupations, similarly to early studies (Roberts 1984). We might anticipate that many large female occupation groups are heterogeneous, with lifestyles influenced by their husband's income also.

One option is to use different class schemes for women (Roberts 1984), as they do different types of jobs, and, for example, because Goldthorpe's scheme was largely based on analysis of men's occupations (Marshall 1997). This would mean using two entirely different class schemes and dispensing with the view that there is just one national class structure- a strategy which is empirically feasible but may not appeal to the consumers of research (Prandy 1986).

There are therefore two obvious methodological challenges in this research seeking to measure the stratification position of the Rising 16's with occupational data: young people may not yet be established in their long term career; and equal attention to men and women, as well as mothers and fathers, is considered. On the former issue, various summary measures based upon data on current occupations are compared, including an analysis of occupational sequences (see Chapter 7). On the latter, both men and women are considered as a couple via the dominance approach, but also separately

using various background characteristics and measures (see further in

Chapter 6). The compromise reached in this work is to ordinarily use the

'Dominance Approach'. Following Erikson's work, two criteria are used to

operationalise this measure. When multiple jobs are recorded within a

household, full-time work patterns are prioritised over part-time, and, given

hours of work, more advantaged positions are prioritised over less

advantaged. In this way, a 'dominant' occupation is identified and is used to

characterise all household members (Erikson 1984). The dominance

approach is a reasonably widely used strategy for summarising multiple-

adult households, though it does not fully address the problem of comparing

male and female occupational situations (such as when studying single adult

households).

2.3.2 Schemes

Sociologists have generally preferred to measure social stratification

in terms of occupation-based measures rather than 'income', as income is

seen as an unstable dimension of social position (Raftery 2001;Rose &

Pevalin 2003; Rafferty 2007;Rose & Pevalin 2003) . To classify occupations

in the BHPS, individuals are usually allocated one of the 370 SOCs ('Standard

Occupational Classification 1990 units' see ONS, 1990) and these are, in turn,

sorted into schemes rather than separate occupations. Data on the jobs of

more recent BHPS respondents are also coded to SOC 2000 (ONS, 2000) (for

most members of the Northern Irish boost sample, occupational data is only

available coded to SOC2000, but for all others data is available in both SOC90 and SOC2000).

2.3.3 Goldthorpe scheme and NS-SEC

Goldthorpe's scheme is one of the most widely used occupation-based social class measures in present day sociology (Breen 2004;Erikson & Goldthorpe 1992a;Erikson, Goldthorpe, & Portocarero 1979;Goldthorpe, Llewellyn, & Payne 1980). It is widely regarded as 'neo-Weberian' because it classifies occupations according to their market situations as well as their work situations and is described as formed according to the relation between the two (Roberts 2001). It is derived from allocating an occupation to a class position according to its usual characteristics on 3 criteria: market situation (wage, pension, sick pay, benefits); employment status; and work situation (level of autonomy/control) (Aldridge 2001). Specific disadvantages to this approach include that a complex nominal (rather than ordinal) measure is generated which may not be as easily used to study hierarchical structures of advantage/disadvantage (Hout, Brooks, & Manza 1996); the scheme is premised on analysis of male occupational structures (Marshall, Swift, & Roberts 1997); and, lastly, extremes of social classes, such as the upper class or non-working underclass are not distinguished (Aldridge 2001;Penn 1985). The CASMIN project (Comparative Analysis of Social Mobility in Industrial Nations see Erikson, Goldthorpe 1992) developed an influential version of

the Goldthorpe schema, often collapsed from eleven to seven categories used for comparative analysis. The National Statistics Socio-economic Classification emerged out of a major review conducted during the 1990's of the two then established classification measures used by the UK Government (SECs and SEGs). By being based upon the Goldthorpe scheme, 'the NS-SEC follows a well-defined sociological position that employment relations and conditions are central to delineating the structure of socio-economic positions in modern societies' (Rose, Pevalin, & O'Reilly 2001: 1). Usefully, NS-SEC is 'nested', providing users with an 'operational version which can be collapsed into a smaller number of categories for analytic purposes' (Rose, Pevalin, & O'Reilly 2001). This flexibility makes it attractive for use in empirical work. In addition, the authors of the scheme have attempted to provide useful prescriptive advice on incorporating those not working into positions within the scheme, either based on last employment or by being allocated to an addition 'Never worked/long-term unemployed' category (Rose & Pevalin 2001). In addition, a further attraction of NS-SEC is that it provides a broad template for a further new scheme, E-SEC, which is designed for, and increasingly used for, comparative international research (Rose & Harrison 2007). Nevertheless, as with the Goldthorpe scheme, NS-SEC may be considered problematic in having a nominal rather than ordinal nature, and in allocating women's jobs disproportionately to a small range of classes.

2.3.4 RGSC

The Registrar General's Social Class is built on the assumption that society is a graded hierarchy of occupations ranked according to skill (Rose & Pevalin 2001). The Government's official class scheme from 1911-1998, the RGSC is arguably the most well known social class scheme in Britain (Roberts 2001). Nonetheless, the six category scheme ranging from unskilled manual to higher level professionals provoked criticism through the difficulty of measuring 'skill' and the lack of an underlying theoretical base (Roberts 2001). Positively, the RGSC is widely known and therefore provides a recognisable and comparatively reliable short hand for understanding patterns of socio-economic difference related to occupations.

2.3.5 Cambridge Scale and CAMSIS

In contrast to the categorical classifications, the Cambridge scales are gradational. Gradational occupation-based schemes identify occupations in terms of how much they typically have of whatever is considered crucial-power, income, status, etc. This approach uses empirical evidence on the structure of social interaction, as measured though friendship and marriage patterns, to characterise occupations in terms of their gradational positions in a structure of social advantage and disadvantage (Prandy 1990;Stewart, Prandy, & Blackburn 1980). The original Cambridge Scale was developed as a partial solution to the criticisms aimed towards the plethora of social

stratification measures; namely, the limited agreement on the theoretical

status of the various measures available and dissatisfaction with the

processes by which they are constructed (Prandy 1999).

   The Cambridge scale aimed to move away from a reliance on some

prior conceptualisation of the very concept that they are seeking to establish.

In other words, the thinking behind the scale was not to base the measure on

expert views or theoretical ratings of prestige, but to use data 'on the

occupations of those who interact socially on terms of equality, reasoning

that incumbents of occupations that are socially similar would tend to

interact more than incumbents of those that are dissimilar' (Prandy 1999:

630). Although such an approach imposes no restrictions on the ranking of

occupations, in practice, the scale is well correlated to other schemes.

   CAMSIS scales update the Cambridge scales with more recent

empirical data for a wider range of countries. The Cambridge and CAMSIS

scales place employment at the centre as it 'still provides the major

mechanism by which social and economic rewards are distributed directly or

indirectly in modern societies' (Bergman & Joye 2001: 36). These scales are

also gender-sensitive with different scales for men and women, which may

provide a more contemporary approach; this is particularly appropriate in

this research looking at young men and women in their early careers.

   More general disadvantages associated with using occupational data

can also be problematic; social class characteristics may not remain constant

over time (for example, traditional middle class doctors and teachers are now

included in many other job types); also, there are problems in classifying many occupations such as the inactive and women who do not work; individuals' social position varies over the life cycle, presenting the question of when and how to compare generations.

These are but a small selection of the many measures of class and stratification which can be operationalised in social research. As mentioned in the last chapter, theoretically, the social interaction scales are apposite to this research on young people as they engage with a relational rather than structural theoretical model which might be expected to be more appropriate for studying young adults, whilst they also offer a convenient functional form and can be applied readily to males and females and therefore provide a contemporary option as well as being comparable historically (Lambert 2008). In order to assess these claims, however, I will compare the CAMSIS measure of family stratification with others throughout the analyses.

2.4 Social mobility and young people- the current arguments

Payne and Roberts (2002) comment on the paucity of fresh data for the purpose of social mobility research since the 1972 Nuffield study. Despite an entire generation passing; there is still an over-reliance on this data.

Together with its age, there are other notable disadvantages of continuing to use this much quoted study. There is an over-concentration on male mobility (data was collected solely on men with women being assigned to their partner's class) therefore no attention is paid to changes in the

labour market for women. Also, methodologically, the study is largely cross-sectional and so longitudinal comparisons based upon it use cohorts from within a single survey rather than comparing surveys taken at different times (Erikson & Goldthorpe 1992a;Goldthorpe, Llewellyn, & Payne 1980).

Since the time of Payne and Roberts' review, a wider range of UK surveys have been exploited as a source of analysis of social mobility patterns (Blanden, Gregg, & Machin 2005;Goldthorpe & Mills 2004;Lambert, Prandy, & Bottero 2007). This research uses the BHPS to study intergenerational transmission. This longitudinal panel survey can be summarised using cross-sectional and longitudinal approaches, and the nature of the data, as discussed above, could provide fresh evidence on young people growing up in more recent decades. Indeed, some of the above problems can be dealt with directly in this research giving equal and visible attention to the mobility of young women whilst also making specific use of mothers and grandmothers' stratification position and education as potential explanatory factors. Further discussion of family linkage and explanatory factors will be taken up in Chapter 6.

Glass and Hall's early influential study (1954) illustrated limited mobility, coming before the changes in the post war education act. Goldthorpe's fore-mentioned works (Erikson & Goldthorpe 1992a;Goldthorpe, Llewellyn, & Payne 1980) finally updated this study and showed a much more fluid society, but one in which moderate volumes of

mobility were also counterbalanced by strong, significant, and stable influences from parental origins. The latter point, of little change in relative social mobility rates over time, came to be a widely accepted sociological orthodoxy. However, Payne and Roberts (2002) disagree with the conclusions drawn by Goldthorpe and his team of constant social fluidity. These authors found *more* fluidity overtime than was observed in Goldthorpe's Nuffield study; this implies a weaker association between origins and destinations, arguably making Britain a more open society (Payne & Roberts 2002).

Blanden, Gregg and Machin (2005) state that beneficiaries to recent educational policies in the UK have been those from more fortunate backgrounds therefore neglecting to (positively) influence the mobility of those further down. Their results show that the relationship between family income and children's higher education attainment has strengthened between cohorts completing education in the 1970s and the late 1990s (the National Child Development Study 1958 and the British Cohort Study of 1970). Therefore, changes have benefited affluent families and therefore reinforced immobility across generations (Blanden & Machin 2007). Blanden and Machin's research (2007), which received widespread publicity and political endorsements, therefore marks a break from sociological traditions accounting for mobility trends, claiming a recent and substantial decline in social mobility in the UK. It has, however, been criticised on a variety of

grounds (Goldthorpe & Jackson 2007;Lambert, Prandy, & Bottero 2007;Nicoletti & Ermisch 2008) leading others to maintain theories of stability, or increase, in mobility rates over time.

In understanding sociological trends, Saunders' work (Saunders 1990a;Saunders 2010) has raised the issue of 'natural abilities and cultural advantages'. Reflecting on evidence showing a mixture of intergenerational mobility and correlation, Saunders is interested in whether contemporary Britain can be labelled as a meritocratic society (Bond & Saunders 1999;Saunders 1990b;Saunders 1995;Saunders 2010). His argument is that Britain is a meritocracy since most intergenerational correlation can be explained by natural differences in ability and effort which are correlated to parental background. This characterisation has been vehemently disputed (Breen & Rottman 1995;Lampard 1995). This will be explored empirically in later chapters using a variety of background measures.

2.5 Conclusions: Measuring stratification with the Rising 16's

The young people considered in this research have and are experiencing their youth phase in the era of the 1990s into the 2000s. They are traversing the change from education to employment at a time when there is mixed, often out-dated, evidence on the fluidity in society; this research seeks to contribute to the debate with contemporary data. The preceding sections have provided the background with which to move

forward; a description of the Rising 16's cohort, the contextual landscape

they have made their transitions in and, crucially, the issues around social

mobility, stratification and the classification measures available for

measuring them. The BHPS's longitudinal data offers comprehensive

background information on young adults and their measured outcomes

related to stratification position, as well as potential linkage to data on wider

family members, thus offers the potential to address many concerns raised

by this review.

The subsequent chapter looks more closely at the data resources to be

used; the BHPS and its comparison with the Youth Cohort Study.

Chapter 3: Youth Data and Youth Data Resources

In this chapter I examine the range of youth data and the availability of youth data resources for contemporary research on young adults. The terms used throughout this work will also be clarified.

3.1 Youth Data in the 1990s

The UK has been comparatively well resourced with birth cohort data. The National Survey of Health and Development (NSHD), the National Child Development Study (NCDS) and the British Cohort Study (BCS70), are birth cohorts of children born in 1946, 1958 and 1970 respectively, and respondents continue to be surveyed well into adult life. These data sources have historically provided a rich source for youth research. They are now rather dated however, and are of diminishing utility for youth research. There was no national birth cohort data collected between 1970 and the introduction of the Millennium Cohort Study (MCS) in 2000/01.

The BHPS offers a potential resource for studying the lives of young people growing up in Britain in the 1990s (Gayle 2005). The Young Person's Survey within the BHPS, which is termed the British Youth Panel (BYP), is an obvious source of data on young people. There are a number of examples of robust empirical research based on these data (for example Bradshaw 2001;Brynin 1999;Scott 2002). However this dataset is not widely known

within the British youth research community and may not yet have reached

its full analytical potential.

3.2.1 The Data: The British Household Panel Survey

 Based at Essex University's Institute for Social and Economic

Research, the British Household Panel Survey (BHPS) has been running since

1991. 18 sweeps (known as Waves) have been carried out. The survey

originated as a representative study of 5,500 British households and

approximately 10,300 individuals. Based on 45 minute interviews, the 'panel'

feature of the survey refers to the households (and individuals) being re-

interviewed year after year, typically in the autumn. Datasets are updated

and re-released annually on the UK Data Archive and, at present, are

available to 2008, Wave R.

Whilst providing a cross-sectional data resource on the population for

over 18 years, the central aim of the BHPS is to enable *longitudinal* research.

Subsequently, it is primarily produced in order to make micro-data sets

available to a wide range of secondary analysts across a range of social

science disciplines, and for policy research, rather than to generate reports

specified at the time the study was started (Taylor, Brice, Buck, & Prentice-

Lane 2009).

Previously Britain's largest longitudinal study, the BHPS was awarded Government funding as a stand alone survey until 2009. Subsequent to that decision, however, the survey was subsumed into the UKHLS (UK Household Longitudinal Study), titled 'Understanding Society'.

Interviews for the first wave of this much larger survey started in January 2009, carried out by NatCen, again in conjunction with ISER, with eight times as many households are involved, around 40,000. This sees a much anticipated expansion to the already feted history of longitudinal panel data in the UK and, crucially, the core BHPS respondents remain tracked as a wealthy data resource which will be continued. As an illustrative example of how vast the BHPS has become, over 39,000 different people have been interviewed since 1991, with the number of individuals per wave at Wave Q (2007) having increased by 50 per cent since its inception (now 15,000).

Regarding the large number of cases in the sample, it could follow that a high drop-out rate may be a negative consequence, especially when taking longitudinal survey non-response together with the issues already present in cross-sectional survey collection.

Individuals may be lost for many unavoidable reasons such as moving house, leaving home temporarily, or dying. However, the BHPS makes a huge effort to follow participants in a number of ways (see Taylor, Brice, Buck, & Prentice-Lane 2009). Strikingly, around 5100 individuals gave full interviews in *both* Wave A and Wave Q.

Taris (2000) relates that attrition is most detrimental when it is a cumulative problem. Once an individual has dropped out after a certain number of waves, they are then lost permanently. In the case of the BHPS, however, as the sampling revolves around households, it is quite common for family members to return after an extended absence, such as a young person returning from university. These individuals will have incomplete records but will be interviewed again wherever possible, providing some pattern to be further drawn and also insight into the mobility of household members (Blundell, Brewer, & Francesconi 2004). More on the favourable follow-up rate will be discussed further on in Chapter 4.

Returning to the survey's origin in 1991, identification was made of 14,000 household members in this initial Wave (with approximately 10,000 adults giving full interviews, and 3000 of these being children under 16 years old). They were given personal identification numbers (PIDs). By Wave Q the population of members of sampled households had increased to almost 21,000 household members (15,000 interviewed), including 4500 children under 16 years old. Those young people enumerated before they age into the adult survey provide the source of considerable volumes of interesting survey data, as discussed below.

The British Youth Panel (BYP), as mentioned above, is a further asset to youth research nested in the BHPS. A youth survey which began in 1994

(Wave 4 of the BHPS), BYP interviews take place with 11 to 15 year olds,
termed the 'Rising 11's' due to the standard rotating nature of the panel (see
figure 3.1) and their 'ageing' into the survey upon turning 11. Available data
includes topics such as aspirations, feelings about school and family, and
basic household characteristics. Crucially, as respondents move into the adult
survey analysis of their responses in the BYP can be linked to their
subsequent responses as adults in the BHPS. Also considering the full range
of household information, possible analyses include the impacts of both
home context and of specific relationships, whether with parents, siblings, or
other household members; this is forefront in this research.

Rotating Panel Design

Birth Year		83	84	85	86	87	88	89	90	91	92	93	94	95
Year	BHPS Wave													
1994	D	11												
1995	E	12	11											
1996	F	13	12	11										
1997	G	14	13	12	11									
1998	H	15	14	13	12	11								
1999	I		15	14	13	12	11							
2000	J			15	14	13	12	11						
2001	K				15	14	13	12	11					
2002	L					15	14	13	12	11				
2003	M						15	14	13	12	11			
2004	N							15	14	13	12	11		
2005	O								15	14	13	12	11	
2006	P									15	14	13	12	11
2007	Q										15	14	13	12

Figure 3.1

Aside from this opportunity, the online documentation reasons that the BYP is valuable when researching young people as, 'the transitional nature of adolescence' makes a youth panel a rare reserve of information about each cohort. The BYP is an on-going panel with an 'increasing pool of transitions which can be studied as new 11-year olds are added and as the cohorts move upwards one year. Every year the number of wave-on-wave and longer transitions increases' (Taylor, Brice, Buck, & Prentice-Lane 2009: 150).

Following participation in the BYP, the rising 11's go on to become the Rising 16's as they advance into the adult survey the year they turn 16. There is a great potential here for following young people from childhood right through the transition to adulthood and beyond.

As detailed above in relation to the BYP, there are obvious possibilities for linking children and young people. Not only to their parents, as in longstanding social mobility research but, additionally, to the characteristics of their households, to household income measures and to other relatives such as siblings and co-resident grandparents. This has the potential to illuminate relationships and patterns in family effects which have not previously been explored through large scale survey research.

Further to this, going beyond those members who are co-resident in the household, the BHPS tracks people after they leave the household and,

similarly, those who *enter* the household. This opens up analyses dealing with the increasing situation of family dissolution and disruption; family and relationship formation with, for example, step families; again, a major asset over many other surveys.

A further beneficial attribute of the BHPS is that it even tracks non-resident parents (illustrated in figure 3.4). This facilitates social mobility analyses and linkage of the growing numbers of young people who are not co-resident with both known parents.

3.2.2 Sub-samples

From 1997 the BHPS entered a partnership with the United Kingdom European Community Household Panel (ECHP). This involved the BHPS incorporating a sub-sample of the original UKECHP, including all households still responding in Northern Ireland, and a 'low income' sample of the Great Britain panel. The low-income sample was selected on the basis of characteristics associated with low income in the ECHP. The sub-samples aimed to extend coverage to the whole UK, and to increase the sample of lower income households available for analysis. Such households have proved to be a priority group for many BHPS research agendas (Taylor, Brice, Buck, & Prentice-Lane 2009).

Another critical development took place at Wave 9. This was the recruitment of two additional samples to the BHPS containing over 2000

extra households in each of Scotland and Wales. This enlargement

encourages, firstly, independent analysis of the two countries; exemplified in

the 'subpopulation' analyses in Heitmueller's paper(2004), which uses the

Scottish sub-sample. And, secondly, it facilitates comparative analysis of the

two countries with England, pertinent when evaluating the impacts of

changes in public policy stemming from devolution.

At Wave 11, the survey was further extended to Northern Ireland with

the introduction of a sample of around 2,900 households (5,200 persons).

Due to these additions it can be said that, from 2001, the BHPS has been a full

UK-wide survey (Taylor, Brice, Buck, & Prentice-Lane 2009).

Aside from these designed sub-samples a less obvious selection,

however, is to choose specific sub-samples from the BHPS according to one's

research interest. The scale of the BHPS could often permit this, such as, for

instance, to select a sub-sample of individuals with a particular occupation or

employment pattern. In the case of this research, the sub-sample of young

people reaching 16 within the survey (i.e. Rising 16's) is selected this in this

way.

3.2.3 Structure

Arranged using several record types, the BHPS is designed to be

matched using the aforementioned personal identification number (PID). The

diagram below illustrates the composition of the survey records' contents
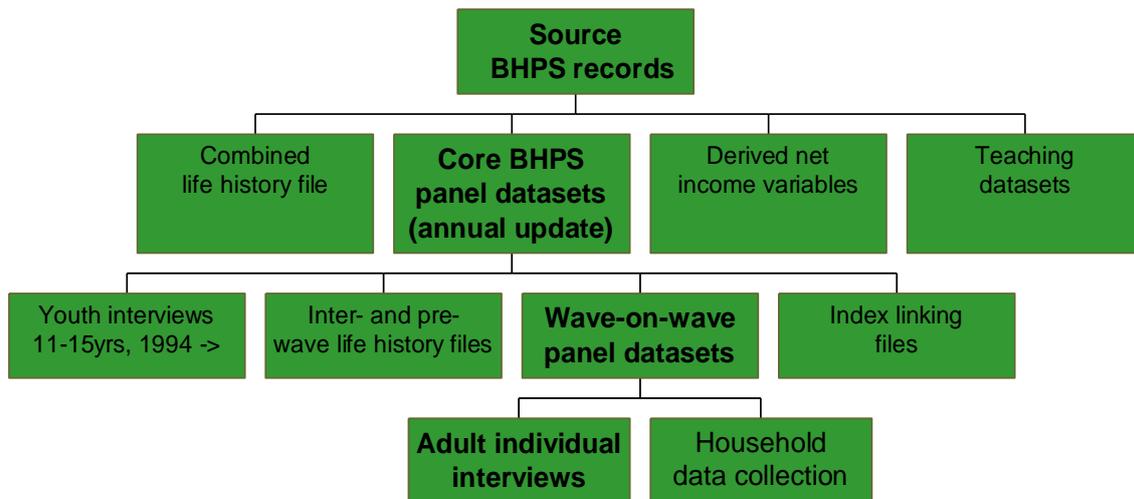
structured above.

Figure 3.2

Table 3.1 taken from (Lambert 2006) gives a thorough précis of the records' contents structured above.

File suffix references:
egoalt: indexes for intra-household links
hhresp: basic characteristics of household
hhsamp: respsone levels by household
income: measures of income and sources
youth: Interviews with 11-16 year olds
childad, childnt, cohabit, marriag: life history, information on key demographic events, predating first panel entry
child: specialist data on the children of a respondent
indall: basic characteristics of all household members (includes children, non-interviewed)
indresp: full dataset of all adults' responses
jobhist: details of employment history through period since last interview or last 12 months
indsamp: information on inter-wave links
clifejob: pre-1991 life history information on employment circumstances
Cross wave files:
xwaveid: Information on the cross-wave response patterns of each BHPS individual
xwlsten: Information on the latest known sample status of each BHPS individual
xwavedat: Harmonised data on certain fixed-in-time variables (e.g., ethnicity; parental occupation)

Table 3.1

Aside from the individual records, there are 178 variables on the household and information is collected on every member of those living under the same roof. Whether or not an individual is present at the interview stage, or old enough to participate, they will still be 'enumerated', and therefore acknowledged as potential respondents for follow up in the study. There are core questions on household composition, housing conditions, residential mobility, education and training, health and the usage of health services, labour market behaviour, socio-economic values, income from employment, and benefits and pensions.

As well as annually asking respondents about their position at that particular moment in time to ascertain any changes or updates, interviewers collect retrospective data such as work life histories from the time of leaving school; marital / cohabitation, and fertility histories. To further clarify, these questions are posed to elicit retrospective data on survey members' life histories before the first interview (history of marriage, cohabitation and fertility; lifetime job history) and, therefore, once more extend the potential scope of collection. As well as being held in the individual files, such as 'indresp', the fixed in time variables are collated in the 'xwavedat' file, one of the index linking files, and a separate record covering harmonised life history data is released after further data processing (see Halpin 2006).

In addition to the copious amount of existing data, the BHPS also supports the innovation of adjoining new questions at pertinent time points which reflect changing policy and research issues. For example, in the most recent wave available on the documentation, Wave 18 (2008), new questions on neighbourhood, expectations of relationships and marriage in the future and, national identity were added. Sometimes the rewording or categorising of current questions can pose problems for longitudinal data analyses; however, an attractive feature is that researchers are welcome to request questions or topics which may aide research and policy.

Concurrent to the attributes already discussed, the British Household Panel Survey has several supplementary strengths which make it an advantageous dataset to use for secondary research. Aside from being nationally representative of households in 1991, the progressing representativeness has been upheld through following all 'original sample members' (OSM), whether they move house or the household splits up into further off-shoots. The second wave and thereafter, interviews are done with all adults who live in a household containing either an OSM or an individual born to an OSM, regardless of whether the new household member was an OSM. This ensures the sample continues to be broadly representative of the population of Britain despite temporal change (Blundell, Brewer, & Francesconi 2004: 7).

The large sample size is also an advantage alongside the large amount of data (household & individual) and the high data quality collected via interview rather than questionnaires. Where the BHPS has the edge is undoubtedly its panel element which opens possibilities for tracking people and matching them across time. The ability to create files with an individual's information at more than one point in time allows investigation around processes and transitions (Rose, Buck, & Corti 1991). Moreover, the panel element of the dataset can be used in a 'long' format (explained in later sections) to build comprehensive statistical models for individual or household outcomes.

The ISER and UK Data Archive at Essex University puts immeasurable effort into the production of data, for example, thorough checking, frequently updated documentation, and a user friendly website with email access to those who can help out with questions on data usage.

The high quality of the information collected in the survey is also a huge asset to the BHPS. Focusing in on the occupational information and the work history files, together with the income information set the BHPS apart from studies of similar content (Lambert 2006). An example of work using occupational information can be seen in Berthoud and Gershuny's work (2000).

'the BHPS….. includes information on current labour market status……and the date at which that status was entered. For those in some form

of employment, data on a range of job characteristics are available... also includes an account of all labour market transitions occurring since September of the previous year....information on type of employment (or status if out of the labour force), spell start and end dates, occupation, industry and the reason for leaving any jobs. These rich sources of employment data, together with the household and demographic information collected at each date of interview, make the BHPS particularly important for labour market research.' (Berthoud & Gershuny 2000: 75)

Berthoud and Gershuny (2000) were able to use the BHPS to study changes in economic activity and job and career mobility in Britain using the panel and retrospective data the study provides; an examination of labour market transitions across an individual's career was enabled, again illustrating the potential of the dataset for panel analyses.

On the down side, there are limitations which can apply across the board to many large scale studies. Firstly, whilst there are hundreds of measures the exact variables desired for specific analyses might not be there. Together with this, the data structure is relatively complex and requires expertise with data handling, for example, knowledge of matching and merging data. This appearance of a complicated data structure can put people off, for example, believing that they must be competent with tools such as survey weights. Nevertheless, these are issues that can be dealt with

through recoding and spending time using the data, and are certainly not a barrier to impede long term progress.

3.2.4 Rising 16's

The present focus is on Rising 16's in the BHPS. These are young people in BHPS households who have 'aged' into the scope of the adult survey (illustrated below).

Birth Year			83	84	85	86	87
	Year	BHPS Wave	Approximate age at time of interview				
	1994	D	11				
YOUTH SURVEY	1995	E	12	11			
	1996	F	13	12	11		
	1997	G	14	13	12	11	
	1998	H	15	14	13	12	11
	1999	I	16	15	14	13	12
	2000	J	17	16	15	14	13
	2001	K	18	17	16	15	14
ADULT SURVEY	2002	L	19	18	17	16	15
	2003	M	20	19	18	17	16
	2004	N	21	20	19	18	17
	2005	O	22	21	20	19	18
	2006	P	23	22	21	20	19
	2007	Q	24	23	22	21	20

Figure 3.3

As discussed earlier, Rising 16's refer specifically to those young adults, answering their first (and subsequent) full adult interview, who have also been enumerated (or given a youth interview) as members of BHPS households prior to their entry into the BHPS main adult sample. This is complicated at times, for example, in Wave A, we are interested in all who are 16. Waves B-D focus centres on those who will have usually been enumerated as household members in the survey although they are not yet eligible (due to their age) for the adult interview (not yet involved in the BYP but enumerated in order to take part in the adult survey upon turning 16). From Wave D onwards, Rising 16's will be previously enumerated and will normally have participated in the youth panel (BYP) from which they will age into the adult panel.

This comprehensive history held by the survey is a property which is attractive since it allows collection of accurate retrospective (as well as prospective) data on these young people. Accordingly, our analyses are limited to those BHPS respondents from the Rising 16 cohort which, in practical terms, means that the analysis is limited to BHPS 'Original Sample Members' and to members of the original BHPS ('Essex') sample (for sample design terminologies, see Taylor *et al.*, 2009).

3.2.5 Synthetic Cohorts

One aim of the research is to construct 'synthetic cohorts' of young people from BHPS households as they come to the end of compulsory education and either continue in education or move into the world of employment and other activities. Table 3.2 shows the 'synthetic cohorts' constructed for use in some later analyses. These are the Rising 16's split into school year in order to do some educational outcome comparisons with the YCS, shown in later chapters. The table displays the number of Rising 16's who started in each year and the following percentage that remained present in the survey each wave thereafter. This highlights that even after 17 waves, over 50% of the 1991 school leavers are still in the survey. In relation to other studies, such as the YCS which has comparable attrition after only 3 sweeps of data, this is extremely favourable.

Synthetic Cohorts of BHPS Rising 16's (waves A-P): Original sample sizes and subsequent percentages

	Year Completed Compulsory Schooling (Year 11)															
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
n	97	118	134	121	119	147	120	109	117	114	131	111	119	126	122	104
BHPS Wave																
A	100															
B	93	100														
C	81	90	100													
D	76	92	93	100												
E	76	82	86	94	100											
F	72	82	86	91	100	100										
G	75	83	86	90	90	94	100									
H	74	79	84	84	87	87	95	100								
I	68	74	80	78	84	81	86	93	100							
J	66	66	75	74	81	73	78	86	91	100						
K	65	64	69	74	71	71	74	83	79	89	100					
L	61	56	66	64	71	68	65	72	74	79	85	100				
M	59	58	63	59	65	62	69	67	69	79	74	85	100			
N	54	57	63	59	63	61	60	68	71	74	67	77	96	100		
O	54	53	61	59	61	56	59	58	66	72	67	77	84	90	100	
P	52	50	57	60	58	59	53	56	59	68	63	73	76	83	93	100
Q	51	48	55	55	54	56	56	50	56	67	56	65	65	79	83	89

Table 3.2

Note: Respondents giving full adult interview

From the outset it is clear that the 'synthetic cohorts' have relatively small sample sizes. Between Wave A (1991) and Wave P (2006) 1,870 young people living in England and Wales grew up into the scope of the adult survey from Original (Essex) sample households. This represents about 120 young people each school year. However, analysis here comparing this subsample with that of the nationally representative YCS, proved that the Rising 16's do closely imitate the trends of the national population.

Synthetic Cohorts					
Year	Wave	Approx. Age	n	Employed	Full-time Student
1991	A	16	97	21%	67%
1992	B	17	90	25%	56%
1993	C	18	79	36%	45%
1994	D	19	74	53%	34%
1995	E	20	74	60%	29%
1996	F	21	70	67%	23%
1997	G	22	72	71%	14%
1998	H	23	72	83%	6%
1999	I	24	66	84%	1%

Table 3.3

The cohorts were constructed by splitting the BHPS Waves (years of interview) into school years depending on whether a young person is born before or after the September watershed (the cut-off point for the forming of school classes by birth date in England and Wales). In this respect, individuals were either in group A (those with the same school year as their

Rising 16 wave) or group B (those who are younger and have their school

leaving year one year after they enter the survey).

These synthetic cohorts can then be used for the motivation of

exploring whether or not data from the BHPS can be used to sensibly study

aspects of growing up in Britain in the 1990s. Table 3.7 is an example of the

main activities of a portion of these young people.

As stated, the design of the BHPS will allow us to link household level

information with data on the young person, for example, housing tenure,

number of people of working age in the household and, how many rooms the

dwelling has.

The structure of the BHPS also facilitates linking information from

parents, as previously discussed. There is plentiful data on co-resident

parents, covering educational measures such as school type and

qualifications, and also on occupation and employment status. Further to this,

the BHPS features some *extra* information about parents even if they have

not answered directly themselves (i.e. if they were never interviewed as co-

resident to the youths), that is to say, information the young people have

given in their own interviews about their parents (this is especially apparent

in the first Wave). Therefore, there is the possibility of imputing those who

had retrospective 'parental data' (i.e. data on parents, given by children) in

order to, potentially, reduce the missing data.

In detail, renaming the xwavedat measures by prefixing with an x avoids risk of duplication of names with the master file. The generic mothers' and fathers' data can also be prefixed to avoid duplication and all three temp files saved separately. These can be individually merged on the Rising 16's personal indicator, allowing comparison. The variables are then available in three categories. The xwavedat data prefixed with x (e.g xmasoc; xpaju; xpasemp; xpaboss; xpamngr; xmasoc; xmasemp; xmaboss; xmamngr and so on). The y prefixed measures from the individual files and the manufactured measure isoc which gets more valid cases because it is an aggregate over any year of the BHPS in which the mother was co-resident and was working, whereas mumsoc uses only those co-resident when the 'Rising 16' was age 16. Either option is justifiable.

In the same respect, it is plausible that the BHPS structure will also facilitate the linking of information from older siblings and from non-resident parents and step-parents. See figure 3.4 below.

Household

(resident)

Other Household

(non-resident)

Parents / step parents

(co-resident)

Parents/step parents

(non-resident)

Older siblings
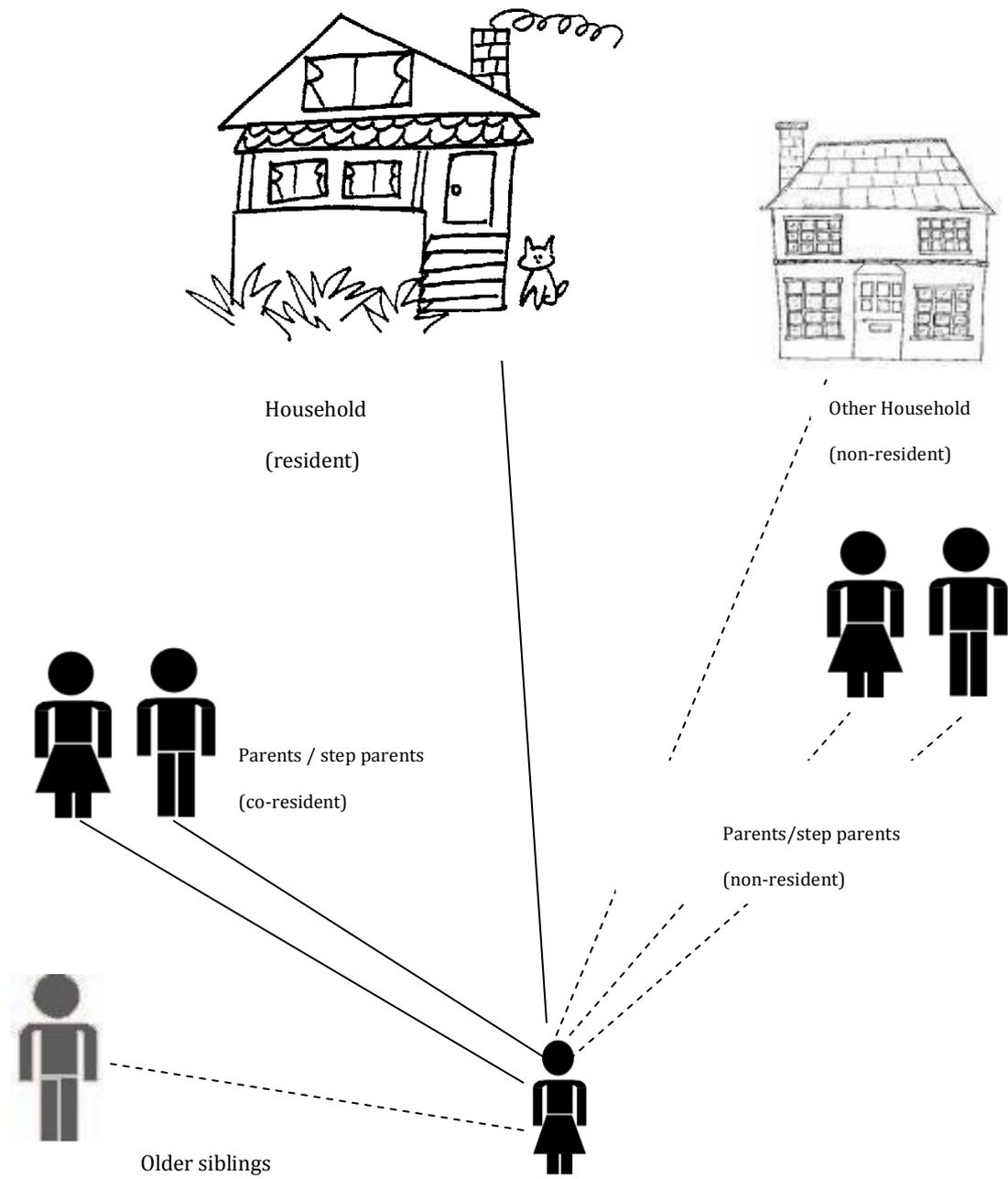
Figure 3.4 Potential Data BHPS Data Sources

To conclude, the discussion has shown that the British Household Panel Survey is a highly appropriate and, indeed, advantageous longitudinal dataset for the proposed analysis. Besides offering a wide range of information on young adults, there are tremendous possibilities for data matching to household characteristics and information on generations of family members both resident and non-resident. Furthermore, the BHPS records data on those people to a much higher standard. The structure and content of the BHPS may be used to overcome some of the restrictions presented by other studies.

3.3.1 Youth Cohort Study

One extremely rich dataset which succumbs to some of the problems mooted above is The Department for Education and Skills (DFES) 'Youth Cohort Study' (YCS). Conducted on a sample of young people (aged 16-19) in the year after they are eligible to leave compulsory schooling, it has specific focus on the routes young people follow post 16.

Data are collected about their activity status, i.e. whether they are in a full-time job, full or part-time education, on a training scheme, unemployed or doing something else. Also collected is information about their qualifications (gained and studying for), family background and other socio-economic and demographic data.

The survey covers England and Wales and involves a sample of around 20,000 young people followed up over a two-year period.

Respondents are contacted in their first year after the end of compulsory schooling (aged 16/17), and usually followed up one and two years later, aged 17/18 and 18/19. However, the 7th and 8th YCSs which started in 1994 and 1996 respectively did not include a survey at age 17/18.

We have previously argued that the Youth Cohort Study of England and Wales (YCS) partially plugs the gap left by the missing British birth cohort datasets (see Gayle, Lambert and Murray 2009). The Youth Cohort Study of England and Wales (YCS) is a major programme of longitudinal data collection which began in the mid-1980s. The YCS is designed to monitor the behaviour of young people as they reach the minimum school leaving age and either stay on in education or enter the labour market. The main data collection instrument is a postal survey. The survey collects detailed data on experiences of education and qualifications, as well as data on employment and training. Some data is collected about the young person's personal characteristics and circumstances. A small amount of data is collected on their aspirations, and on their families.

The YCS provides a valuable source of data on young people growing up in the 1990s. The sample is designed to be representative of all Year 11

pupils in England and Wales (those reaching the end of compulsory

education). The study contacts a sample from an academic year group

(cohort) in the spring following completion of compulsory education. The

sample size for each YCS cohort is large (see Table 3.1). There is a short panel

within the data and young people are tracked and usually surveyed at three

time points. These follow-up surveys normally take place at yearly intervals.

The multiple cohorts of the YCS allow comparisons that facilitate analyses of

trends over time.

Table 3.4 YCS Cohorts: Original and subsequent sample sizes

YCS Cohorts	Year respondent reached minimum school leaving age	Number of respondents			Percentage of sweep 1 respondents remaining at sweep 2	Percentage of sweep 2 respondents remaining at sweep 3	Percentage of original respondents remaining at end of survey
		Age at survey					
		16-17	17-18	18-19			
1	1984	8,064	6,075	5,061	75	83	63
3	1986	16,208	12,319	9,328	76	76	58
4	1988	14,116	10,464	8,189	74	78	58
5	1990	14,511	10,951	8,396	75	77	58
7	1993	18,021		8,199			45
8	1995	15,899		10,130			64
9	1997	14,662	9,710	6,304	66	65	43
10	1999	13,698		7,238			53

The design, timing and structure of the YCS have all changed over its

lifespan. Croxford (2006) provides an overview of YCS limitations. The style

and content of the questionnaires have also changed, which is partially due to

changes in substantive interests and alternative policy concerns. A diagram

illustrating the structure and timing of sweeps of data collection in the YCS is

provided in Appendix 1. The British birth cohorts have been successfully

used in comparative analysis (e.g. Bynner 2002). A limitation of these earlier

birth cohorts was that they were often too widely spaced to capture the

details of trends. The YCS cohorts are closely spaced (sometimes a year later,

and no more than three years after) to allow better resolution when

analysing trends.

Recently, Croxford *et al.* (2007) have constructed a harmonised YCS

time series dataset which comprises a number of cohorts. In the present

analyses we concentrate on subset of the dataset developed by Croxford *et al.*

(2007) [UK Data Archive Study SN5765]. We focus on five YCS cohorts which

span the 1990s. The cohorts comprise young people who reached the

minimum school leaving age in 1990, 1993, 1995, 1997 and 1999. We

consider that these data sources can usefully provide a benchmark against

which to compare data from young people in the BHPS.

In this research however, I propose analysis of the BHPS as the BHPS

provides a far wider range of information on young adults and their families,

and generally records data on those people to a much higher standard. A primary restriction to appreciate is that as the YCS is a postal survey of young people, only a limited amount of information on their parents and the household in which they live is collected, and the YCS does not collect any detailed information on siblings or other family members. In addition, the YCS collects no information on income and wealth. Many wider problems and challenges of harmonisation have been identified with the YCS in terms of the quality and documentation of the data recorded from its respondents. The structure and content of the BHPS and its high standards of data curation might overcome some of these restrictions.

3.4.1 Comparing BHPS Rising 16's Data with YCS Data

We construct synthetic school year cohorts from the Rising 16's data. This is because waves of the BHPS generally contain two groups of Rising 16's: an older group of 16 year olds who have reached the minimum school leaving age, have completed Year 11 and have usually already sat GCSE exams; and a younger group of 16 year olds who also enter the BHPS adult survey but who have not reached minimum school leaving age at the time of interview, and have not usually sat GCSE exams. Therefore we have constructed 'synthetic cohorts' of school years which are directly comparable to cohorts of Year 11 pupils in the YCS.

We have also limited the data to young people from households in England and Wales from the original Essex sample. This is primarily because the education system in Scotland differs and pupils undertake different qualifications. Additionally, the Scottish school year and age cut-off points for pupils are different to England and Wales. Concomitantly, there is no uniform source of national youth survey data against which to easily compare the BHPS data.

Despite the short length of the YCS panels, and the relatively short period between contacts, the YCS suffers high levels of attrition. For example in the 1984 cohort (YCS Cohort 1) there was 25% attrition between sweep 1 (when the respondents were aged 16-17) and sweep 2, which was a year later (see Table 3.8). Overall, the harmonised YCS cohorts experienced at least 36% attrition two years after the survey began (when the young people were 18-19).

The sample sizes of the 'synthetic' cohorts of Rising 16's are reported in Appendix 2. Retention rates within the adult survey are promising, for example 51% of the Rising 16's, who had completed compulsory schooling, surveyed in 1991, also gave a full interview in 2007 (Wave Q) (see Table 3.2).

As we have noted above, official data reveals that an increasing proportion of young people remain in education after they reach the minimum school leaving age (Department of Employment 1993;Further Education Funding Council (FEFC) 2000). In the YCS data an increasing

proportion of young people remain in education directly after they reach

minimum school leaving age. The YCS data reflects that between ages 16-17

and age 18-19 many young people move out of education and increasing

proportions move into employment. Over the same period many of those

engaged in training move into employment (see table 3.5). Similar patterns of

participation in education are evident in the BHPS 'synthetic' cohorts (see

table 3.6). The BHPS data reports increasing levels of participation in

employment as the young people age, and decreasing participation in

training.

Table 3.5 YCS Cohorts: Young Person's Main Activity (%)

Cohort	Main Activity	16-17	17-18	18-19
1990	Education	62	58	40
	Training	14	14	5
	Employment	18	21	36
	Unemployment	4	4	12
	Other	1	3	7
1993	Education	77		51
	Training	10		6
	Employment	8		33
	Unemployment	4		9
	Other	2		0
1995	Education	77		45
	Training	10		7
	Employment	9		31
	Unemployment	3		5
	Other	1		11
1997	Education	74	63	43
	Training	10	10	9
	Employment	12	18	31
	Unemployment	4	4	6
	Other	1	6	11
1999	Education	76	66	34
	Training	9	9	6
	Employment	11	16	34
	Unemployment	3	4	5
	Other	2	6	21

Note: Weighted data; Standard YCS weights.

1999 Cohort (YCS 10) had an autumn sweep rather than a spring sweep.

Table 3.6 BHPS Synthetic Cohorts: Young Person's Main Activity (%)

School Year	Main Activity	Age of Rising 16's				
		16-17	17-18	18-19	19-20	20-21
1991	Education	60	49	29	27	19
	Training	4	7	5	1	1
	Employment	28	26	36	43	49
	Unemployment	8	10	8	5	5
	Other	0	1	3	3	2
1992	Education	74	57	39	30	32
	Training	10	6	3	0	1
	Employment	13	23	34	38	41
	Unemployment	3	7	12	12	7
	Other	1	1	2	5	3
1993	Education	76	61	40	37	30
	Training	5	8	4	1	1
	Employment	10	19	32	39	45
	Unemployment	7	4	5	6	4
	Other	1	1	4	3	5
1994	Education	66	56	43	33	27
	Training	7	7	1	0	0
	Employment	17	23	32	41	43
	Unemployment	10	7	11	10	9
	Other	0	2	5	2	7
1995	Education	83	66	38	32	34
	Training	2	4	3	1	0
	Employment	10	23	40	43	44
	Unemployment	3	3	6	8	3
	Other	1	3	4	3	5
1996	Education	69	54	33	27	28
	Training	5	1	1	2	0
	Employment	18	34	40	43	36
	Unemployment	8	4	10	5	7
	Other	1	2	5	5	5
1997	Education	77	62	33	35	35
	Training	5	2	3	0	0
	Employment	13	28	39	38	36
	Unemployment	5	5	6	6	4
	Other	0	0	7	2	4
1998	Education	70	56	32	26	21
	Training	3	1	4	1	1
	Employment	18	28	39	44	44
	Unemployment	8	8	12	8	7
	Other	0	5	2	6	6
1999	Education	67	57	28	24	41
	Training	3	3	1	0	1
	Employment	17	19	41	38	44
	Unemployment	9	9	9	9	2
	Other	4	6	4	6	5

In summary, these analyses suggest that YCS and BHPS data show consistent national patterns for analysing youth transitions (Gayle, Lambert, & Murray 2009). An obvious benefit of the BHPS structure is that it tracks young people into their late teens and early twenties. This has much appeal because an emerging theme within the sociology of youth is that the transition to adulthood is being extended (see Hollands 1990). Numerous youth researchers have described how young people, differentiated by structural features (especially education and social background), follow different paths during the teenage years after they leave school (MacDonald 1999). Empirical projects, for example Banks *et al.* (1992) and Bynner and Roberts (1991) provided useful statistical evidence and contributed to conceptual frameworks that centred on notions of 'career trajectories'.

The emerging argument is that historically these trajectories were based on broadly similar routes to employment and had their origins in education and family background, leading towards the predictability of ultimate destinations in the labour market (Bynner & Roberts 1991). Adjectives such as 'pathways', 'trajectories', 'navigations', and 'niches', have been deployed as metaphors to describe youth transitions (Evans & Furlong 1996). Within these conceptual frameworks the emphasis was on the importance of social class, gender and ethnicity and the influence of economic realities such as labour markets and unemployment rates (Evans & Rudd 1998). More recently, youth researchers have been keen to argue that

we have moved, or at least are moving towards, a more postmodern era

(Furlong & Cartmel 1997). The central argument being that social life has

undergone a profound change, although without undergoing a complete

epochal break with the modern period. The overarching claim is that

contemporary societies are typified by greater opportunities for individual

action and decision-making. In this chapter we see that the BHPS provides

detailed micro-level data over a range of birth years which may be suitable

for teasing out and empirically evaluating possible trends.

Chapter 4: Studying Youth and Education in the 1990s

Focus shifts at this juncture onto empirical analyses, presenting two sections on the effects on educational attainment of the BHPS sample of Rising 16's. The first section examines GCSE attainment, the qualifications taken at age 16 when a young person remains in compulsory schooling; the second section explores attainment and main current status (main activity) at 18, two years after finishing compulsory schooling. In the first section the Rising 16's data is explored further in terms of the analysis of social background influences. A long running empirical research theme within the sociology of education and the sociology of youth has been the relationship between social background and educational attainment (e.g. Halsey, Heath, & Ridge 1980). Historically the weight of evidence has indicated that attainment is stratified, typically, those from more advantaged social backgrounds generally achieve higher levels of attainment than their counterparts from less advantaged backgrounds (e.g. Breen & Jonsson 2005).

4.1 Analyses of GCSE Attainment

The General Certificate of Secondary Education (GCSE) was introduced in the late 1980s (Department of Education 1985;Mobley, Emerson, Goddard, Goodwin, & Letch 1986;North 1987). GCSEs form a set of public examinations and generally mark the first major branching point in a

young person's educational career. Poor GCSE attainment is a considerable

obstacle which may preclude young people from pursuing more desirable

educational courses (Gayle, Lambert, & Murray 2009). For instance, young

people with low levels of GCSE attainment are usually more likely to leave

education at the minimum school leaving age and their low levels of

qualifications are also likely to have a longer term impact on their

experiences in the adult labour market (Gayle, Lambert, & Murray 2009).

GCSEs differed from the established Ordinary Level General Certificate

of Education (GCE O-Level) and Certificate of Secondary Education (CSE)

examinations which they replaced. A new grading scheme was established

and there were also changes in the nature and format of examinations and

widespread assessment by coursework was introduced (Ashford, Gray, &

Tranmer 1993). GCSEs are now the standard qualification for pupils in

England and Wales and are taken in the final year of compulsory schooling

(Year 11) when the pupils are generally aged 16. It is usual for pupils to study

for about nine subjects, which will include core subjects (e.g. English, Maths

and Science) and non-core subjects. Generally each subject is assessed

separately and a subject specific GCSE awarded. Usually each GCSE is a

mixture of assessed coursework and examinations. GCSEs are graded in

discrete ordered categories, the highest being A*, followed by grades A

through to G.

Initially a single outcome was concentrated on. This is whether or not the young person attains five or more GCSEs at the level of grade A*-C. This measure is an official benchmark (Leckie & Goldstein 2009). It is also frequently used in educational research (e.g. Connolly 2006). Figure 4.1 reports the percentage of BHPS Rising 16's attaining five or more GCSEs at grades A*-C. The 95% confidence intervals for these percentages contain the national proportions (from official data sources). Figure 4.2 reports the BHPS Rising 16's percentages compared with YCS respondents (discussed in Chapter 3) in the same school year and official figures, and again 95% confidence intervals for the Rising 16's include these percentages (the YCS, as explained in Chapter 3, is a large UK survey of youths of school leaving age which is often used for studying national level trends in educational attainment and participation). Alternate years are used here to correspond with the YCS sweeps. Figures 4.1 and 4.2 both suggest that the educational data from the Rising 16's in the BHPS is consistent with other information and therefore is a suitable resource for analysis of educational attainment.
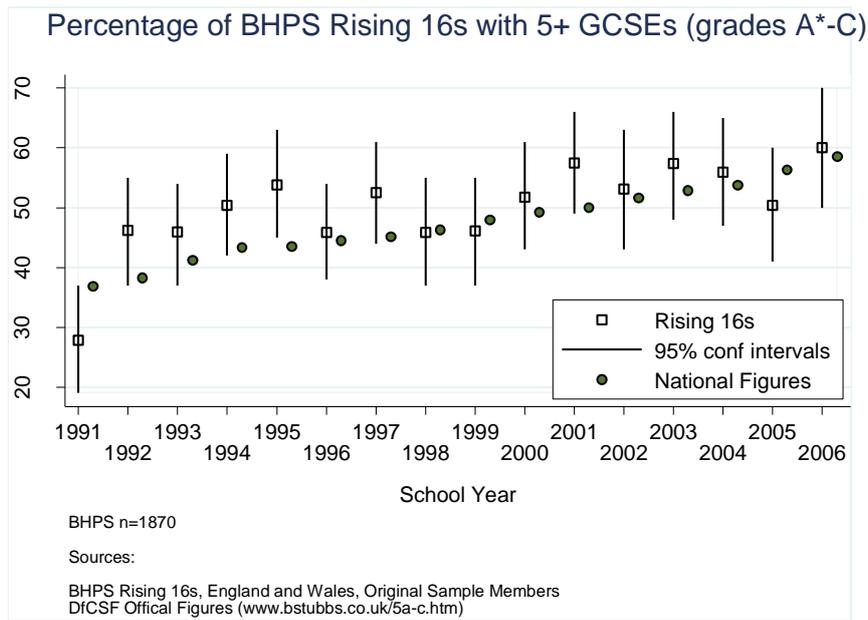
Figure 4.1
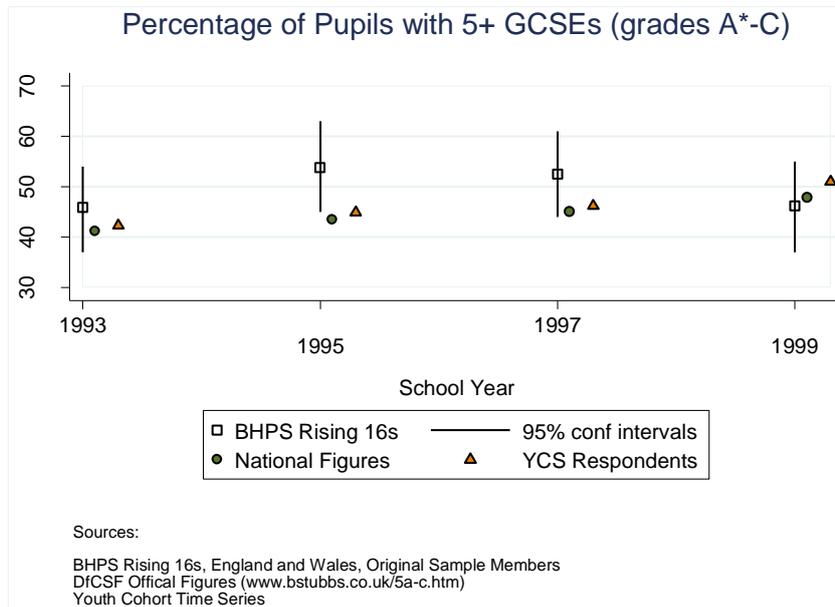
Figure 4.2

It is now possible to proceed by concentrating on explanatory variables that have been identified in previous studies of YCS data (e.g. Connolly 2006;Drew, Gray, & Sime 1992;Gayle, Berridge, & Davies 2003). A summary of descriptive statistics for the BHPS Rising 16's and the YCS data are provided in Appendix 2.

Descriptive Characteristics: Young People Attaining 5+GCSEs (A*-C)				
X variable	BHPS (n)	YCS (n)	BHPS (%)	YCS (%)
Total	503	32965	46.45	42.93
Gender				
Boys	227	15088	40.9	39.55
Girls	267	17877	52.27	48.06
Ethnicity				
White	473	29918	46.83	44.67
Black	4	370	40	27.56
Indian	12	946	66.67	48.63
Pakistani	6	399	54.55	24.86
Bangladeshi	1	167	16.67	2.55
Other Asian	1	490	100	59.13
Other ethnicity	10	344	62.5	44.89
Tenure				
Rented	65	2794	25.29	19.2
Owned	438	29362	53.48	50.53
School year(BHPS)/Cohorts(YCS)				
1991	27	-	27.84	-
1992	55	-	46.22	-
1993	62	18021	45.93	23.47
1994	61	-	50.41	-
1995	64	15899	53.78	20.7
1996	67	-	45.89	-
1997	63	14662	52.5	19.09
1998	50	-	45.87	-
1999	54	13698	46.15	17.84
Household type				
Mum and Dad	420	35904	48	57.89
Mum only	68	3649	42.77	35.98
Dad only	13	730	33.33	33.78
Other household	2	349	15.38	17.73
Parental education				
Non graduates	394	29370	41.39	48.72
Graduate parents	109	9979	83.21	68.96
Family CAMSIS score				
Mean with >5 GCSEs	-	-	40.26	43.75
Mean with 5+ GCSEs	-	-	46.45	56.25
School type				
Comprehensive	227	25189	42.35	77.48
Grammar	54	2210	70.13	91.12
Secondary Modern	51	681	32.28	24.71
Independent	35	4808	76.09	84.56
Source: BHPS Rising 16's Essex Sample, England and Wales, 1991-1999 (n=1083); YCS Cohorts 1990-1999 (n=76791).				

Table 4.1

Table 4.1provides a summary of the characteristics of the young

people attaining 5+ GCSEs at grades A*-C. An increasing percentage in the

more recent 'synthetic cohorts' attained 5+ GCSEs at grades A*-C, which is

consistent with the national trend. As we would expect from earlier analyses

of YCS data, GCSE attainment is stratified by gender, ethnicity, housing

tenure, household type, parental education, school type and family socio-

economic classification (see Gayle, Berridge, & Davies 2003).

During the 1970s and 1980s the primary focus of research on gender

in the field of education was on girls (Warrington & Younger 2000). The

overall message was that expectations, aspirations and choices were

structured along traditional gender lines to the disadvantage of young

women (for example see Deem 1980;Griffin 1985;Sharpe 1976). In recent

years the situation has reversed and there is now growing concern about the

lack of participation, and the under-achievement, of boys (Younger &

Warrington 2005). Focusing on gender, it is noted that in both datasets girls

out perform boys and a higher percentage attain 5+ GCSEs at grades A*-C.

It is well observed that there are differing levels of attainment across

ethnic groups (see Bhattacharyyal, Ison, & Blair 2003;Drew 1995;Drew, Gray,

& Sime 1992;Gillborn & Gipps 1996). There is continued concern regarding

the educational participation of white boys from poorer families, extending

back decades (Cassen & Kingdon 2007;Casson 1979). Ethnic differences in

the proportions of young people attaining 5+ GCSEs at grades A*-C are

reflected in the YCS data (see Table 4.5). Some groups (e.g. young people of

Indian origin) outperform their white counterparts whilst other groups do

less well (e.g. black pupils). However, the BHPS is a nationally representative

sample of British households without additional over-sampling of minority

ethnic groups (although the new survey 'Understanding Society', which will

comprise a continuation and extension of the BHPS from 2008 onwards, does

include substantial minority ethnic group over-samples, this data was not

available for analysis at the time of writing). Therefore, in the BHPS, sub-

sample sizes of households with minority ethnic respondents are necessarily

small. The small numbers of ethnic minority Rising 16's are reported in

Appendix 2 and the correspondingly small numbers attaining 5+ GCSEs at

grades A*-C are reported in Table 4.1. Therefore in the remainder of this

analysis we do not include any ethnicity measures.

Logistic Regression Models: Attaining 5+ GCSEs (grades A*-C)		
	beta & Z statistics	
	Model 1 YCS	Model 2 BHPS
1990 cohort	-	-
1993 cohort	0.36 ***	0.57
	13.13	1.90
1995 cohort	0.60 ***	0.99 **
	21.28	3.26
1999 cohort	0.93 ***	0.90 **
	30.79	2.94
Girls	-	-
Boys	-0.36 ***	-0.60 ***
	-20.06	-4.07
Family CAMSIS score (dominance approach)	0.04 ***	0.03 ***
	54.33	5.29
Young person attended comprehensive school	-	-
Young person attended grammar school	2.52 ***	0.84 *
	28.51	2.56
Young person attended secondary modern	-0.66 ***	-0.42 *
	-13.86	-2.00
Young person attended independent school	1.94 ***	1.16 *
	37.13	2.44
Housing tenure: Owners	-	-
Renters	-0.76 ***	-0.78 ***
	-29.14	-4.07
Lives in a Mum & Dad household	-	-
Lives in a Mum only household	-0.11 ***	0.21
	-3.90	0.97
Lives in a Dad only household	-0.29 ***	-0.92 *
	-5.31	-2.07
Lives in another household type	-0.68 ***	-2.06
	-9.13	-1.86
Neither parent is a graduate	-	-
Either parent is a graduate	0.43 ***	1.46 ***
	16.97	4.85
Constant	-2.48 ***	-1.75 ***
	-50.19	-4.66

Model 1 (YCS): n=66478; Log Likelihood= -36897 (Pseudo R^2=0.18) Source: YCS Time Series for England and Wales, 1990-1999

Model 2 (BHPS): n=927; Log Likelihood= -539 (Pseudo R^2= 0.16) Source: BHPS Rising 16's, England and Wales, Essex Sample Households, 1991-1999

Table 4.2

Table 4.2 reports the results of a logistic regression model estimating

attaining 5+ GCSEs grades A*-C for the YCS data and the BHPS Rising 16's. We

have constructed a measure of school year grouping (cohort) in the BHPS

Rising 16's dataset to compare these young people more readily with

counterparts in the YCS cohorts. Overall the results of these two models are

similar and it is encouraging that these two models lead to broadly

comparable substantive conclusions. With the exception of household type,

which is not significant in the BHPS data, the direction of the effects of the

other explanatory variables is identical.

Exploratory Analysis: Additional explanatory variables added to BHPS model	
	z scores
Household Information: **Number of rooms**	3.56***
Number of bedrooms	1.51
Number of employed people in household	-2.35*
Number of married persons in household	-0.02
Number of people of working age in household	-3.18***
Terraced house	-3.47***
Parental Information : **Mum attended grammar school**	3.63***
Mum attended secondary modern	-2.69**
Mum attended independent school	1.61
Mum has FE/HE qualification	2.40*
Whether Mum works	2.61**
Number of hours Mum works	0.47
Mum's age when individual is 16	1.93*
Maternal grandfather's Cambridge Scale Male	2.26*
Maternal grandmother's Cambridge Scale Male	0.46
Dad attended grammar school	4.24***
Dad attended secondary modern	-2.29*
Dad attended independent school	0.89
Dad has FE/HE qualification	1.68
Dad's age when individual is 16	1.45
Number of hours Dad works	-0.68
Paternal grandfather's Cambridge Scale Male	2.60**
Paternal grandmother's Cambridge Scale Male	1.32
Source: BHPS, Rising 16's, OSMs, England and Wales, 1991-1999; Note: Additional variables added to logit model which include: cohort; boys; family CAMSIS score; school type; tenure; graduate parents	

Table 4.3

The YCS is based on postal questionnaire surveys and young people are only asked a limited number of questions about their parents and their household. Therefore there are relatively few additional measures that can reasonably be added to Model 1. The BHPS, on the other hand, offers a wealth of additional information about its respondents and their surrounding households, so this next stage of analysis explores an extended set of explanatory variables in the BHPS in order to establish if they could sensibly

be used to improve the analysis of GCSE attainment in the 1990s. Table 4.3

reports the exploratory results for a number of household level and parental

explanatory variables that have been intimated in the wider youth and

education literature, using the forward selection technique as described by

Agresti (1997). Each measure is added separately to assess whether there is

an influence on the outcome. Table 4.4 then reports the full model results of

logistic regression model of GCSE attainment for the Rising 16's, which

include a selection of those measures as additional explanatory variables.

Logistic Regression Models: BHPS Rising 16's Achieving 5+ GCSEs (A*-C)				
	Model 3		Model 4	
	beta	z scores	Beta	z scores
1990 cohort	-	-	-	-
1993 cohort	0.57	1.90	0.50	1.35
1995 cohort	0.99***	3.26	0.70	1.86
1997 cohort	0.89***	2.98	0.60	1.58
1999 cohort	0.90***	2.94	0.98*	2.40
Girls	-	-	-	-
Boys	-0.60***	-4.07	-1.18***	-5.43
Family CAMSIS score	0.03***	5.29	0.01	1.15
Comprehensive school	-	-	-	-
Rising 16 at a grammar school	0.84**	2.56	0.73	1.77
Rising 16 at a secondary modern	-0.42*	-2.00	-0.79**	-2.68
Rising 16 at an indep. School	1.16*	2.44	1.19	1.46
Owner				
Renters	-0.78***	-4.07	-0.79**	-2.55
Neither parent is a graduate				
Either parent is a graduate	1.46***	4.85	0.16	0.41
Lives with both parents	-	-	-	-
Lives only with Mum	0.21	0.97	0.05	0.18
Lives only with Dad	-0.92*	-2.07	-	-
Lives in another type of household	-2.06	-1.86	-	-
Mum attended other school			-	-
Mum attended grammar school			0.49	1.80
Dad attended other school			-	-
Dad attended grammar school			0.83*	2.44
Number of rooms in household			0.24**	2.58
Number employed in household			-0.48***	-3.87
Lives in non-terraced housing			-	-
Lives in terraced housing			-0.68**	-2.56
Mum's age when resp. aged 16			0.06**	2.59
Mum does not work over 40 hours			-	-
Mum works over 40 hours			0.88*	2.04
Constant	-1.75***	-4.66	-3.00**	-2.63

Source: BHPS, Rising 16's, England and Wales, Original Sample Members, 1991-1999
Model 3: Log Likelihood=-539; Pseudo R^2=.16;(n=927)
Model 4: Log Likelihood=-287; Pseudo R^2=.23; (n=547)

Table 4.4

Table 4.4 indicates that many additional measures of background circumstances can indeed make a statistically significant contribution to the explanation of attainment. Many of these possible measures are correlated with each other, but Table 4.4 shows a plausible model which uses a selection of these measures in addition to the original control variables. In Table 4.4, for ease of comparison Model 3 includes only those individuals that have full information on all of the additional explanatory variables and therefore Model 3 is nested within Model 4. It is considered that Model 4 provides some additional insight into GCSE attainment. Model 4 improves upon Model 3 (the R^2 increases from .16 to .23). In particular parental education and mother's age chime with current political and social interests.

Such patterns of significant effects in the expected directions support the view that constructing synthetic cohorts of Rising 16's data is a fruitful activity for undertaking youth research. Whilst this present analysis serves mainly as an illustration, it is encouraging. It has shown that results similar to those estimated using a larger sample of nationally representative data can be obtained, and it has begun to illustrate that additional insight into education might be achieved through the inclusion of more detailed parental and household measures which are available on the BHPS (but not the YCS).

4.2 Eligibility and status two years on

4.2.1 Main Activity at age 18

Despite the focus thus far on academic attainment, it is of value to consider the circumstances and trajectories of all young people, regardless of the type of activities undertaken. Beyond minimum school leaving age the proportion of young people continuing their education has experienced periods of sharp increase. For example, when members of the NCDS 1958 birth cohort reached school leaving age in 1974, the proportion continuing education was around 10%, but this had risen to over 50% for the 1970 BCS birth cohort when they were measured in 1986 (Cheung & Egerton 2007: 205). Moving forward to the 1990s, using the BHPS cohort of Rising 16's, around 60-70% continued education post-sixteen across the group (see Table 4.5 and Table 3.7).

BHPS School Years: Main Activities (%)						
	Main Activity	**Age of Rising 16's**				
School Year		**16-17**	**17-18**	**18-19**	**19-20**	**20-21**
1991	**Education**	60	49	29	27	19
	Training	4	7	5	1	1
	Employment	28	26	36	43	49
	Unemployment	8	10	8	5	5
	Other	0	1	3	3	2
1999	**Education**	67	57	28	24	41
	Training	3	3	1	0	1
	Employment	17	19	41	38	44
	Unemployment	9	9	9	9	2
	Other	4	6	4	6	5

Table 4.5

Comparing this to the nationally representative figures from the YCS (see table 3.6) the two surveys follow similar patterns and show, again, a notable growth over time in staying on in education.

Table 4.6 shows the descriptive statistics of main activity (main current economic status) of the BHPS respondents specifically at age 18. By age 18, the number of rising 16 respondents available across the period of the survey is reduced to 1,031, of whom, at the time of interview nearest to their 18th birthday, the majority define their main activity as being employed. Examining different non-educational outcomes allows an engagement with the non-academic routes taken by the Rising 16's. More importantly, it allows an investigation of the background characteristics of individuals in each of the categories, to further ascertain the transmission of inequality.

To clarify the point of measurement at this stage, the YCS in a school leavers study where sweeps take place in school years rather than calendar years. However, although the BHPS is a household survey, the Rising 16's are in 'synthetic cohorts' which resemble school years, as discussed in Chapter 3. Therefore, for analyses at age 18, this corresponds to 2 waves (years) after they were eligible to leave compulsory schooling at 16. This would translate to the young people in education being at the stage where they would be participating in their first year of higher/further education as interviews take place in the autumn/winter period.

Current Status at 18		
	Frequency	Percent
Employed	511	48.21
Unemployed	65	6.13
Education	391	36.89
Training/other	72	6.79
missing	21	1.98
Total	1,060	100
Source: BHPS, Rising 16's, OSM's, England and Wales, 1991-2005		

Table 4.6

Table 4.6 shows a recoded measure of labour force status using larger groups; these categories will provide the basis for the next analyses. Using multinomial logistic regression, the background effects on main activity at 18 can be assessed. The model in Table 4.7 shows that the main activity occupied by young people at age 18 is significantly affected by traditional background factors. Compared to men, women are significantly less likely to be unemployed, in training or 'other', than to be in employment at age 18. The young people originating from advantaged families (as defined on the CAMSIS scale) are significantly less likely to be unemployed or in training/other rather than employed, but the measure is not significant with regards to education. School year (age-within-school year as defined by the synthetic cohorts) is highly significant in the categories of unemployment and Government training. A plausible interpretation is that those individuals who reached the end of compulsory schooling later within their year group cohort are less likely to be in unemployment or government training than in employment as the years progress. School type, as attended by the young

person at 16, is significant but not universally so. Lastly, attainment of 5 or more A*- C grade GCSEs proves significant in inclusion in the full time education status, again highlighting the importance of age 16 GCSE attainment.

Beyond the basic measures of GCSE attainment, family background, sex and cohort, the data expose further patterns which appear to continue into the 1990s and further. Family health is still a strong indicator of disadvantage and is incorporated here at an exploratory level in a Multinomial Logistic Regression. The composite measure uses parents' health over the last 12 months, where either parent is a smoker, how many visits they paid to the GP over the last year and, lastly, whether they have a low happiness/ subjective well being score. In table 4.8, family health is negatively associated with continuation in full time education; poorer health for parents indicates a young person is less likely to participate in higher/further education.

Multinomial Logistic Regression: Labour Force Status at 18 (3 categories) (base category= employed)		
	Beta	**SE**
<u>**Education**</u>		
Family Health	-0.43*	0.19
Family CAMSIS score	-0.01	0.01
School year (1991=0)	-0.03	0.02
5+ GCSEs (A*-C)	0.84***	0.21
Grammar school at 16	-0.65*	0.32
6th form college	-0.56**	0.22
Secondary Modern	-2.51*	0.34
Independent or other	0.49	0.30
Mum Highest qual: O-levels or lower	-1.57***	0.22
Dad Highest qual: O-levels or lower	0.40*	0.20
Female	0.00	0.18
Constant	3.04***	0.71
<u>**Unemployed/other**</u>		
Family Health	-0.42	0.26
Family CAMSIS score	-0.06***	0.01
School year (1991=0)	-0.18***	0.03
5+ GCSEs (A*-C)	-0.41	0.33
Grammar school at 16	0.51	0.42
6th form college	-1.50***	0.46
Secondary Modern	-1.22***	0.32
Independent or other	1.11***	0.40
Mum Highest qual: O-levels or lower	-1.53***	0.31
Dad Highest qual: O-levels or lower	0.00	0.27
Female	-0.50*	0.25
Constant	6.33***	1.09
n=851; log likelihood=-687; Pseudo R^2 =0.19		
Source: BHPS, Rising 16's, Original Sample Members, England and Wales, 1991-2005		

Table 4.7

4.2.2 Highest qualification at age 18

In addition to the main activity pursued by the Rising 16's at age 18 it is also illuminating to study the effects on the highest qualification of the young person themselves at this stage in their lives.

The tables below show multinomial logistic regression models using highest qualification as the outcome, taking A-levels as the reference category. The models also categorise post 16 further education such as level 2 (National Qualifications Framework) access courses and those who have either gained GCSEs after the conventional year 11 period or who have remained at this level for their highest attainment.

Multinomial Logistic Regression: Highest qualification attained by age 18		
	Beta	**SE**
Higher qualification (including nursing)		
6th Form College	-0.95***	0.33
Secondary Modern	0.38	0.29
Other	-0.07	0.39
Constant	-1.36***	0.17
GCSE or lower		
Grammar	-0.05	0.31
6th Form College	-0.78***	0.18
Secondary Modern	-0.30	0.21
Other	-1.47***	0.36
Constant	0.13	0.11
No qualifications/still in education		
Other	1.95***	0.40
Constant	-2.64***	0.30
(hiqual==A Levels is the base outcome); n = 923; Log likelihood= -918; Pseudo R^2=0.07; Source: BHPS Rising 16's, Original Sample Members, England and Wales, 1991-2005		

Table 4.8

The model in table 4.8 shows that, as a predictor of highest level of attainment, school type is significant in all categories in some form. Using A-levels as the base category, those who attended a 6th form college post 16 are significantly less likely to reach a higher qualifications (National Qualification Framework Level 2 or above) than gain A-levels by age 18. Individuals from this type of institution are also significantly less likely to have only reached GCSE level qualifications by age 18, in comparison with reaching A-level. This could suggest a propensity of those choosing 6th form colleges in order to study at A-level.

Multinomial Logistic Regression: Highest Qualification by age 18		
	beta	SE
Higher Qualification		
Family Health	0.10	0.30
Family CAMSIS score	-0.01	0.01
School year (1991=0)	-0.17***	0.04
5+ GCSE (A*-C)	-2.11***	0.36
Mum's highest qual: O-levels or less	-0.93***	0.33
Dad's highest qual: O-levels or less	-0.67*	0.32
Female	0.49	0.28
Not at comprehensive school at 16	-0.18	0.28
Constant	3.29***	1.08
GCSE or less		
Family Health	-0.34	0.19
Family CAMSIS score	-0.02***	0.01
School year (1991=0)	-0.07***	0.02
5+ GCSE (A*-C)	-1.62***	0.21
Mum's highest qual: O-levels or less	-1.13***	0.22
Dad's highest qual: O-levels or less	0.15	0.21
Female	0.13	0.18
Not at comprehensive school at 16	-0.42*	0.19
Constant	4.50***	0.72
Source: BHPS, Rising 16's, Original Sample Members, England and Wales, 1991-2007 (base category= A-levels)		

Table 4.9

Table 4.9 shows a fuller multinomial logit analysis of Highest Educational Qualification at age 18 and there continues to be significant effects of the 'traditional' background factors, akin to the patterns illustrated in the models using the attainment of 5 or more A*-C GCSEs as the outcome. Gender differences cease to be significant at age 18; females are no more or less likely than males to be at a particular level of attainment. Differences do persist, however, with family stratification position. Those more advantaged individuals are more likely to have achieved A-levels by 18 than to remain with GCSEs or lower.

School type is significant in explaining a young person's presence in the GCSE or lower category; those who did not attend Comprehensive school are less likely to be at this level than to have progressed on to A-levels. Having a mother whose highest educational qualification is O-levels or less is strongly associated with gaining A-levels by 18, as opposed to NQF level 2 or lower. The same measure for fathers is associated with gaining A-levels as opposed to a college qualification. School year also remains associated with attainment and is highly significant; those young people in later cohorts are more likely to gain A-levels.

Expanding the above analysis to include household measures, as done with the earlier outcome, it can be seen that gender, family CAMSIS score and housing tenure continue to be significant in the Higher Qualification outcome at age 18 regardless of the addition of other relevant measures, as does the cohort which the young person is part of. Therefore, female Rising 16's are

more likely than their male counterparts to gain college level qualifications than A-Levels. Conversely, those who are more advantaged on the CAMSIS scale, come from a later cohort or reside in a private property at age 16 are also less likely to fall into this outcome measure. For the majority of Rising 16's who do not attain A-levels by age 18, the applicable outcome is of having attained GCSEs or lower. Gender is not a significant here, suggesting that, there are not significant differences between males and females attaining lower, or no, qualifications. Family CAMSIS score is significant in both remaining categories and illustrates that those who are advantaged on the scale are consistently more likely to have attained A-Levels than any other qualification level at age 18. Mother's highest level of qualification also proves significant when comparing A-level attainment with college qualification and GCSE or lower. Those young adults with mothers who have attained O-levels or lower are more likely to achieve A-Levels at 18.

Multinomial Logistic Regression: Highest qualification attained by age 18 (Expanded using household measures)									
Higher qual (including nursing) (n=93)	h1	h2	h3	h4	h5	h6	h7	h8	h9
Female	0.77***		0.75**	0.78***	0.70**	0.72**	0.81**	0.81**	0.92***
Family health		0.33	0.27	0.35	0.18	0.26	0.16	0.16	-0.05
Family CAMSIS score				-0.03***	-0.03**	-0.03**	-0.03***	-0.03***	-0.04***
School year (1991=0)					-0.25***	-0.25***	-0.25***	-0.25***	-0.26***
School type: not Comprehensive						-0.24	-0.14	-0.14	-0.13
Mum's highest qual: O-level or lower							-0.86**	-0.86**	-0.87**
Lived in owned home at 16									2.21**
Constant	-1.99***	-1.81***	-2.16***	-0.69	0.86	0.89	2.66**	2.66**	1.03
GCSE or lower (n=361)									
Female	0.25		0.27	0.30*	0.22	0.22	0.33	0.33	0.33
Family health		-0.32*	-0.34*	-0.20	-0.30	-0.20	-0.27	-0.27	-0.27
Family CAMSIS score				-0.04***	-0.04***	-0.04***	-0.04***	-0.04***	-0.04***
School year (1991=0)					-0.11***	-0.10***	-0.10***	-0.10***	-0.09***
School type: not Comprehensive						-0.62***	-0.42*	-0.42*	-0.45*
Mum's highest qual: O-level or lower							-0.88***	-0.88***	-0.90***
Lived in owned home at 16									0.05
Constant	-0.35***	-0.04	-0.15	1.97***	2.73***	3.03***	4.47***	4.47***	4.47***
No qualifications/still in education(n=44)									
Female	0.31		0.35	-0.31	0.58	0.48	-0.29	-0.29	0.67
Family health		-0.57	-0.59	1.68**	2.40**	2.37**	2.83**	2.83**	3.73**
Family CAMSIS score				-0.35***	-0.39***	-0.40***	-0.59***	-0.59***	-0.84***
School year (1991=0)					-0.20***	-0.20**	-0.07	-0.07	0.01
School type: not Comprehensive						-1.26**	-3.06***	-3.06***	-3.05***
Mum's highest qual: O-level or lower							0.53	0.53	0.96
Lived in owned home at 16									6.53**
Constant	-2.48***	-2.01***	-2.16***	9.44***	10.80***	11.79***	17.56***	17.56***	17.43***
N	954	954	954	954	934	930	801		
Log likelihood	-1033	-1034	-1028	-908	-834	-823			
Pseudo R^2	0.01	0.01	0.01	0.13	0.16	0.17			
Base category A-levels (n=456) Source: BHPS, Rising 16, Original Sample Members, England and Wales, 1991-2005									

Table 4.10

4.2.3 A-level attainment at age 18

The Advanced Level General Certificate of Education (A-level) has been part of the post-compulsory education system in England and Wales (and an option in Scotland) for a number of decades. A major revision took place in 2000, with the introduction of the AS Level, an intermediate qualification attainable in one year. The A-level qualification is designed as a two year course for young people between ages 16-18 and is located on the National Qualifications Framework at Level 3. It is common for those taking the qualification to study for around four subjects concurrently.

This project adopts the definitions set out by Cheung and Egerton (Shavit, Arum, & Gamoran 2007) in their study on Higher Education in Great Britain, using the National Child Development Study (NCDS) and the British Cohort Study (BCS). Higher and further education is termed 'Tertiary education' and comprises an Upper level (first degree programmes) and Lower level (postsecondary, lower than degree level courses e.g. Higher National Certificates/ Diplomas and other professional qualifications).

Figure 4.3 below illustrates the number of A level passes achieved by the 'Rising 16's' by age 18.The graph includes confidence and comparison intervals calculated using conventional regression and quasi- variance techniques (Gayle & Lambert 2007). It shows that the Rising 16's have

remained fairly consistent across the years up to 2004 when there was a

sharp dip in the number of A-levels gained. This began to rise again the

subsequent year. This may be a trend specific to the BHPS as there is no

evidence of similar anomaly in national figures.
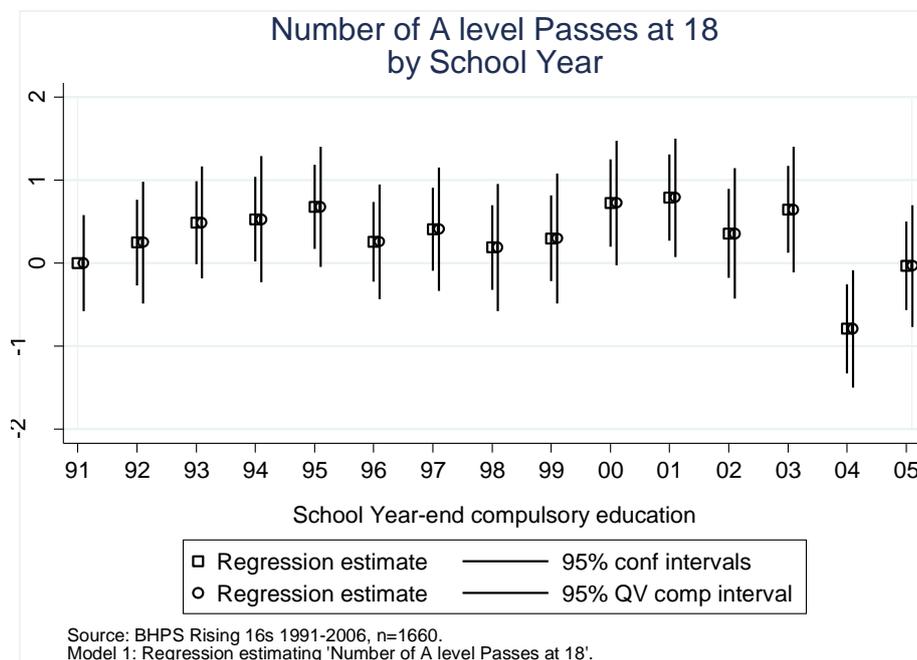
Figure 4.3

Table 4.12 show there are 1849 young people from the BHPS English

and Welsh sample of Original Sample Members who have data available on

their A-level qualifications when they were interviewed at age 18 (as

described in chapter 3, for the majority of youths their third adult interview

year at age 18 took place one year after they would have completed their A-

level courses, although some of the sample may have still been in the process

of studying, or may in the future take further, A-levels after this point of

interview).

A level2	A level			Total
	No	Yes	missing	
No	810	0	0	810
Yes	179	605	35	819
missing	0	0	220	220
Total	989	605	255	1,849

Table 4.11

The cross-tabulation in table 4.12 highlights the differences between

the two A-level measures constructed for this analysis. The first variable is

constructed solely from the new qualification responses by the young people,

2 waves after their GCSE results (wFEDXC, wFEDXM, wFEDXN). This measure

has 'no mention' coded as zero A-levels and sees 255 individuals as 'missing'.

The second measure is constructed by combining the first measure with the

highest academic qualification when the young person is 18. This shows the

problematic coding in the qualifications data and at first I use both to

determine any differences in pattern. Table 4.13 gives more descriptive

information on the characteristics of the Rising 16's at age 18 with regards to

A-level attainment.

Rising 16's Age 18: Descriptive Statistics						
		Frequency	**Percent**		**Frequency**	**Percent**
Has A-levels	0	572	55.48	**Sex** Male	562	54.51
	1	308	29.87	Female	469	45.49
	missing	151	14.65	**Year finished compulsory schooling** 1991	99	9.6
If has A-levels, how many				1992	87	8.44
	0	572	55.48	1993	32	3.1
	1	13	1.26	1994	26	2.52
	2	36	3.49	1995	64	6.21
	3	153	14.84	1996	109	10.57
	4	82	7.95	1997	69	6.69
	5	13	1.26	1998	66	6.4
	6	11	1.07	1999	51	4.95
	missing	151	14.65	2000	93	9.02
Family RGSC	1	46	4.46	2001	40	3.88
	2	388	37.63	2002	64	6.21
	3.1	167	16.2	2003	87	8.44
	3.2	233	22.6	2004	51	4.95
	4	117	11.35	2005	93	9.02
	5	23	2.23	**Total number of individuals**	1031	100
	missing	57	5.53			

Table 4.12: Descriptive statistics

The below table (table 4.13) shows the model of best fit for those Rising 16's who attained any A-levels at 18. Understandably, a huge proportion of the explanatory power of the model goes to the GCSE results from 2 years before. GCSE attainment is widely presumed to be strongly predictive of A-level attainment and, indeed, is often set as a criterion to permit A-level study at all. Its inclusion proves to be useful in showing the residual effects of school cohort (school year); gender and parental education, which are significant even after controlling for this measure of GCSE results. The results show that those who were members of the later school cohorts are more likely to achieve A-levels, and there is a gender effect whereby young women are more likely to achieve A-levels by age 18 net of other measured factors. There is no effect of parental stratification background, it is statistically significant unless parental education is incorporated, and in which case those youths with parents with low levels of overall educational attainment are more likely not to attain A-levels upon turning 18. Compared to mothers with degree level as their highest level of qualification, those whose highest level is A-level are less likely to attain A-levels themselves by this stage.

In order to illuminate these findings further, interaction effects were also fitted to the model and these improved the fit of the model to some extent. This shows that girls with high attaining mothers (A-Level and above) are less likely to achieve A-Levels than their male counterparts. Also, girls

with low attaining fathers are less likely to achieve A-level qualification by

age 18. Overall, the payoff for higher levels of mother's education was less for

girls than boys.

Logistic regression: Attainment of A-levels by age 18		
	beta	**Standard Error**
Family health	0.67*	0.29
Family CAMSIS score	-0.01	0.01
School year	0.12***	0.04
5+ GCSE(A*-C)	3.01***	0.33
Grammar school at 16	-2.72***	0.61
6th form College at 16	0.59	0.31
Secondary Modern	0.30	0.48
Independent and other	-1.38**	0.51
Mum: Higher qualification (teaching/nursing)	-0.66	0.47
A-levels	-3.20***	0.81
O-levels (and equiv.)	1.78***	0.55
Lower qualifications	-0.18	0.46
No qualifications	-1.80***	0.56
Dad: Higher qualification (teaching/nursing)	0.24	0.46
A-levels	-0.04	0.52
O-levels (and equiv.)	-0.42	0.51
Lower qualifications	-4.98***	1.14
No qualifications	-2.59***	0.67
Female	1.15***	0.27
Constant	-3.00***	1.03
(parental education base category= degree) n=766; log likelihood= -257; Pseudo R2=0.48 Source: BHPS, Rising 16, Original Sample Members, England and Wales, 1991-2005		

Table 4.13

Regression: Number of A-levels Attained (if achieving A-level) by 18				
	Mum's education	**Dad's education**	**Both parent's education**	**Both parent's education (with CAMSIS score)**
Family health	0.46***	0.37***	0.37***	0.37***
Family CAMSIS	0.01**	0.01**	0.00	
5+ GCSE(A*-C)	1.35***	1.30***	1.32***	1.32***
School year (1991=0)	-0.01	0.03*	0.01	0.01
Mum: Higher qualification (teaching/nursing)	-0.54**		-0.57**	-0.57**
A-levels	-1.14***		-1.39***	-1.40***
O-levels (and equiv.)	0.02		0.10	0.10
Lower qualifications	-0.44*		-0.33	-0.34
No qualifications	-0.81***		-0.72***	-0.72***
Dad: Higher qualification (teaching/nursing)		0.38*	0.24	0.24
A-levels		0.19	0.10	0.10
O-levels (and equiv.)		-0.28	-0.31	-0.31
Lower qualifications		-0.55*	-0.71**	-0.72**
No qualifications		-0.42	-0.74**	-0.74***
Constant	-0.03	-0.51	0.62	0.64**
N	888	878	878	878
Adjusted R^2	**0.34**	**0.34**	**0.38**	**0.38**
Source: BHPS, Rising 16's, Original Sample Members, England and Wales, 1991-2005 legend:* p<.05; ** p<.01; *** p<.001				

Table 4.14

The last table in this section uses number of A-levels as the outcome and compares parental education in four different analyses. The composite measure of family health is significantly associated with the number of A-levels a young person gains in every model, as is GCSE attainment. Parental

education is significant, net of family CAMSIS score, when mother and father

are added separately. When both measures are added together they cancel

out the effect of family CAMSIS score and the Pseudo R^2 is the same whether

CAMSIS score is present or not.

4.3.4 Eligibility for 'Tertiary' education

Acknowledging the complexity of the post compulsory education

system in England and Wales, a simpler heuristic device can be implemented

with a view to achieving explainable but meaningful findings, whereby the

qualifications obtained by youth are studied according to whether or not they

reach a level which would conventionally imply eligibility for tertiary

education. Cheung and Egerton (2007) stress the intricacy of dealing with

British 'tertiary' education due to a range of specificities involving differences

in entrance requirement between institutions and also the change in meaning

of 'eligibility' temporally; more frequently access courses and equivalency

means there are ever varied routes to each destination. Nevertheless, using a

simplified version of Cheung and Egerton's definitions (Arum, Gamoran, &

Shavit 2007), there are three levels of eligibility. Firstly, eligible for upper

tertiary education comprises those young people with three or more A-

Levels; secondly, eligible for lower tertiary education are those with two A-

Levels; and, compares them to those young people not eligible, having not

attained qualifications above one A level or National Qualifications

Framework Level 2.

Logistic Regression: Eligibility for Higher Education at 18		
	3 A-levels or more	2 A-levels or more
5+ (A*-C) GCSEs	2.52***	2.58***
Family Camsis score	0.03***	0.02**
Female	0.05	0.22
School Year (1991=0)	0.07**	0.08***
Tenure: Social renting	-0.97	-1.08
Mum's highest qualification: A-level or higher	0.74***	0.53**
Dad's highest qualification: Degree or other higher qual	-1.07***	-0.64***
Constant	-4.70***	-3.90***
N	940	940
Log likelihood	-368	-403
Pseudo R^2	0.36	0.34
Source: BHPS, Rising 16's, Original Sample Members, England and Wales, 1991-2005;Legend:* p<.05; ** p<.01; *** p<.001		

Table 4.15

Both of the models in Table 4.16 display similar findings. GCSE

attainment, school year and family CAMSIS score are significantly associated

with the eligibility of a young person for Higher education. Parental

education is also positively associated. Only gender and housing tenure

remain insignificant and this is consistent with earlier patterns of attainment

and status at 18.

Logistic Regression: Eligibility for Higher Education at 18 (gender interaction effects)		
	3 A-levels or more	2 A-levels or more
5+ (A*-C) GCSEs	2.61***	2.77***
Family Camsis score	0.03***	0.02**
School Year (1991=0)	0.08**	0.09***
Tenure: Social renting	-0.96	-1.1
Mum's highest qualification: A-level or higher	0.83**	0.99***
Female	0.57	1.67***
Mum ed*female	-0.2	-1.06**
Dad's highest qual: Degree or other higher qual	-0.79**	-0.13
Dad ed* female	-0.67	-1.23**
Constant	-4.92***	-4.65***
N	940	940
Log likelihood	-366	-392
Pseudo R^2	0.36	0.36
Source: BHPS, Rising 16's, Original Sample Members, England and Wales, 1991-2005;Legend:* p<.05; ** p<.01; *** p<.001		

Table 4.16

The models in Table 4.16 provides an exploratory look at interaction effects, again with the outcome of eligibility for 'upper level tertiary education (which Cheung & Egerton 2007 termed higher education in their research). The results of the logit are consistent with the stories of persistent inequality highlighted in the earlier investigations into educational outcomes of the Rising 16's. Again using 'traditional' markers, all but gender and tenure are highly significant in predicting whether a young person of age 18, growing up in the 1990s, will be eligible for university education. Those seen as disadvantaged on the CAMSIS stratification scale are less likely to, those whose mothers have less than A-level education are also less likely to. Having tested parental education using various constructed measures, both

categorical and binary, findings show that although there is a strong association between Mothers with an education at A-Level or above, for Fathers, the strongest association exists for those with a higher level qualification (degree or FE qualification such as teaching or nursing). Constructing an interaction variable with gender allows an assessment of whether parental education has distinct effects on different gendered offspring. In the second model, findings show that interaction effects are significant, with female children of mothers with A-level or higher and fathers with degree level or higher being less likely to fall into the lower eligibility category, than boys.

Those from later cohorts are more likely to be eligible for university at 18. Despite reasoning for a weakened predictability of 'traditional' background effects, there remains a strong association as shown with this contemporary, representative data.

4.4 Conclusions

There were two distinct aims in this chapter. The first, to construct 'synthetic cohorts' of young people from BHPS households as they come to the end of compulsory education and, either continue in education, or move into employment or other activities. We have demonstrated that this is possible and the BHPS data can reasonably be used to study aspects of growing up in Britain in the 1990s. We have demonstrated that the data can be used to analyse GCSE attainment and sensible substantive results were obtained. This was then developed further to investigate a number of

educational based outcomes that are relevant to understanding the 'youth phase' and transitions to adulthood.

The preliminary analyses of GCSE attainment provided results that are comparable to nationally representative survey data. The analysis was extended by the inclusion of more detailed parental and household measures. It is also speculated that future analyses into the investigation of relationships with and the role of, siblings (especially older siblings) will lead to a more comprehensive understanding of growing up and the youth phase. The structure of the BHPS allows data on individual young people to be linked with parental and household data. This provides extended opportunities that are not available in existing data resources such as the YCS. A higher level of data quality can also be expected in the BHPS than in the YCS, because data are collected directly from parents within the adult survey data, rather than by asking young people about their parents. In addition, standardised measurement instruments are used and well documented in the BHPS. Therefore, the household structure of the BHPS provides the potential for developing work in this area; such an analysis is implemented in Chapter 6.

The YCS is at present the largest data resource on youths growing up in the 1990s. The high level of sample attrition within this data resource sets limitations. By contrast there is comparatively low sample attrition in the

BHPS 'synthetic cohorts'. The young people in the BHPS are tracked into adult life and this opens an interesting source of data. As we have asserted, an emerging theme within the sociology of youth is the extension of the 'youth phase', and therefore data resources that allow empirical tests of theoretical claims are highly appealing.

The Millennium Cohort Study (MCS) will provide detailed empirical data on growing up in the 21st Century. There will also be a new British birth cohort survey currently planned to commence in 2012 (colloquially referred to as the 'Olympic Cohort'). The twelve year data collection aperture between cohort studies will be appropriate for many analyses. However it will be too wide for other analyses, for example when the motivation is to examine details of trends over time. Some of the restrictions relating to the YCS have been addressed in the design and data collection of the Longitudinal Study of Young People in England (LSYPE) which began in the 2004 (see Appendix 1 for timing details). This data resource is innovative because it contacted young people at a younger age, interviews both them and their parents and it will be linked with administrative and official educational data. The LSYPE data resources will support detailed analyses of the youth phase and youth transitions in the early part of the 21st Century, though at present it only tracks a single age cohort of young people.

The construction and analysis of 'synthetic cohorts' of data on Rising 16 youths in the BHPS, therefore, has more general appeal. The large overall sample size of the BHPS ensures that the number of Rising 16's is adequate at present. Moreover, with the development of UK Household Longitudinal Survey (UKHLS- Understanding Society), the number of suitable cohort members will increase substantially. Indeed, the UKHLS is expected to link with information collected for administrative purposes by education departments in England, Wales, Scotland and Northern Ireland. The information may include, for instance, national tests and formal assessments and examinations. The inclusion of high quality data from official sources would be highly beneficial for youth and educational research.

The UKHLS contains a youth questionnaire component for 10-15 year olds before they enter the adult part of the survey. This is an important development which will provide data on younger children. In the longer term, early estimates suggest that there will be around 1,000 new births each wave in the UKHLS panel. These children will ultimately mature into synthetic cohorts which will be tracked through the youth phase and into adulthood.

The second aim of the chapter, to analyse the influences of parental background and other background measures on the attainment and main activities of the Rising 16's at 16 and 18 years old. Traditional markers such

as family CAMSIS score remain significant in the outcomes of young people, yet are more associated with some routes more than others. If a young person chooses (or attains enough) to follow an academic route, measures of GCSE attainment and parental education are positively associated. However, for the young people who follow a more 'traditional' transition (moving from education to the labour market), and also the less advantaged who fail to qualify to achieve a high academic qualification by age 18, are negatively associated with family CAMSIS score and school year.

Gender

Results show that males continue to fall behind in educational attainment (Cassen & Kingdon 2007). They do less well in GCSE attainment, potentially limiting their options from then onwards. Status at 18 shows that boys are more likely to be unemployed or in training at this point which, discussed in chapter 5, is a traditional outcome. Highest qualification at this age shows less association with gender. Males are less likely to achieve college qualifications rather than A-levels compared to females but there is no significance in other outcomes. Despite this, females are more likely to achieve A-levels than males in the binary outcome measure; this is strongly associated net of all other basic measures and it is also found that an interaction effect exists in the eligibility outcome; even if they have mothers with the same A-level education or higher qualification, boys will do better than girls.

Family background

Despite arguments that the influences of family background are weakening, the results in this chapter show evidence to the contrary. At 16, GCSE attainment of 5 or more A*-C grades is strongly associated with a position of advantage using the family CAMSIS score using dominance approach (Erikson & Goldthorpe 1992b) (discussed in Chapter 2). This association becomes cancelled out by parental education, which supports arguments (Kalmijn 1994;Lampard 2007) of those who believe parental education an alternative, or possibly better, measure with which to measure the transmission of inequality.

By 18, the patterns of association show the link to CAMSIS remains; stronger for some paths of transition than others. In terms of status at 18, those from advantaged backgrounds are less likely to be categorised as unemployed or in training, relatively poorer outcomes than education or employment. Highest qualification at this age also follows this pattern. In this circumstance, CAMSIS score remains significant net of parental education and highly so, in all categories. The more advantaged young people are more likely to be qualified to A-level by 18 than any other outcome. This also transfers onto the number of A-levels gained and, accordingly, the eligibility for further or higher education at this age. Where it does not seem to have an association is in the logistic regression where the attainment of A-levels is the outcome; this suggests that a young person from an advantaged background is more likely to follow the A-level route but not to automatically gain them,

however, if they do, their background goes on to affect how well they achieve

and, therefore, their options afterwards.

Parental Education

At age 16, the measure used is a binary outcome of whether either

parent is a graduate or not. This has a positive association with GCSE

attainment (net of CAMSIS score), yet significance is lost when household

measures are added, suggesting other attributes of parental background are

more influential (for instance, household size and tenure). At 18, parental

education measures were resulting in overfit of the models and time was

spent exploring the effects of many different configurations of the highest

qualification variable. Status at 18 is significantly affected by whether mother

or fathers' qualifications exceeded O-level. This measure remains significant

in analyses of the highest qualification achieved by 18, but for mother's

education only, further evidence for including the parents individually, and

for Lampard's (2007) research on using mother's education as an alternative

to occupational status as a fairer measure. Attainment of A-levels at 18 is

influenced by the highest qualification of both parents, to some extent; the

general pattern remains that the more advanced parents are in qualification

terms, the likelier their offspring are to achieve more highly. Number of A-

levels was used as an outcome to test the effect of parental education in

combination with occupational score. Family CAMSIS score remains

significant when each parent is added individually, yet this effect is lost when

both parents are included together. The Pseudo R-squared is similar for

CAMSIS score or parent's education which suggests they have a similar

explanatory power. Lastly, different measures were found to be significant in

the models for eligibility for higher/further education. Having a mother

whose highest qualification is A-level or higher is highly significant of

eligibility, yet this association is similar for fathers who have a highest

attainment of degree or other higher qualification. This is redolent of both

parents educational position having an effect, yet mothers do not have to

have achieved as highly as fathers to influence their offspring.

Other notable associations include the pattern of school year being

associated with increasing attainment and qualification achievement as years

advance, later cohorts are more advantaged. Also, GCSE attainment of 5 or

more A*-C grades at 16 is hugely influential on outcomes at 18, both as an

indicator of a continued status in fulltime education and as one of achieving

A-Levels and eligibility. A young person's outcome at 16 is extremely

indicative of their route thereafter (Gayle, Lambert, & Murray 2009). The effect

of household measures appears weakened as the Rising 16's move beyond

GCSE attainment, yet school type remains an associated effect.

The following chapter moves beyond the educational attainment of

the Rising 16's to examine the effects of background factors on early labour

market outcomes.

Chapter 5: Studying Youth and Early Labour Market Outcomes in the 1990s

'As growing research reveals the diverging contours and the different experiences encountered by the individuals making the transition in various countries, the 'fuzzy' nature of the transition concept becomes more evident. No single definition of that concept is sufficiently well-defined to enable us to identify, in a straightforward fashion, key events delimiting the timing of the process and the individuals involved' (Couppie & Mansuy 2003: 63).

These transitions have been described with various definitions and adjectives. The proliferation in sociological youth research since the 1980s (see Chapters 2-4) has been attributed to an interest stemming from the contextual changes around youth transitions, arising from the decline in opportunities in the youth labour market and the subsequent expanse of participation in post-compulsory education (Stokes & Wyn 2007). The core thrust of this chapter is to investigate the transitions the Rising 16's youngsters experience when they make leap from education to work.

5.1 The longitudinal concept of transitions

There is understandable difficulty in defining the point of entry into the labour market. It is now widely accepted that the move from education to the labour market is 'non-linear', 'extended', 'fragmented' and, at times, involves a reversal of direction (Stokes & Wyn 2007). A clear transition from full time education to full time employment is a relatively uncommon route for young adults, and the majority of young people have a 'first job' while they are still in education (Staff & Mortimer 2007;Stokes & Wyn 2007). For many, the model of a clear transition from school to work is no longer a fair description of UK or other western labour markets (Blossfeld, Mills, & Bernardi 2006). However, Roberts (2006) retains the term 'transition', arguing that although there is not a strictly ordered route taken by most young people, at some point most young people do still 'reach destination' (2006: 263).

In this research, the term transition is used as a dynamic concept which aims to capture the process which the young people have gone, are going, and are still to go, through. In this sense, destination could take several forms, and be measured in different ways (e.g. using data on first job, current job, etc). Using longitudinal data we can investigate this 'process' and seek working definitions which capture the non-linear progression.

5.1.1 Change over time

The BHPS data used here spans the period 1991- 2007. Using longitudinal repeated-contacts data enables the capturing of changes in participation or patterns during a time when Britain's Governance swung from 18 years of Conservative rule (1979-1997), to the 1997 dawn of New Labour. It is opined that much of the New Labour policy was brought in to deal with the consequences of the previous administration. Major initiatives embraced a 'welfare to work' ideology (e.g. Pearce & Paxton 2005) such as new training initiatives (New Deal for Young People) and the introduction of the minimum wage, detailed below.

The plethora of changes came into force at a time which can be seen to impact on the Rising 16's cohort under study (births between 1975 and 1991). Largely significant was the minimum wage. The Low-Pay Commission was established as a result of the national minimum-wage legislation in 1998. In turn, from 1 April 1999 workers aged 18-21 were entitled to a minimum wage at the development rate (i.e. a lower level than the adult rate). This legislation was introduced explicitly to target poverty and social exclusion and, more recently (in 2004), has been extended to include workers aged 16 and 17. Although the timing of the introduction of the national wage policy and its focus on older young people were unlikely to have directly influenced the choices and activities of pupils as they reached the end of compulsory education, it is at least plausible that they may have affected the pay and

conditions of more recent groups of minimum-age school leavers (Gayle, Lambert, & Murray 2009). The 1975-1991 birth cohorts reached compulsory school leaving age between the years of 1991 and 2007, and these groups are ideally placed to enable the effect of change in payment and benefits legislation for young people to be explored. It can be asked whether there was a noticeable drop in employment (due to greater demands on employers), or any other dramatic shift in employment patterns, in the process of transition to the labour market for young adults following this change in policy.

Minimum-age school leavers continued to be excluded from the unemployment benefits available to older workers over the period (Child Poverty Action Group (CPAG) 1998;Mizen 2004). However, a notable example of an early New Labour policy initiative in the area of training was the New Deal for Young People (NDYP). This initiative resonated within the wider 'welfare to work' agenda (Brewer, Clark, & Wakefield 2002;Fraser 2004;Riley & Young 2001). Introduced in 1998 NDYP was aimed at older young people; the scheme aimed to provide opportunities to work, gain new skills, and get work experience for 18-24 year olds (Wilkinson 2003).

Participation was mandatory for young people claiming unemployment benefits (i.e. Jobseeker's Allowance) continuously for six months (Institute for Employment Research (IER) 1999). We might expect that the introduction of the NDYP would not have directly affected minimum-

age school leavers. However, it clearly signalled how the government aimed

to treat unemployed young people and this may, albeit indirectly, have

affected pupils' choices. For instance, a common alternative response to

unemployment is participation in education, and we can therefore ask

whether there is evidence of more educational participation amongst those

who might in earlier periods have been classified as unemployed.

5.2 Data on transitions and trends

In this analysis the same 1975-1991 birth cohort remain the sample;

however, interest now reaches beyond education and the ages of 16 and 18

which were central in the last chapter.

5.2.1 Employment Data

The British Household Panel Survey provides data annually on the

employment status of individuals. This is represented in a number of forms;

information on *current* labour market status (full- or part-time employed,

self-employed, unemployed and searching for work, retired, on maternity

leave, under family care, in fulltime education, on a government training

scheme, or something else) and the date at which that status was entered.

For those in some form of employment, data on a range of job characteristics

are available. The questionnaire also includes an account of all labour market

transitions occurring since the September of the previous year. This contains

information on type of employment (or status if out of the labour force); spell

starts and end dates, occupation, industry and the reason for leaving any jobs

(Taylor 2000). The BHPS is, therefore, a strong resource for employment

data.

5.2.2 Data Management

The analytical file was compiled by extracting annual records for

members of the 1975-1991 birth cohort across the first 17 waves of the BHPS

individual records (wINDRESP). Individual data over a selection of variables

on labour market status and work patterns at the point of interview was

used. Data from these files was merged in order to produce a 'wide format'

file showing the progression of responses for the same individuals over

multiple waves of the data. This record was also merged with a data file

containing identifiers for the 1975-1991 cohort and other fixed data about

them. Attention was restricted to members of the original 'Essex' sample of

the BHPS (original sample members and their descendants). In this way 8087

individual records from the cohort were retrieved, covering an average of

almost 8 time points of interview (see Chapter 2).

The analysis below focuses on occupational experiences in the age

range 17-25. All measures of occupation reported from year to year by the

respondents are linked with a selection of social stratification measures

based on occupations: the Goldthorpe scheme, Registrar's General scheme,

NS-SEC, Cambridge Scale and, after matching with online resources

(www.camsis.stir.ac.uk), the CAMSIS social interaction and stratification

scale. The BHPS also contains information on any additional job changes

reported by individuals between any two successive interviews, plus data on second jobs. Whilst the complications to the analysis techniques introduced by these records would have been substantial, so the analysis below is restricted to year-on-year records only.

Firstly, a variety of stratification measures were adopted so as to compare and contrast the effect as an outcome measure. Previous analyses have shown that when using categorical (ordered and not ordered), and metric measures, there are small differences in the results, as displayed in the previous chapter (Chapter 4). It is interesting to use these in order to investigate further similarities and differences. At least two measures were constructed for each occupational classification using the different employment status options, here, current job (at time of interview) and most recent job (which comprises the current job if the respondent has one, and the last job they reported, from any earlier point in time, if they do not). A typology of labour market status was used exploiting the individuals' self proclamation of their main activity (one may be in full time education but still enter a job description); full-time work versus part-time; and temporary or seasonal employment versus permanent. This variation allows a comparison of the reliability of the data and the robustness of the measure.

In terms of age profile, outcomes were first assessed at age 17; this age allows an assessment of the impact of minimum qualifications (or lack of) at the first available point since being able to enter the labour market in a full time, permanent way. As mentioned above, it is increasingly common for

young people to work part time throughout spells of education or for breaks

in education to be plugged with fulltime employment. As Stokes and Wyn

(2007) purport, 'the normative framing of the concept of transition creates

expectations that by a particular stage (and age) young people should have

achieved a particular milestone' (498). This normative pattern is, of course,

not the case, but, in order to assess changes and patterns of the current

cohort, limits must be drawn. The upper limit of 25 years old is partly due to

constraints on the sample size and how far one can go with the young people,

but is also a common standard cut off point in stratification research studying

youth labour markets (e.g. Breen 2004).

Dummy variables were constructed to represent whether an

individual is employed as their main activity and subsequently, whether they

are full-time or part-time. These can then be used alongside the measures of

stratification (based on both current and/or most recent job), as alternative

related outcome measures. Analysis was undertaken on a wide format file

merged with the records of household variables previously constructed for

the educational qualification outcomes examined in the last chapter.

Analysis focused upon regression models where the outcome measures were

of early labour market status. The year when the young person turns 16 (and

is eligible to leave compulsory schooling) is taken as a general indicator of

the respondents' age in the analysis below. By studying differences between

respondents in terms of their normal age for the BHPS wave in which they

are interviewed, we have a reliable indicator which corresponds to school

year cohort, and this is preferable to using age in years at the time of

interview since this can be influenced by variation in the date of conducting

the interview, and risks conflating ageing effects with variation in age within

a school year group.

5.3 Early Labour Market Outcomes

5.3.1: Rising 16's one year on (age 17)

'Education lays the foundations not only for entry to the labour market in

any kind of capacity but for the type of occupation entered' (Joshi & Paci 1997:

31).

Current Economic Status at age 17 (excluding missing cases)				
	Frequency (all)	Percent (all)	Percent (male)	Percent (female)
Employed/Self employed	468	25.66	23.08	28.23
Unemployed	115	6.3	4.73	7.88
Family care/maternity	24	1.32	2.53	0.11
Fulltime education	1,138	62.39	65.93	58.86
Govt training/other	79	4.33	3.74	4.92
Total	1,824	100	100	100
Source: BHPS Rising 16's, age 17, England and Wales, Essex Original Sample Households, 1991-2006				

Table 5.1

The above descriptive statistics (table 5.1) concur with the nationally

representative figures which show slightly more young women staying on in

education past 16, and a small number more men in the labour market at 17

than women (Gayle, Lambert, & Murray 2009: 38).

Logistic Regression: Influence on probability of Fulltime-Permanent Employment Status at 17		
	beta	**SE**
Family CAMSIS score	-0.02***	0.00
5+ GCSE (A*-C)	-1.41***	0.13
Female	-0.17	0.11
Constant	0.44**	0.21
n=1797; Log Likelihood: -927 (Pseudo R^2=0.10) Source: BHPS Rising 16's, age 17, England and Wales, Essex Original Sample Households, 1991-2006		

Table 5.2

The above logit shows some basic patterns of influence on the probability of individuals being employed (or self-employed) as their main economic activity at age 17. As in Table 5.1 above, the principle alternative employment status at this age is full time education, so this model primarily contrasts the chances of being in work versus being in education. An individual's GCSE results are significant in whether their status is employed one year after they finish compulsory schooling. Having the benchmark 5 or more passes at A*-C means a young person is one and a half times less likely to be in employment at age 17, and likely to be in an alternative, most likely education.

Being male is also significant though is a somewhat less influential factor (see the smaller z-statistic value). On average, young men were more likely to be employed as their main activity at 17 than females. The parental background measure, using CAMSIS and the dominance approach (see

Chapter 2 for explanation) is less significant, but still has a marginal effect: those with a higher score are less likely to be employed at this age (i.e. more likely to still be in education).

The next results look at the position of those in the labour market age 17, contingent on having a full time job at the time of the interview.

Regression: Cambridge Scale score at age 17		
	i1	i2
Female	3.56***	3.54***
Family CAMSIS score	0.01	0.01
5+ GCSE(A*-C)	1.75**	-0.53
School year(1991=0)	0.30***	0.15
5+GCSE*school year		0.31*
Social renters at age 16	-1.67	-1.61
Constant	20.71***	21.61***
N	1122	1122
Adjusted R^2	0.06	0.06
Legend:* p<.05; ** p<.01; *** p<.001 Source: BHPS Rising 16's, 1 year after entry into the study, England and Wales, Essex Original Sample Households, 1991-2006		

Table 5.3

It was found in the first model (in table 5.3) that, with the Cambridge Scale score of the Rising 16 themselves as the outcome, the strongest effect on position came from gender, with girls being likely to be placed slightly higher on the scale. School year and GCSE attainment are also strongly associated, with later cohorts and those with the benchmark 5 or more GCSEs being more likely to be in a higher position in the labour market at age 17.

The second model in table 5.3 (model i2), however, illuminates these results

further. When cohort is combined with GCSE attainment in an interaction

measure, the interaction is significant but the singular measures are no

longer. This suggests that, separately, the variables of school year and

whether a young person gains 5 or more GCSEs at 16 are only influential to

the young person's outcomes in relation to one another.

Registrar's General (fulltime) age 17		
	Frequency	**Percent**
Professional	6	1.51
Managerial/technical	14	3.52
Skilled non-manual	121	30.4
Skilled manual	119	29.9
Partly skilled occ	114	28.64
Unskilled occ	24	6.03
Total	398	100
Source: BHPS Rising 16's, age 17, England and Wales, Essex Original Sample Households, 1991-2006		

Table 5.4

257 individuals who are in the labour market at age 17 are in the

manual classification or below (table 5.4). This may be seen as a continuation

of the long tradition of male apprenticeships; regarding the NCDS 1958

group, 'from the total cohort of 600,000 16-year-olds leaving school each

year, only 120,000 ever entered apprenticeships at their peak, and only

20,000 of these were held by girls' (Bynner, Ferri, & Shephard 1997:11). On

the other hand, it may reflect the movement into manual work such as factory work or as bar staff. Furlong and Cartmel (2007) observe the changes impacting on the outcomes of young people with regards to labour market demand. With more availability of lower skilled occupations in the manufacturing industry through to the 1970s, minimum-aged, unqualified school leavers had many opportunities in working class positions (Bynner, Ferri, & Shephard 1997). As decline in this sector took hold there became more incentive to remain in education; both to avoid unemployment and to gain further skills with hopes of the more demanding jobs on offer, primarily in the service sector (Furlong & Cartmel 2007). Those young people who fail to gain at compulsory school level now have far less opportunity to find low or unskilled work.

This illustrates part of the argument put forward here that, despite claims of 'individualisation' and a weakening of traditional markers, there is no evidence that social structures have become fragmented (Furlong & Cartmel 2007: 35), in other words, that the effects of social origins have diminished. This echoes the conjecture of Beck who writes on the 'Ambivalent Social Structure' (Beck & Beck-Gernsheim 2002), and of 'Individualization as a Sharpening of Social Inequality' (46). However, these patterns need not reflect 'detraditionalisation', but could represent Furlong and Cartmel's (2007:35) suggestion, that 'the seemingly individualized 'churn' within the precarious sector of the labour market can perhaps be regarded as part of a new set of class-based experiences'.

Logistic Regression: Whether an individual is in Manual or low skilled work at age 17 (if employed)		
	beta	SE
5+ GCSE(A*-C)	-0.65**	0.27
Family CAMSIS Score	-0.02**	0.01
Male	1.47***	0.25
Constant	0.99**	0.49
n=326; Log Likelihood= -187 (Pseudo R^2=0.13); Source: BHPS Rising 16's, age 17, England and Wales, Essex Sample Households, 1991-2006		

Table 5.5

The above measure (Manual or below on the Registrar's General Scheme) is used as an outcome in the next logit (table 5.6). The table shows that males are more likely to be in manual or low skilled work than females, also that if a young person is more advantaged with regards to parental background and own educational attainment, they are less likely to fall into manual or low skilled work at age 17.

Results so far have shown that, by age 17, the outcomes of young people are already stratified to an extent. The main economic activity at this age (one year after finishing compulsory schooling and sitting GCSE exams) is influenced by attainment at 16 and this also transfers to the position within the labour market. Between the sexes there also continues to be a marked difference; males are more likely than females to have entered the labour market at 17 and are more likely to be in a position of relative disadvantage,

whether lower on the Cambridge Scale or almost one and a half times more

likely to be in manual work than the young women. Parental background

shows significance in influencing position at this stage in the offspring's early

career, and this will be tracked throughout the chapter as different ages are

considered. Lastly there is evidence of change over time within the period of

study, as cohort has a significant effect. This parallels results in the previous

chapter's analysis of GCSE results themselves, again with the later school

years appearing at an advantage (being less likely to be positioned at a low

level); however, this is also challenged in the significant findings of an

interaction between school year and GCSE attainment, which suggests the

separate effect may be artefact; they are only influential to the young

person's outcomes in conjunction with each other.

5.3.2 Early Labour Market Status at Age 23

Logistic Regression: Employment as Current Economic Status at age 23		
	beta	SE
5+GCSE(A*-C)	0.41**	0.20
Female	-0.52**	0.19
Social rented at 16	-1.13***	0.23
School year (1991=0)	-0.06*	0.03
Family CAMSIS score	-0.01	0.01
Constant	2.30***	0.39
n=828; log likelihood=-387; Pseudo R^2=0.06; Source: BHPS, Rising 16's, Original Sample Members, England and Wales, 1991-2000		

Table 5.6: Logistic Regression

Table 5.6, seen above, shows the first of the Logistic Regressions which focus on the outcome of employment being the main 'current economic activity' at age 23. This initial logistic regression comprises 828 individuals of the 1975-1983 birth cohorts; that is, the BHPS Rising 16's who have reached age 23 and have current economic status (wjbstat) data responses for the corresponding wave. For the purposes of the above model the individuals have been split into two groups of employed or self-employed at age 23, versus any other status at that age. This could be unemployed, still in full time education, or doing family care, for example. The results show that whether an individual has gained five or more A*-C GCSEs at age 16 has a significant effect on whether that person will be in employment at age 23. Sex continues to be significant, with men more likely to be in employment at

age 23 than women. Again there is evidence of change over time - the linear effect of school year shows those in later cohorts are less likely to be in employment at age 23. Unusually, however, family CAMSIS score based on the dominance approach to a parents' stratification position, does not have a significant effect here. The lack of a strong effect here could suggest that the other states in the Current Economic Status measure are both more and less advantaged.

Current Economic Status at 23		
	Frequency	**Percent**
Employed	671	54.69
Unemployed	52	4.24
Family/maternity	60	4.89
Ft education	41	3.34
Long-term sick	14	1.14
Gvt training/other	4	0.33
Missing	385	31.38
Total	1,227	100
Source: BHPS, Rising 16's, Original Sample Members, England and Wales, 1991-2000		

Table 5.7: Descriptives of independent variable

Out of the all the individuals, most are in employment as their main economic activity by this stage in their transitions. Taking account of the missing responses (which includes those who had dropped out of the survey by 23); nearly 80% are in employment, 7 years after leaving compulsory education at 16.

Logistic Regression on Current Economic Activity = Employed at age 23 (up to wave 1999)		
	beta	**SE**
5+ GCSE (A*-C)	0.06	0.23
Male	0.46**	0.22
Family Camsis Score	0.01	0.01
Turned 16 before 1995	0.62***	0.21
Constant	0.8**	0.39
n=675; Log Likelihood=-287 (Pseudo R^2=0.02); Source: BHPS Rising 15s, England and Wales, Essex Sample Households, 1991-1999		

Table 5.8: Logistic Regression up to 1999

Table 5.8 tells a similar story to the results in Table 5.6 but now without the small group of those who reached the end of their compulsory schooling after 2000. The same pattern was observed in the logistic regression, suggesting robustness to the general pattern.

Multinomial Logistic Regression: Current Economic Status at age 23		
	Beta	**SE**
Family Care (n=60)		
5+ GCSE (A*-C)	-0.94	0.5
Female	2.91***	0.76
Family CAMSIS score	0.02	0.02
Not at a Comprehensive school at 16	-0.35	0.57
Dad: Highest qual O-level or lower	0.76	0.55
Mum: Highest qual O-level or lower	0.38	0.54
Parents owned home when yp 16	-1.81***	0.45
One child in the household	0.77	0.47
2 children in the household	0.98	0.62
3 or more children	0.15	1.22
Constant	-5.32***	1.44
Education (n=41)		
5+ GCSE (A*-C)	0.47	0.51
Female	0.11	0.45
Family CAMSIS score	0.03	0.02
Not at a Comprehensive school at 16	0.43	0.47
Dad: Highest qual O-level or lower	1.22*	0.54
Mum: Highest qual O-level or lower	-0.1	0.5
Parents owned home when yp 16	0.18	0.68
One child in the household	0.04	0.51
2 children in the household	0.69	0.61
3 or more children	0.31	1.14
Constant	-5.6***	1.42
Unemployed/other (n=70)		
5+ GCSE (A*-C)	-0.65	0.42
Female	-0.29	0.37
Family CAMSIS score	0.01	0.02
Not at a Comprehensive school at 16	0.68	0.42
Dad: Highest qual O-level or lower	-0.09	0.45
Mum: Highest qual O-level or lower	0.19	0.46
Parents owned home when yp 16	-1.2**	0.45
One child in the household	-0.12	0.41
2 children in the household	-0.42	0.66
3 or more children	1.19	0.68
Constant	-1.75	1.08
(statrecode2==1. Employed is the base outcome, n=671) n=514; Log likelihood=-286; Pseudo R^2 0.14; Source: BHPS, Rising 16's, Original Sample Members, England and Wales, 1991-2000		

Table 5.10: Multinomial Logistic Regression

Clearly the interpretation of effects upon the binary outcome for being

in work at age 23 hinges upon the alternative outcome categories. A

Multinomial Logistic Regression offers a method of allowing for comparisons

between different categories of the 'Current Economic Activity' measure. The

measure is recoded here to combine the first 2 categories of employed and

self employed and also combining the similar categories of family care and

maternity leave. The smaller groups of government training, unemployment

and 'other' are also amalgamated in order to amass a larger category. Small

numbers in categories can make the results of the multinomial logistic

regression problematic, and these categories have often been used in other

comparable analyses (Furlong & Cartmel 2007).

Current Economic Status at age 23		
	Frequency	Percent
Employed	671	79.69
Family care	60	7.13
Education	41	4.87
Unemployed/other	70	8.31
Total	842	100
Source: BHPS, Rising 16's, Original Sample Members, England and Wales, 1991-1998		

Table 5.11: Descriptive characteristics (birth cohort 1975-1984)

The sample is now set as the 1975-1984 birth cohorts, those Rising

16's who have reached school leaving age between 1991-2000. Again, they

are Original Sample Members and are from English and Welsh regions only

(at time of entry into the survey).

There are 842 observations pertaining to the number of young people

who have responses at age 23. The base outcome in table 5.10 is to be

'employed' as one's current economic activity at age 23. The highlighted

results are those which are significant. The first category comprises those

committed to family care or on maternity leave at age 23. Here, sex is a highly

significant factor (with men less likely to be doing family care at this age),

together with GCSE attainment and housing tenure at 16; achieving 5 or more

GCSE passes or living in an owned home are negatively associated with being

in 'family care' at 23.

The second category of 'education' is a small proportion at this stage.

Fathers' with a low education increase the chances of young people still

participating in education here. This does not explain young people who

continue in education to graduate levels, however, the proportion within this

category is notably small.

The third category of unemployed or other shows a significance of

housing tenure again; living in an owned home at 16 positively affects a

young person avoiding unemployment, training or 'other' at age 23,

suggesting they are in one of the more prosperous categories.

Subsequent to examining the main current activities when the Rising

16's are age 23, I investigate the effects on the stratification position of those

who are in the Labour Market at these early stages. The subsequent

regression (table 5.12) uses the stratification measure of male Cambridge

Scale score at age 23.

Below are 2 graphs which show the distribution of Cambridge Scale

scores for the occupations of those Rising 16's who are in the Labour Market

as their main economic status at age 23. Firstly, Figure 5.4 shows that,

overall, the Rising 16's have a Normal distribution in terms of their

stratification at 23.
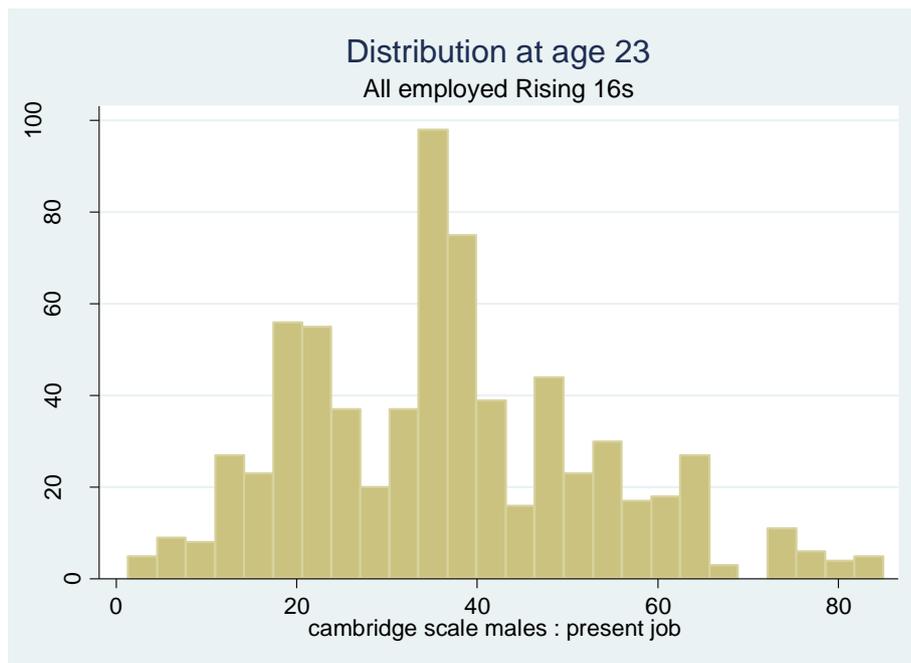
Figure 5.4

Figure 5.5 then breaks the distribution down by sexes shows the

males are slightly more skewed to the left with a concentration in 2 peaks.

The female Rising 16's appear to follow a more traditional bell curve.
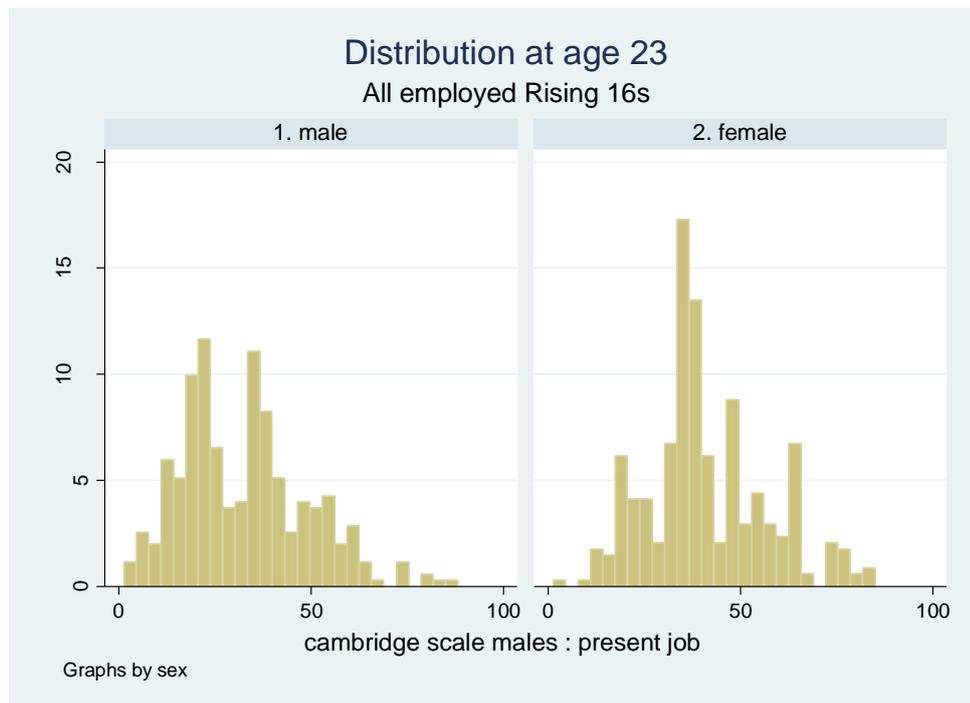
Figure 5.5: Distribution at age 23 (by sex)

In figures, in this dataset for 23 year olds, the mean Cambridge Scale score of all individuals is 36.7. For males is 32.4 (n=352; SD=16.4; min= 1.3; max=85.0); and for females, 41.1 (n=341; SD=15.8; min=1.3; max=84.8).

The regression shown in table 5.12 uses this outcome of male Cambridge Scale score at age 23 and assesses the effects of the basic explanatory variables on them. The R^2 is 0.16 and basic measures are significant. Having five or more GCSE's places an individual almost 9 points higher on the scale, whereas males are penalised, on average, by almost 7 points. Cohort is not significant in this model, suggesting no major adjustment to the occupational structure of 23 year olds over the period spanned. However parental background, measured here using the CAMSIS

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scale for parent's occupations, is significant in predicting an individual's

stratification position at age 23.

Regression of effects on position of stratification at age 23 (Cambridge Scale-Male)		
	beta	SE
5+ GCSE (A*-C)	8.54***	1.30
Male	-6.87***	1.22
Turned 16 before 1995	0.61	1.22
Family Camsis score	0.17***	0.04
Constant	27.53***	2.28
n=636; Pseudo R^2=0.16; Source: BHPS Rising 16's, aged 23, England and Wales, Essex Sample Households, 1991-2000		

Table 5.12: Regression on Stratification position at 23

To assess any interaction effects with these basic variables, the regression

was done again, separated by sex (table 5.13).

Regression of effects on position of stratification at age 23 (Cambridge Scale- Male)		
	Male	Female
5+ GCSE(A*-C)	9.64***	8.37***
School Years since 1991	0.45	0.02
Family CAMSIS score	0.19**	0.14*
Constant	16.93***	29.01***
N	350	339
Pseudo R^2	0.15	0.10
Legend:* p<.05; ** p<.01; *** p<.001 Source: BHPS, Rising 16's, Original Sample Members, England and Wales, 1991-2000		

Table 5.13

Cohort is insignificant for both sexes, whilst GCSE attainment and parental background both have independent significant effects, for both groups. A major difference between the sexes is visible in the R^2. There are 0.05 points between young men and women, implying that the male position of stratification at age 23 is better explained by prior educational attainment and family background, than is that of the females. Methodologically, this could be due to a bias towards the father's influence upon the family background measure, meaning there is less effect of comparing fathers and daughters than fathers and sons.

These results are consistent with other studies, where there is evidence of the effect of parental social background having a direct effect on early labour market outcomes, including access to employment and the nature of the first job (Smyth 2005). Müller et al. (1998) found that parental background (specifically different aspects such as social class, occupational prestige and education) influenced first job for men and women in distinct ways. The authors attribute the differences as due to gender segregation in the labour market disadvantaging daughters in contrast to their fathers; so that transmission of social position occurs less through the direct inheritance of class position for women. A stronger direct effect of parental background for males than females has also been found for Britain (Breen & Goldthorpe 2002).

Table 5.14 shows a series of regressions again using Cambridge Scale score at age 23 as the outcome. This uses the forward selection method off building up the model (discussed in Chapter 7, see Agresti & Finlay 1997). Parental education is shown as significant when entered in the model alone, however, its effect is cancelled out by parental social class. As discussed, sex is a strong indicator, as is GCSE attainment at 16, even when added to the total model in the last column.

Regression: Cambridge Scale Position at age 23								
	c1	c2	c3	c4	c5	c6	c7	c8
5+ GCSE(A*-C)	11.73***		10.52***	9.09***		8.60***		7.78***
School year(1991=0)		0.53*	0.29					0.21
Female			7.16***	7.20***		7.44***		7.53***
Family CAMSIS score				0.17***		0.15***		0.15*
Dad: Highest qual O-levels or lower					-5.27**			-2.47
Mum: Highest qual O-levels or lower					-7.15***			-3.18
Did not attend Comprehensive school						1.76		
1 child in household							1.34	
2 children in household							-2.28	
3 or more children in household							-3.68	
Constant	30.42***	34.39***	26.29***	20.05***	44.56***	20.51***	36.66***	24.54***
n	693	693	693	689	453	672	693	452
Adjusted R^2	0.12	0.01	0.17	0.18	0.08	0.18	0.00	0.20
Source: BHPS, Rising 16's, Original Sample Members, England and Wales, 1991-2000								

Table 5.14

Logistic Regression Model: Positioned Below Mean on the Cambridge Stratification Scale age 23		
	beta	SE
5+ GCSE (A*-C)	-1.07***	0.20
Family CAMSIS Score	-0.02**	0.01
Male	1.07***	0.19
Turned 16 before 1995	-0.47*	0.19
Attended Comprehensive at 16	0.10	0.24
Attended Grammar at 16	-0.15	0.40
Attended Secondary Modern at 16	-0.10	0.31
Attended Independent at 16	-0.98	0.59
Rented accommodation at 16	0.17	0.26
Lived with mum only at 16	-0.01	0.29
Lived with dad only at 16	-0.96	0.62
Lived in other household type at 16	-2.01	1.15
Either Parent Graduate when yp 16	-0.28	0.31
Constant	1.15**	0.43
n=590; Log Likelihood: -346 (Pseudo R^2=0.15); Source: BHPS Rising 16's, aged 23, England and Wales, Essex Sample Households, 1991-2000		

Table 5.15

The above logit (table 5.15) uses a binary outcome of below mean Cambridge Scale score at age 23, similar to the previous section the position of the young people at age 17. The explanatory variables are those used in the chapter 4 model looking at the effects on a young person gaining five or more GCSEs (A*-C). They are much less predictive of whether a young person will be below the mean Cambridge scale score at age 23. Significant effects (shown in bold) include whether an individual has the threshold 5+ GCSEs by the end of compulsory schooling; if they do there are less likely to find themselves positioned below the mean occupational position at age 23. Parental background is also highly significant, even at this stage in a young

person's career. Those whose family position at 16 is more advantaged in the CAMSIS scale are less likely to be below the mean Cambridge scale score. Young men are more likely than their female counterparts to be below the mean Cambridge scale score at age 23 and, surprisingly, those with a different household type to living either with both parents, or with mum or dad only, are less likely to be below the mean in the Cambridge scale, net of the effect of other explanatory variables. This counter-intuitive result suggests that there may be empirical features in the processes studied which are not well captured by the logistic regression approach. We next turn to analysing the same outcomes whilst recognising the possible presence of multi-process systems in measuring and analysing the determinants of early labour market attainment.

5.2.3 Selection models

When looking at the Cambridge Scale score of the individuals at different ages, there is a problem which occurs because many responses are missing and we anticipate that the reasons for this (i.e. not being in work) are themselves related processes to the summary model. To paraphrase Breen's question in his monograph on selection data: How do we use the sample data to estimate the relationship that holds between Cambridge Scale score and the explanatory variables in the population when we know that observability

of the Cambridge Scale measure is itself a function of explanatory variables (Breen 1996)?

Breen cites oft used, but flawed, alternatives. It is common to use ordinary least squares, to regress y using all the observations, whilst assign all those with no employment an imputed value, such as zero. Such strategies, however, have many disadvantages, as the OLS coefficients can be shown to be biased estimates of their population counterparts (Breen 1996: 1). Secondly, Breen describes the option of regressing y on the explanatory variables using *only* those values above the threshold (in this case zero). This is the method used hitherto above, but Breen describes the flaws of this approach, such as the loss of information for the jettisoned observations, but more importantly that the resulting estimates cannot 'hold good' for the population as a whole because they are based on a non-randomly selected subset.

In economics research, a common analytical approach to accounting for this selection problem is to specify the outcome process in 2 steps (i.e. as a multi-process system (see Heckman 1979;Stolzenberg & Relles 1997)). In the context of the current models, the first step involves investigating the probability of an individual being in employment at a certain age. In Breen's language, 'we model probability that y is greater than [0]…conditional on whatever set of variables we believe influence this.' (Breen 1996: 2). Furthermore, in the second step, we model the expected score in the

Cambridge Scale conditional on having an employed status, $E(y_2|y_1>0)$ where E is the expectation operator, conditional on the set of variables we believe influences this. Selection models for the combined multi-process system can be estimated in a number of software packages, but they do bring further empirical requirements and assumptions to the model process which may not be easy to address (e.g. Stolzenberg & Relles 1997).

In table 5.16 a selection model is shown using similar measures to explore the role of explanatory variables as predictors of Cambridge Scale score at age 23, controlling for selection probabilities. Sex and GCSE attainment were found to be significant predictors. School year cohort was insignificant (deeming it a good predictor of the selection equation). The results shown use a Maximum Likelihood Estimation of the Heckman selection model.

Heckman Selection Model on the Position of Stratification at age 23 (Cambridge Scale-male)		
	beta	SE
Cambridge Scale Position (male)		
5+ GCSE (A*-C)	8.29***	1.37
Male	-6.80***	1.23
Family CAMSIS score (dominance)	0.17***	0.04
Constant	29.00***	3.38
Selection model		
5+ GCSE (A*-C)	0.24**	0.09
Male	-0.07	0.08
Family CAMSIS score (dominance)	0.00	0.00
Cohort (16 before 1995)	0.35***	0.08
Constant	0.04	0.15
/athrho	-0.11	0.26
/lnsigma	2.72	0.03
rho	-0.11	0.26
sigma	15.24	0.49
lambda	-1.70	3.96
LR test of indep. eqns. (rho = 0): chi2(1) =0.14 Prob > chi 2 = 0.7036		
n=1028; censored n= 392, uncensored n=636; Log Likelihood: -3302; Source: BHPS Rising 16's, aged 23, England and Wales, Essex Sample Households, 1991-2000		

Table 5.16: Maximum Likelihood Estimation

In this model, cohort is used as an identifying variable which is used to predict the probability of selection, but not the attainment score for those in work. Surprisingly however, this regression model with sample selection suggests that the selection factor is insignificant: according to this model, the potential bias of analysing a non-randomly selected sample is not substantial,

as modelling the multi-process system does not make a difference to the results for the equation analysing attainment. We therefore have more belief in the original model predicting an individual's Cambridge Scale score at age 23 (Table 5.14). The predictors used are the binary outcomes of sex and whether or not one have 5 or more A*-C GCSE grades. Also, the CAMSIS score of the individuals' parents' using the dominance approach outlined previously. All three measures have a highly significant effect on one's Cambridge Scale Score at age 23 with those having 5 or more GCSE passes more likely to be more than 8 points higher on the stratification scale. The effect is of a similar magnitude for males, yet negative, likely to be almost 7 points lower than females on the scale at age 23.

Heckman Selection Model on the Position of Stratification at age 23 (Cambridge Scale-male)		
	beta	SE
Cambridge scale(male) position		
5+ GCSE (A*-C)	8.15***	1.49
Male	-6.76***	1.25
Family CAMSIS score (dominance)	0.17***	0.04
Constant	29.79***	4.69
Selection model		
5+ GCSE (A*-C)	0.24**	0.09
Male	-0.07	0.08
Family CAMSIS Score(dominance)	0.00	0.00
Cohort (16 before 1995)	0.34***	0.08
Constant	0.04	0.15
mills		
lambda	-2.90	6.34
rho	-0.19	
sigma	15.34	
lambda	-2.90	6.34
n=1028; censored n= 392, uncensored n=636; Log Likelihood: -3302 Source: BHPS Rising 16's, aged 23, England and Wales, Essex Sample Households, 1991-2000		

Table 5.17: Two-step

Probit models with selection		
	Model A	**Model B**
<u>**High Cambridge Score**</u>		
5+ GCSE(A*-C)	0.44**	
Family CAMSIS Score (dominance)	0.01**	0.02***
Male	-0.34**	-0.43***
Constant	-0.32	-0.34
<u>**Selection**</u>		
Cohort(16 before 1995)	0.35***	0.34***
5+ GCSE (A*-C)	0.24**	
Family CAMSIS Score (dominance)	0.00	0.01**
Male	-0.07	-0.07
Constant	0.04	-0.25
athrho constant	-0.67	-0.49
legend: * p<0.05; ** p<0.01; *** p<0.001 Model A: n=1028; censored n=392; uncensored n=636; Log Likelihood: -1072 Model B: n=1174; censored n=490; uncensored n=684; Log Likelihood: -1227 Source: BHPS Rising 16's aged23, England and Wales, Essex Sample Households, 1991-2000		

Table 5.18: Probit Models

Two further selection model formulations were considered, to provide robustness checks on the earlier model. Firstly, table 5.17 shows the two-step variant of the Heckman selection model. This is an alternative estimation algorithm, but the two models result in almost identical results. Secondly, table 5.18 shows the results from a Heckman probit model, where this time the response is binary (the variable 'High Cambridge Score' is created as a binary response for a Cambridge scale score that is above the mean of 36). The analysis above contains the results of two models. The first including the binary measure of 5 or more A*-C GCSE grades, and the second omitting this

variable. There is no real change without the GCSE variable, although it is

significant in predicting the high Cambridge scale score. Taken away,

however, the significance of being male increases in the second model, albeit

having a similar coefficient, as does the parental background measure using

CAMSIS.

The transformation of rho [atanh_rho = $1/2*\ln[(1+rho)]/(1-rho)$],

however, which can be entered as an indicator of selection effects (Breen

1996), is not showing significance in either model, reinforcing the view that

in this instance, modelling the attainment process as a multi-process system

brings with it no substantial benefits over the original regression

interpretation.

5.3 Adding in household data

Logistic Regression Model: Positioned Below Mean on the Cambridge Stratification Scale age 23 (Model of Best fit)		
	beta	SE
5+ GCSE (A*-C)	-0.96***	0.18
Family CAMSIS Score(dominance)	-0.02**	0.01
Male	0.98***	0.18
Cohort(16 before 1995)	-0.22	0.18
Other Household Type at 16	-2.2*	1.12
Independent school at 16	-0.93	0.57
Mum has a degree when yp 16	-0.85**	0.42
Constant	0.9**	0.33
n=636; Log Likelihood: -382 (Pseudo R^2=0.13) Source: BHPS Rising 16's, aged 23, England and Wales, Essex Sample Households, 1991-2000		

Table 5.19: Model of Best Fit

The model in Table 5.19 is titled 'model of best fit' as it replicates the model used in the previous chapter on the effect of GCSE attainment (Table 4.2). These are the variables which are also available in the YCS, and do not go beyond individual measures (to parental or household). It was found however, that separating out the parents makes a difference, as the effect of having graduate mothers was significant, but the same effect for fathers was not. This is supported by evidence from studies such as Lampard (1995) and Kalmijn(1994), who found that using mother's position separately, can add something to analysis that was previously missed.

'The effects of father's occupation and mother's occupation can be seen to be independent of each other and cumulative' (Lampard 1995: 724).

And furthermore:

'This effect exists for both sexes, though it is especially important in the case of female children' (Lampard 1995: 725).

Logistic Regression Model: Positioned Below Mean on the Cambridge Stratification Scale age 23(Model of Best fit (excluding those from 2000)		
	beta	SE
5+ GCSE (A*-C)	-1.06***	0.19
Family CAMSIS Score	-0.02***	0.01
Male	1.08***	0.19
Turned 16 before 1995	-0.47**	0.19
Lived in other household type at 16	-2.01	1.15
Attended Independent at 16	-0.96	0.58
Mum is a graduate when yp 16	-0.93*	0.44
Constant	1.21***	0.36
n=590; Log Likelihood: -346 (Pseudo R^2=0.15) Source: BHPS Rising 16's, aged 23, England and Wales, Essex Sample Households, 1991-1999		

Table 5.20: Logistic Regression Model of Best Fit

This model excludes the smaller group who turned 23 in 2000. This improves the R^2 by 2 points and improves significance of several measures, especially the cohort measure itself, where those turning 16 before 1995 are less likely to be positioned below the mean on the Cambridge scale at age 23.

After adding each of the parental and household measures in the manner detailed in the previous chapter (one by one, noting significance and z scores), the model in table 5.21 was constructed from the results. It shows that whether an individual's mother attended grammar or secondary modern has a significant effect on predicted attainment.

Logistic Regression Model: Positioned Below Mean on the Cambridge Stratification Scale age 23		
Model of Best fit		
	beta	SE
5+ GCSE(A*-C)	-1.03***	0.2
Family CAMSIS Score	-0.02**	0.01
Male	1.09***	0.19
Turned 16 before 1995	-0.52**	0.19
Other household type	-2.19	1.16
Attended Independent school age 16	-0.9	0.58
Mum is a graduate when yp is 16	-0.81	0.44
Mum attended Secondary Modern school	0.43**	0.2
Constant	0.96**	0.38
n=590; Log Likelihood: -344 (Pseudo R^2=0.16) Source: BHPS Rising 16's, aged 23, England and Wales, Essex Sample Households, 1991-1999		

Table 5.21

5.3.1 Two Years on – The Rising 16's at 25

Within the capabilities of the BHPS, the information for the Rising 16's at age 25 allows an exploration of further effects on the outcomes studied. Understandably, within the limits of longitudinal datasets, the response rate 9 years on from the initial entry into the survey has declined, however, it is still of an adequate size for exploratory analysis (see table 5.22).

Logistic Regression: Employed at age 25		
	beta	**SE**
5+ GCSE (A*-C)	0.79***	0.26
Male	0.79***	0.25
Family CAMSIS score	0.02*	0.01
Turned 16 before 1995	0.84***	0.24
Constant	-0.44	0.45
n=536; Log Likelihood=-220 (Pseudo R^2=0.08) Source: BHPS Rising 16's, England and Wales, Essex Sample Households, 1991-1998, aged 25 (9 years from entry into the survey)		

Table 5.22: Logistic Regression age 25

The logistic regression model in table 5.22 uses the same binary outcome of employment versus another status, this time at age 25. It comprises 536 individuals of the 1975-1988 birth cohorts; that is, the BHPS Rising 16's who have reached 25 and have current economic status (wjbstat) data responses for the corresponding wave. For the purposes of the above model the individuals have been split into two groups of employed or self-employed at age 25, versus any other status at that age. This could be unemployed, still in full time education, or doing family care, for example. The results show that whether an individual has gained five or more A*-C GCSEs at age 16 has a significantly positive effect on whether that person will be in employment at age 25; being further away from the point of GCSE qualifications has not made a vast difference. Also significant is an individual's sex, with men more likely to be in employment at age 25, and there is a similar greater likelihood that those who turned 16 before 1995

will also be in employment at that age. School years were combined into

before 1995 and after 1996 in order to create larger numbers in each of the

groups, as initial exploration with school year dummies was ineffective.

Finally, also showing as significant is family CAMSIS score based on the

dominance approach to the parents' occupation(s). The result here implies

that one is more likely to be in employment at age 25, the higher up the

CAMSIS scale ones parents are. In comparison to the analyses at age 23, there

appears to be a stronger link to background factors again by age 25.

Logistic Regression: Comparison of Employment at 23 and 25		
	Employed at 25(C)	Employed at 23(D)
5+ GCSE(A*-C)	0.79**	0.11
Male	0.79**	0.44*
Family CAMSIS score(dominance)	0.02*	0.00
Cohort (16 before 1995)	0.84***	0.59**
Constant	-0.44	0.96**
legend:* p<.05; ** p<.01; *** p<.001 Model C: n= 536; Log Likelihood=-220(Pseudo R^2=0.08) Model D: n=731; Log Likelihood=-313(Pseudo R^2=0.02) Source: BHPS Rising 16's, England and Wales, Essex Sample Households, 1991-2000		

Table 5.23

Table 5.24 shows the descriptive frequencies and percentages of the

recoded current economic status measure for individuals at age 25.

Current Economic Status at age 25 (statrecode)		
	Frequency	**Percent**
Employed/ self employed	486	48.99
Unemployed	35	3.53
Family/maternity	56	5.65
Ft education	16	1.61
Longterm sick	13	1.31
Gvt training/other	4	0.4
missing	382	38.51
Total	992	100

Table 5.24: Descriptives of independent variable

In terms of attrition, after 9 years there has been a drop to 61.5% of the original Rising 16's cohort. In terms of a panel survey, this is advantageous. When compared to a similar sample of young people in the Youth Cohort Survey, where the length of time the individual is followed is much shorter, the drop out rate is favourable.

The missing values belong to those respondents who have dropped out of the survey or who answered as non applicable.

Current Economic Status	Age 25		Age 23	
	Frequency	Percent	Frequency	Percent
Employed	486	79.67	624	79.69
Unemployed	35	5.74	49	6.26
Family care/ Maternity	56	9.18	55	7.02
Full-time education	16	2.62	38	4.85
Long-term sick	13	2.13	13	1.66
Gvt training/ other	4	0.66	4	0.51
Total	610	100	783	100

Table 5.25: Comparison of status at 23 and 25 (missing excluded)

The first multinomial logistic regression (table 5.26) uses a recode of the annual current economic status variable (wjbstat).

Table 5.25 shows clearly the breakdown of the individuals into each of the categories. Again, as with the earlier models, the outcome has been recoded to combine the first 2 categories of employed and self employed and also combining the similar categories of family care and maternity leave, and government training and 'other'. Nonetheless, the small numbers in the categories, 9 years from entry into the survey, make the results of the multinomial logistic regression problematic.

The sample is the 1975-1982 birth cohorts, those Rising 16's who have reached school leaving age between 1991-1998 and age 25 between 2000 and 2007. Again, they are Original Sample Members and are from English and Welsh regions only.

There are 610 observations pertaining to the number of young people who have responses at age 25. The base outcome is to be employed at age 25, 486 individuals are in the category combining employed and self-employed.

The first category shows that those who have five or more GCSEs (A*-C) are less likely to be unemployed at age 25, confirming the assumption that those who are more qualified, even at the stage of compulsory schooling, are less likely to succumb to unemployment at this stage in their mid 20s. Also, those who are older in the cohort (born before 1979) are also less likely to be unemployed at age 25. This implies that those who were entering the labour

market earlier than 1996 were more likely to be successful in avoiding

unemployment in their mid twenties.

The second category comprises those committed to family care or on

maternity leave at age 25. Again, those who have five or more GCSEs (A*-C)

are less likely to have family care as their main economic activity at age 25.

This could be because those who are more qualified are more likely to be in

stable employment at that age, or embarking on a career, and putting off

child bearing. The same pattern shows for those who turned 16 before 1995

being less likely to be in family care than in employment. The model suffers

from having some categories with very low numbers, as seen in Table 5.24.

Multinomial Logistic Regression Models: Economic status at 25			
Unemployed	**1**	**2**	**3**
5+ GCSE (A*-C)	-1.23**	-1.28**	-1.21**
Male	0.59	0.56	0.56
pre95 cohort		-1.03*	-1.05*
Family CAMSIS score			-0.01
Constant	-2.63***	-2.00***	-1.66*
Family/maternity			
5+ GCSE (A*-C)	-1.13**	-1.21***	-0.95*
Male	-35.91	-35.93	-38.9
pre95 cohort		-0.79*	-0.80*
Family CAMSIS score			-0.04*
Constant	-1.11***	-0.59	0.96
Ft education			
5+ GCSE (A*-C)	0.33	0.30	0.12
Male	0.61	0.60	0.58
pre95 cohort		-0.60	-0.6
Family CAMSIS score			0.02
Constant	-3.98***	-3.59***	-4.29***
Longterm sick			
5+ GCSE (A*-C)	-1.91	-2.01	-1.54
Male	-0.74	-0.80	-0.89
pre95 cohort		-1.30	-1.31
Family CAMSIS score			-0.09
Constant	-3.41***	-2.64***	0.73
Gvt training/other			
5+ GCSE (A*-C)	0.16	0.16	0.47
Male	-0.80	-0.80	-0.83
pre95 cohort		-0.05	-0.09
Family CAMSIS score			-0.05
Constant	-4.77***	-4.73***	-2.82
Legend:* p<.05; ** p<.01; *** p<.001			
Model 1: n=538; Log Likelihood=-312 (Pseudo R^2=0.12)			
Model 2: n=538; Log Likelihood=-306 (Pseudo R^2=0.14)			
Model 3: n=536; Log Likelihood=-299 (Pseudo R^2=0.15)			
Source: BHPS Rising 16's, England and Wales, Essex Sample Households, 1991-1998			

Table 5.26
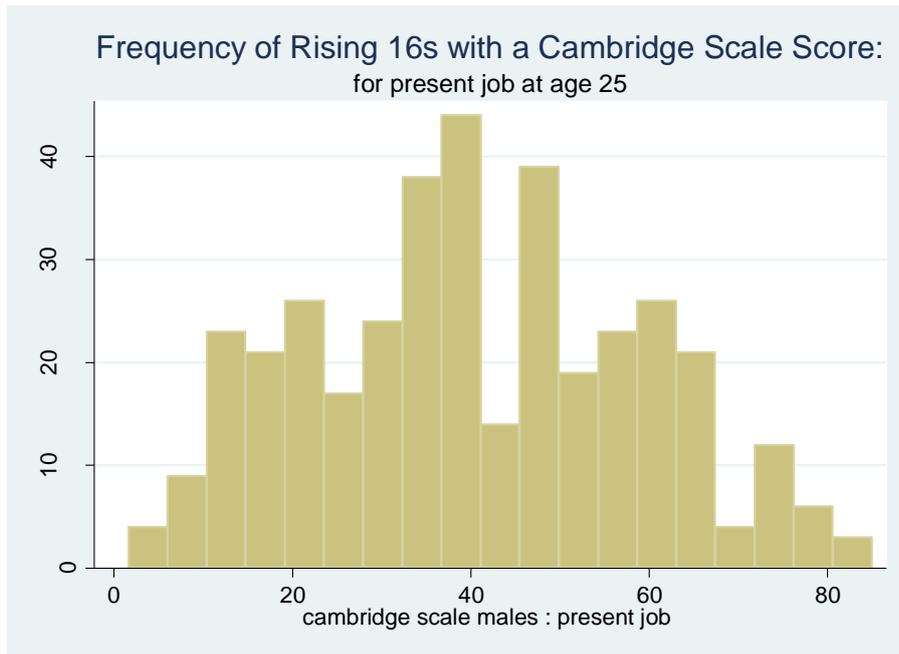
Figure 5.6
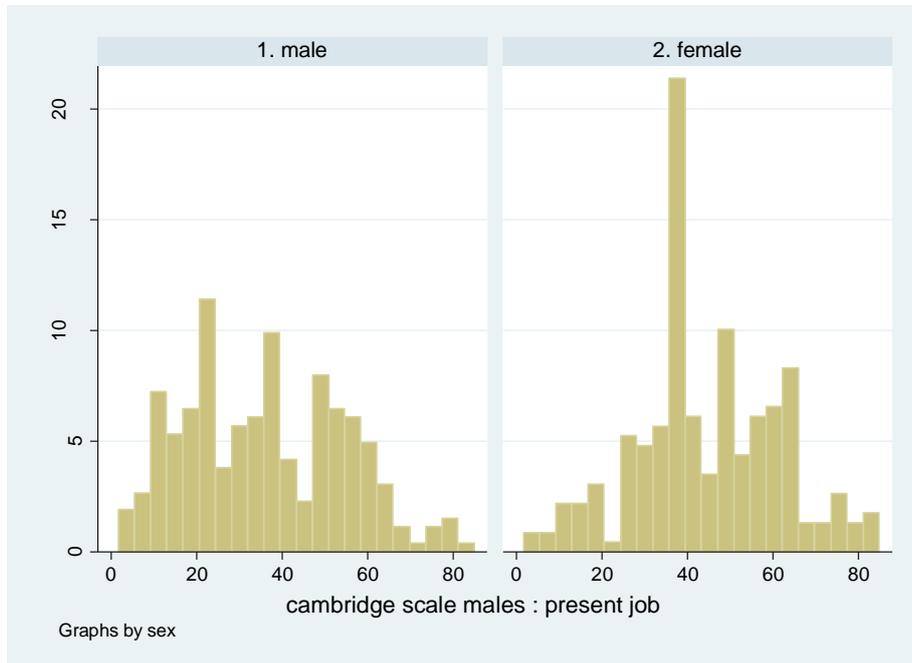
Figure 5.7: Percentage by sex

In figures, in this dataset for 25 year olds, the mean Cambridge Scale

score of all individuals is 40. Four points higher than two years earlier,

suggesting career development in possible combination with structural

change. For males, the mean Cambridge Scale score is 36.1 (n=263;

SD=18.54; min= 1.6; max=84.75); and for females, 44.6 (n=229; SD=16.8;

min=4.6; max=85.0).

The below regression in table 5.27 uses this outcome of male

Cambridge Scale score at age 25 and assesses the effects of the basic

explanatory variables on them. The R^2 is 0.21 and all basic measures are

significant. Having five or more GCSE's places an individual more than 11

points higher on the scale, whereas males are penalised by over 6 and a half

points. Cohort is also significant, unlike at age 23. Parental background,

measured again using the CAMSIS scale is highly significant in predicting an

individual's stratification position at age 25, although moving up the scale on

the family score only makes a small difference of .2 of a place on the

Cambridge Scale.

Regression of effects on position of stratification at age 25 (Cambridge Scale- male)		
	beta	SE
Male	-6.55***	1.53
5+ GCSEs (A*-C)	11.53***	1.63
Family CAMSIS Score	0.19***	0.05
Turned 16 pre 1995	-3.72*	1.64
Constant	30.04***	3.04
n=453; Pseudo R^2=0.21		
Source: BHPS Rising 16's, aged 25, England and Wales, Essex Sample Households, 1991-1998		

Table 5.27

We next disaggregate by gender. In this dataset, the mean Cambridge

Scale score of all males is 36.1 (n=263; SD=18.54; min= 1.6; max=84.8); and

for females, 44.6 (n=229; SD=16.78; min=4.6; max=85.0).

It can be seen that, in the models for male respondents, all of the basic

explanatory variables have a significant effect on the position occupied by the

Rising 16s' on the stratification scale at age 25, but only educational

attainment in GCSE is significant for females. Compulsory education has a

significant effect on the position of young people 9 years after they take these

qualifications. Those who have five or more A* - C GCSEs are likely to be

almost 11 points higher on the scale of occupational advantage. At this stage,

one's sex also appears to be highly significant to one's position of advantage

on the Cambridge Scale age 25. School year is weakly significant when

bundled together into pre and post 1995. Turning 16 before 1995 places an

individual almost 4 points lower on the male Cambridge Scale.

Regression of effects on position of stratification at age 25 (Cambridge Scale- Male)		
	Male	**Female**
5+GCSE(A*-C)	10.40***	9.51***
School year(1991=0)	1.65**	0.77
Family CAMSIS score	0.33***	0.12
Constant	8.35*	30.20***
N	194	177
Adjusted R^2	0.26	0.11
legend* p<.05; ** p<.01; *** p<.001 Source: BHPS, Rising 16, Original Sample Members, England and Wales 1991-1998		

Table 5.28

5.4 Combination of Labour Market Outcomes and Educational Attainment

The final section will expand on this outcome of early labour market transitions by incorporating educational attainment into the dependent measure; forming an outcome which reflects the combination of labour market outcomes and educational attainment.

5.4.1 Taxonomies

To define plausible and operationalisable classifications to use in this Early Labour Market outcome it is useful to consider the choices modelled by other researchers previously. This will, in turn, allow a clearer understanding of the term 'taxonomies' when working through the possible routes for the young people in the Rising 16's cohort as they traverse through early career paths in adult life.

Kate Purcell and Peter Elias developed a classification of the types of occupations graduates reside in after completing higher education. Their work looks at 1995 graduates and takes their position 7 years on from then in 2002 (Elias & Purcell 2004). The authors introduce the report on their study by contextualising the taken for granted growth in higher education in the past few decades. 'Since the 1960s, successive UK government policies have facilitated the expansion of higher education and encouraged access from a wider population, so that growing proportions of labour market

entrants have degrees' (Purcell & Elias 2004: 3). Defining a 'graduate

occupation' the research claims that 'following analysis of trends in national

employment statistics and from a detailed study of information describing

the qualifications normally required by employers for specific occupations, a

new occupational classification –SOC (HE)- was developed to enable

researchers to monitor change in the graduate labour market, distinguishing

between non-graduate employment and four categories of graduate

employment.' (Purcell & Elias 2004: 7). This element of change over time is

especially useful is this current research using longitudinal data where the

young people are ageing into occupations across a time span of 17 years

(waves of the survey).

5.4.2 Constructing the classification

The authors embarked on assigning each of the 353 unit groups of the

Standard Occupational Classification 2000 to 'graduate' or 'non-graduate'

categories. This had been attempted previously, although at a 'cruder' level

(Elias et al. 1999). Using the Labour Force Survey, McKnight 'scored'

occupation unit groups of SOC90 based on the mean level of education of

individuals classified to each group (Elias & Purcell 2004). This compounded

in a three category scheme of occupations as 'graduate, non-graduate and

'graduate-track'' (Elias & Purcell 2004). In the revised work, Purcell and Elias

move this forward using the revised SOC2000 coding and they expand the

graduate classification into four distinct categories.

The initial two categories comprise occupations which demand 'a

degree given the nature of the tasks performed'. This covers 'traditional'

graduate jobs such as solicitors, doctors, scientists and secondary teachers.

The second category intimated here is that of 'modern' graduate occupations.

These include senior management in large organisations, IT professionals

and primary school teachers (Elias & Purcell 2004). The third defined

category is 'new' graduate occupations which consist of roles such as

occupational therapists, quantity surveyors, medical radiographers, public

relations officers and management accountants. Quite a wide variety of

occupations mainly categorised by the likelihood that the graduates will have

been recruited to them in large numbers with relevant degrees. The final

classification marks the distinction between graduate and non-graduate jobs.

The line is blurred and much effort is put in deciding the assignment of unit

groups to graduate or non-graduate categories, yet there is room for

discussion. The last category is titled 'niche' occupations. The authors refer to

the naming as a reflection of 'the fact that, although the majority of those

employed in this occupational area do not have degrees, and most of the jobs

classified within the unit group do not normally require a degree, there are

undoubtedly significant groups of occupations within them that do require

degrees or provide ample scope for the exercise of degree level skills and

knowledge' (Elias & Purcell 2004: 4). Examples of the jobs in this group could

be hotel and accommodation managers and also nurses. Elias and Purcell (2004), therefore, divided 'graduate jobs' into five types ranging from the traditional' to 'niche market' (traditional graduate jobs e.g. medicine, higher education, science, 12%, Modern graduate jobs e.g. management, IT, 13%, new graduate jobs e.g. marketing, sales, 16%, Niche graduate jobs e.g. leisure and sports management, 21%, Non-graduate jobs, 38%).

The nature of 'graduateness' has been debated since the Dearing Review (The National Committee of Inquiry into Higher Education) in 1997. As this research is not solely concerned with the paths taken by those making trajectories including Higher education and graduate occupations, the categories of 'non graduate' jobs are also considered here. Subsequently, Purcell and Elias's categorisation is extended down to non-graduate early career positions. Like the above authors, this research aims to avoid the implication that these are less valued occupations in the stratification scale of advantage but that the majority of jobs classified as 'non-graduate' are those for which a 'graduate level education is inappropriate' (2004: 4).

'Graduatisation' may add another layer to this list, perhaps by including many more retail jobs. These are the jobs many students occupy part-time (or often full-time) during their years at school, college and on to university. For many students, working whilst studying traps them in a vicious circle in which it is established that- over a critical limit- term-time employment reduced degree classification (Callender 2008).

All Rising 16's age 23		
socHE (Elias and Purcell)	Frequency	Percent
Traditional grad occ	27	4.48
Modern grad occ	41	6.8
New grad occ	43	7.13
Niche grad occ	92	15.26
Non-grad occ	400	66.33
Total	**603**	**100**

Table 5.29

Degree graduate Rising 16's age 23		
socHE (Elias and Purcell)	Frequency	Percent
Traditional grad occ	15	8.57
Modern grad occ	27	15.43
New grad occ	25	14.29
Niche grad occ	30	17.14
Non-grad occ	78	44.57
Total	**175**	**100**

Table 5.30

Diploma or higher graduate Rising 16's age 23		
socHE(Elias and Purcell)	Frequency	Percent
Traditional grad occ	19	5.99
Modern grad occ	32	10.09
New grad occ	33	10.41
Niche grad occ	44	13.88
Non-grad occ	189	59.62
Total	**317**	**100**

Table 5.31

As the above tables (5.29-5.31) show, there are small sample sizes when operationalising the Elias and Purcell (2004) 'graduate occupational classification'. Illustrating the effects graphically, therefore, was the most appropriate and easily interpretable way to use these taxonomies.

Gender proportions by job type and education, BHPS at age 23

Source: BHPS, 1998-2001, adults aged 23. Bars show % female in category
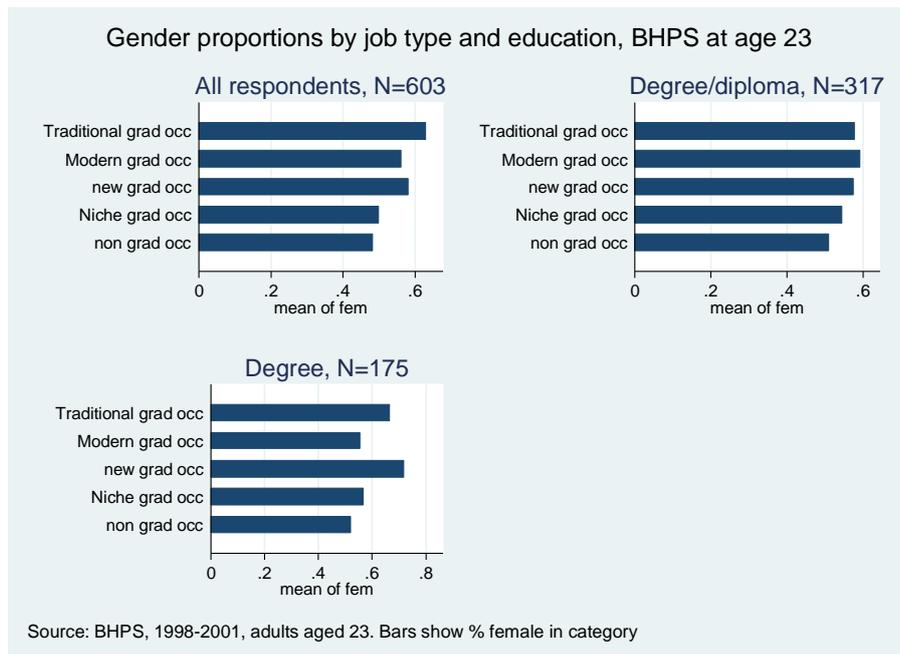
Figure 5.8

The figure above (Figure 5.8) shows 3 graphs of varying sample size illustrating gender proportions by job type and education. The first graph displays all Rising 16's for whom there is information at age 23 (n=603). Women are more likely to be in a 'graduate' job (as defined by Elias and Purcell's classification) than a non-graduate job when considering all Rising 16 respondents, whether graduate or not. The graph below that (n=175) shows the gender proportions again but only includes those Rising 16's with

a full degree level qualification. Here it can be seen that women are more

likely to be in a 'New Graduate occupation' (e.g. marketing and sales) than

any other category but are also heavily concentrated in the 'traditional

graduate occupation' category (e.g. medicine and academia). When this

sample is expanded to include those graduates with a diploma (educational

qualifications readily attained during Further Education), a slightly different

story is told; a higher proportion of women are categorised as in 'Modern

graduate jobs' (such as management and IT) but there is no large difference

overall between the classifications.

A similar assessment of job type and education was done using

parents' CAMSIS score, seen below (Figure 5.9).
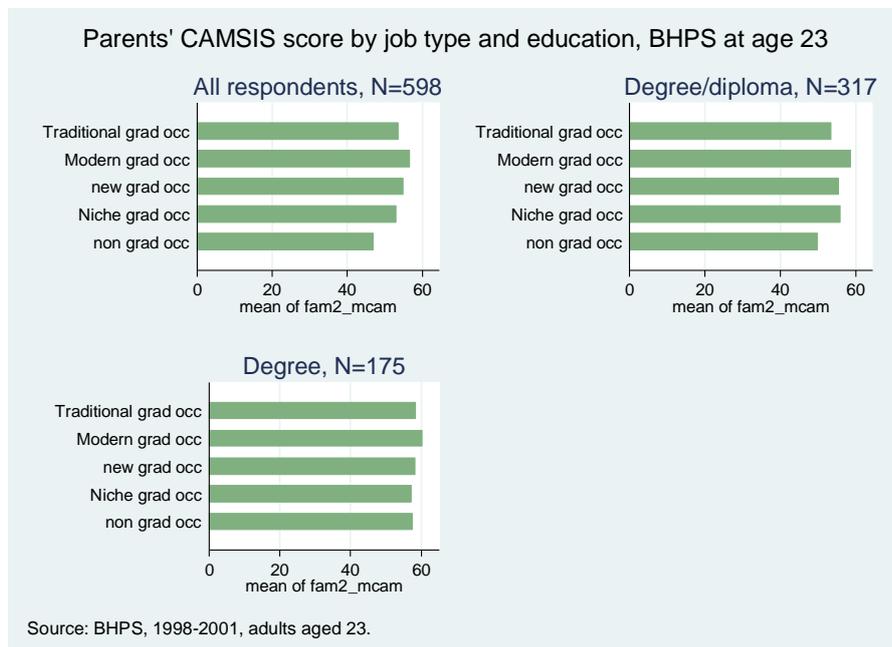
Figure 5.9

The first graph shows a slight difference between those in Non-

graduate jobs and those classified as in graduate occupations, however, this

sample includes the Rising 16's who have not gained a degree and, therefore, the difference is less illustrative of the possibility of background effects. The graph below all respondents shows all categories as fairly similar in proportion to parental background, apart from a slightly larger proportion in 'Modern graduate occupations'. This noticeable difference remains in the third graph which, again, includes those who have graduated with a diploma or higher and also shows a smaller proportion in Non-graduate occupations.

CAMSIS score by job type and education, BHPS at age 23
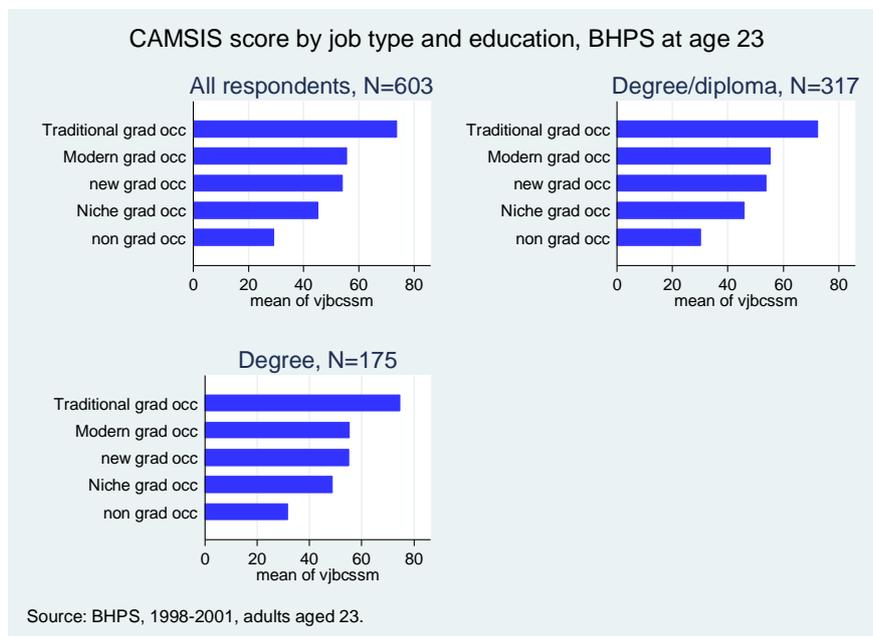
Figure 5.10

The last set of graphs (Figure 5.10) show the relationship between the individuals' CAMSIS own score at age 23 and their positioning in the Elias and Purcell classification. Regardless of the individual's status as graduate or non-graduate, being categorised as having a 'Traditional Graduate occupation' at age 23 places respondents significantly above the mean

CAMSIS score; this proportion increases when removing the non-graduates

from the considered sample.

Another taxonomy which has been used when coming up with the

structure for this research is taken from Penn and Lambert (2009). In a

chapter on 'Structural Incorporation: Education, Training and the Labour

Market', the authors use data on 16-25 year olds and graphically display

educational-occupational situation. They name 7 classifications involving

different permutations of higher education; full-time permanent job; and

level of advantage on the ISEI (Penn & Lambert 2009: 79).

5.4.3 Leaving school in the 90's: Taxonomies of choice

Regression of taxonomy(fulltime/permanent employment at age 25 with A-levels)		
	beta	SE
Female	5.24*	2.40
Family CAMSIS score	0.14	0.08
School year(1991=0)	1.00	0.62
5+ GCSE(A*-C)	12.07***	3.29
Constant	22.42***	4.92
n=174; Adjusted R^2=0.15		
Source: BHPS, Rising 16, Original Sample Members, England and Wales, 1991-1998		

Table 5.32

Table 5.32 shows the first taxonomy, using employment status

(fulltime and permanent) at age 25 for those who achieved A-levels by age

18. The results show that sex continues to be a significant indicator, as does

GCSE attainment at 16. Family CAMSIS position and cohort are not significant

here, suggesting education has overridden the previously influential

background effects by age 25.

Regression of taxonomy(fulltime/permanent employment at age 25 with no A-levels at 18)		
	beta	SE
Female	8.96***	2.39
Family CAMSIS score	0.31***	0.09
School year(1991=0)	2.00***	0.55
5+ GCSE(A*-C)	5.51*	2.59
Constant	7.22	4.65
n=166; Adjusted R^2=0.23		
Source: BHPS, Rising 16, Original Sample Members, England and Wales, 1991-1998		

Table 5.33

The second taxonomy looks at those in a similar employment status

but with no A-levels, to assess the effects on those who are less qualified.

Table 5.33 shows the findings that all basic measures are significant. Sex and

GCSE attainment, as before, are positively associated with this outcome,

however, CAMSIS score and linear cohort are also positively associated.

Those with more advantaged parents but lower qualifications at 18 are

significantly affected.

5.5 Conclusions

Throughout this chapter, the early labour market data has revealed a number of variations between the experiences of those positioned differently in terms of their social backgrounds. Between the sexes, evidence supports the vast amount of literature on females staying on later in education and young males being the more likely of the sexes to enter the labour market at an earlier age. The inclusion of school year (cohort) is often a significant additional factor, which suggests that these patterns have been changing throughout the 1990s and first half of the 2000s. Using the linear alternative holds explanatory power and confirms robustness of the patterns.

Analysis of the BHPS confirms that family background continues to play a part in the early labour market paths of young people and, indeed, shows no sign of weakening as offspring age into career trajectories see also (see also Furlong & Cartmel 2007). Children from more advantaged backgrounds still tend to begin their experiences of full time, permanent employment in a better position than their less advantaged peers. Of course, much of this is mediated by education and the likelihood that those living in families further up the stratification scale will stay on longer in education. Nonetheless, the second outcome in this chapter (The combination of labour market outcome and educational attainment) shows a similarly familiar story. Those from more disadvantaged families tend to have less educational attainment and also less progress in the labour market.

As intimated in the last chapter, ethnic minorities are not well represented in the Rising 16's cohort as these are offspring of original sample member households, representative of 1991. Although there have been boost samples to remedy the representativeness of groups of different ethnicities, these do not alter the composition of the 1971-1991 birth cohort under exploration here.

These findings contribute to the developing argument that a young person's background continues to influence their outcomes through early labour market experience and onto career trajectories. The next chapter will go on to develop the analyses of the Rising 16's educational and early labour market outcomes using the extensive family linkage possible in the BHPS before analysing the trajectories as a whole with an exploration of longitudinal paths using sequence analysis.

Chapter 6: Family Contexts: Parents, Grandparents, Siblings and Families

The aim of this chapter is to take advantage of the huge potential offered by the BHPS, in terms of access to data on an individual's other family members, and examine the effects of these relationships on the educational and early labour market outcomes of the Rising 16's. A variety of outcomes are modelled in order to evaluate the effects of grandparental stratification measures, family type, parental gender roles (and their interaction with the youths' gender) and, lastly, number of siblings and highest attainment of siblings. Because the BHPS combines detailed data on household sharers with longitudinal records on individuals and their surrounding households (e.g. Rose 2000), these analyses are able to extend beyond the possibilities available in other datasets to offer a more comprehensive view of the influences on young people's outcomes and the intergenerational transmission of inequality in Britain.

6.1 Linking outcomes to other family members

Sociologists have often regarded the family as *the principal* unit of social stratification (Heath & Payne 2000). Individuals are conceived of as contributing to, and benefiting from, a total volume of family level socio-economic resources (Erikson & Goldthorpe 1992a;Goldthorpe

1983;Goldthorpe 1984;Goode 1966;Parkin 1971), and inequalities in contribution to or distribution within the family may be neglected from analysis. However, there are several reasons why such a model might be inappropriate in contemporary analysis of social survey data. Firstly, various empirical analyses have revealed non-negligible within-family differences in domains of life relevant to social stratification inequalities (Bennett, Savage, Silva, Warde, Gayo-Cal, & Wright 2009;Lampard 2007;Sorensen 2005). Second, the 'conventional' approach to measuring family circumstances by means of the eldest male occupation is challenged by the increasing volume of female only or dual-career families across societies (Dench et al. 2002;Sorensen 2005). Lastly, the definition of the family is itself contestable, and most social surveys have only data on the immediate household context as family indicators (Dale, Arber, & Proctor 1988).

The difficulties of exploring class and social stratification presented by family level data are well recognised. Lenski (1966) advocated the 'individual', rather than just 'the family', as the only unit of stratification, suggesting that the family model is good enough in agrarian societies but not suitable for industrial ones, particularly because the situation of women has changed with industrialization:

'it is no longer feasible to view them as merely dependents of some male…[I]n short, the traditional barriers which long separated the female system of stratification from the male, and kept the former dependent on the latter, are clearly crumbling' (Lenski 1966: 403).

But whilst long recognised, the difficulties of agreeing satisfactory measures of family circumstances continue to be unresolved in many contemporary reviews (Bottero 2005;Sorensen 2005;Wright 1997).

Moreover, the nature of the relation between individuals and their families is likely to vary across contexts. Uhlenberg and Mueller (2003) write that:

'one should not discuss consequences of family context for a particular life course outcome as if those relationships were universal. The significance of any specific family environment may vary markedly across societies and across time (and even across individuals within the same family)' (2003: 124).

Sorensen (2005) asks whether the family's ability to transmit advantage to their children has been weakened, rendering the mobility regime more fluid. On the other hand, she suggests, it may be the case that the link between social origins and destinations has become stronger; where positions are being retained through the effects of parental advantage (Devine 2004). In either account, a wide range of mechanisms of family influence are highlighted, but, in survey data, the availability of information on many family background measures is often limited. The wide scope of the BHPS eases this somewhat, since its design allows access to a variety of measures for a variety of family members (Taylor, Brice, Buck, & Prentice-Lane 2009). Firstly, adult BHPS respondents are asked questions about their parents' occupational and educational outcomes, and secondly, as described

in Chapter 2, the full interview records from co-resident adults in a

respondent's household can also be used to enhance the information on

family background – a route to information that is particularly relevant for

the young cohort of Rising 16's, who are commonly interviewed or

enumerated at least once when co-resident with their parents or other

family.

As an illustration, the fact that the BHPS ordinarily allows access to

extended details on both parents' occupational circumstances and

educational backgrounds means that analysis of family origins effects can

exploit parental educational measures (although it should be acknowledged

that coverage of data on parental educational level is not as complete as it

might be since questions on this topic have only been asked in selected waves

of the survey). Using educational outcomes simplifies the problematic issue

of summarising the influence of mothers in circumstances when many

women who do not have occupational data. In contrast, Taylor (2000), uses

the BHPS job history data and employment status data from one point in

time (waves 2 and 3 respectively); missing the potential offered by the

longitudinal element of the survey which potentially gives a better picture of

their standing. Indeed, Lampard (2007) surmises that 'the extent of social

mobility within a society might largely be an 'echo' of the extent of

educational mobility' (2). In other words, investigating the transmission of

inequality may be equally well served by studying educational movement

rather than by using more traditional occupational measures.

In this analysis, I review individual and family level measures of stratification and their empirical qualities. Moreover, through access to the BHPS, the research considers various measures of fathers' and mothers' background effects, most commonly using data from both to construct a 'dominance' measure of family background (as described in Chapter 2). I am also able to consider the role of measures of members of the wider family, such as siblings and grandparents, which are not normally open to consideration in survey studies.

6.2 Educational and labour market outcomes: family effects

'[E]xamine any relatively recent book in the social sciences on 'the family' to see that it is rarely about the family as a whole. We have moved from a concern with the family as a unit to a much more complex phenomenon, a network of relationships; between members as a couple, between parents and children themselves or perhaps wider family members. For instance, as confirmed in many countries, cohabitation is more likely to arise where parents are divorced' (Kiernan 2000: 55).

The above quote highlights a change in academic thinking around the 'traditional marker' of the 'family'. The concept can no longer be taken for granted and this is central in the understanding of 'detraditionalisation'. Studies of social origins conventionally focus upon immediate family (e.g. parent/ child relations) and on within-household relations (husband/wife),

however, shifts away from the traditional 'nuclear' family together with notable theoretical literature state that a wider range of contacts are relevant (Beller 2009;Mukherjee 1954). This chapter aims to progress this argument in several ways; firstly, by examining family effects beyond those of parents to wider family members; secondly, by exploring 'family type' using contemporary data to assess the extent of weakening the traditional marker, similarly to that done in previous chapters using gender and class stratification. Lastly, this shall be further built on looking at gender roles in relation to parents and grandparents.

Family effects can now be more usefully thought about as the effect of one relation upon another. 'There might even be doubt as to what counts as family, so that the boundaries of the network of relationship we call 'the family' are fuzzy' (Brynin & Ermisch 2009). Indeed Brynin and Ermisch give the example of a young man and woman who might be described as boyfriend –girlfriend, but in cohabitation would usually be define as a 'couple'- and therefore a family. This is a typical example of how the distinction between friendship and family relationship is 'nebulous' (Spencer & Pahl 2006).

This analysis uses a household panel study which immediately raises the question of what a 'household' is. For social surveys such as the BHPS the household is defined as a group of people sharing accommodation facilities and exhibiting some degree of sharing of resources such as eating meals together (Taylor, Brice, Buck, & Prentice-Lane 2009); however, it is not

obvious that such a 'household' represents a 'traditional family'. Clearly the manner in which family boundaries are defined in an empirical analysis will influence response to the argument that 'the family' or 'a traditional family type' is no longer a significant influence on the outcomes of young people. An attractive feature of the BHPS, however, is that the fore mentioned availability of data beyond parents to wider family members means that family effects need not be restricted to inter-generational links nor intra-household connections; the administrative definition of the household does not introduce such significant impositions on the BHPS because its longitudinal format and elements of retrospective questioning allow the consideration of data from individuals who do not currently share the same household. Therefore, although the definition of the 'family' is contested, a resource such as the BHPS facilitates exploring its influences on young people from a variety of different approaches (Hill, Servais, & Solenberger 2000).

Research on the family habitually emphasises change and the concept of the decline of traditional models. This is attested primarily through change at the couple level, with the rise in divorce and cohabitation, but also in the view of some in the decline of the role of the family as a model and framework for young people (Popenoe 1988). The questions of interest are now not what is the social function of the family, how stable it is, or even what can it provide for its members but how are relationships formed and dissolved, how long do they last, and what are their effects on their members (Brynin & Ermisch 2009: 5). This is a perspective which allows the

sociological discussion to move forward beyond the decline of 'traditional markers'.

A further literature associated with the sociology of the family has long since rejected such traditional markers. Within their work on individualisation, Beck and Beck-Gernsheim (2002) argue that traditional approaches are not capable of dealing with the changes that have taken place in recent times. 'The family is multiple and combinative' (Beck & Beck-Gernsheim 2002), that is to say, made complex as the result of divorce, remarriage, or the co-residence of step parent/ step children and half siblings.

The next section examines ways in which measures of wider family context can be accessed and explored for analysis.

6.3 Methods for linking data on the family context

The BHPS offers several routes to measures of wider family context. Firstly, any resident grandparents are identified via the BHPS 'egoalt' records, but only a small number of individuals can have such data mapped onto their records. However, due to the nature of the BHPS interview questions, just as the young people are asked about their parents, their parents are asked to relay information about their own parents' backgrounds (whether still resident or not), covering measures of their parents' highest educational attainment, and questions on the occupations that their parents (i.e. the respondents' grandparents) had when they were aged 14 (i.e., when the respondents' grandparents would typically be aged 35-50). A summary of

the socio-economic data available on grandparents through this link is

presented in table 6.1, below. We see that between one third and three

quarters of the sample of Rising 16's can be linked to the occupation of their

different potential grandparents through this route.

Number of Observations: SOC codes of grandparents (including frequency of missing data)					
	Observations (missing cases)	Mean	Standard Deviation	Minimum	Maximum
Maternal Grandfather	1863(.=515)	568.73	269.22	103	999
Paternal Grandfather	1303(.=1075)	561.71	269.72	102	999
Maternal Grandmother	1229(.=1149)	642.38	247.71	110	999
Paternal Grandmother	676(.=1702)	624.19	249.54	139	999
Any grandparent	2161(.=217)	570.42	269.22	102	999
Source: BHPS Rising 16, Original Sample Members, England and Wales, 1991-2007					

Table 6.1

Secondly, data on co-resident siblings is also available in the BHPS,

again identifiable in the 'egoalt' records.

Number of co-resident siblings ever identified for individual Rising 16, waves A-Q		
	Frequency	**Percent**
1	979	44.93
2	720	33.04
3	308	14.13
4	76	3.49
5	54	2.48
6	19	0.87
7	11	0.50
8	1	0.05
9	10	0.46
11	1	0.05
Total	2,179	100

Table 6.2

Table 6.2 shows the number of ever co-resident siblings for the Rising 16's cohort (the number who at any stage in the survey have been co-resident with the respondent which may not equate to the actual number of siblings). Measures used to operationalise sibling effects include a measure of the highest qualification attained and highest status attained during the BHPS lifetime. Also, exploratory analysis is done on whether the number of siblings in the family may have an effect on the attainment of the Rising 16.

6.3.1 Grandparental effects

Few previous analyses have considered grandparental effects on outcomes. Mukherjee (1954) examined three generations of British families in order to assess patterns of inter-generational changes. Measures of the job of the paternal grandfather/father-in-law; father/husband; eldest male son

(266-67) in two separate samples were used, separating male and female individuals. He found that an increase in status from the grandfather's generation to father's resulted in a decline in status from father to son. Conversely, if status declines from grandfather to father, it is likely to increase from father to son; there is a negative association across the three generations. Despite the interesting nature of these findings there is very little similar analysis of this using British data.

Ridge (1974) also measured and analysed 3rd generational effects on the same data, but found limited effect, writing that 'the effective 'length' of the family is two generations' (1974: 70).

Revisiting these analyses, this research is attempting to take account of social origins effects for young adults that should extend beyond data on parents. It is, for instance, conceivable that the combined impact of recent structural and demographic changes have increased the importance of wider family relations.

6.3.1.1 GCSE Attainment and grandparental influences

Logistic Regression: Attaining 5+ GCSEs(A*-C) (effects of grandparents Cambridge Scale score net of parents CAMSIS)						
	1	2	3	4	5	6
Family CAMSIS score	0.04***	0.04***	0.04***	0.05***	0.04***	0.04***
Maternal Grandfather	0.01***					0.03**
Paternal Grandfather		0.02***				0.01
Maternal Grandmother			0.01**			0.02
Paternal Grandmother				0.01		0.00
Any Grandparent (highest score)					0.01***	
Constant	-2.42***	-2.43***	-2.43***	-2.60***	-2.48***	-2.98***
N	1842	1291	1200	653	2144	274
Log likelihood	-1167	-808	-769	-403	-1359	-162
Pseudo R^2	0.08	0.09	0.08	0.10	0.09	0.14
legend: *p<.05; ** p<.01; *** p<.001 Source: BHPS, Rising 16's, Original Sample Members, England and Wales, 1991-2007						

Table 6.3

Table 6.3 provides the outputs of logistic regressions used to
summarize the relationship between grandparental occupations and GCSE
attainment (net of parental CAMSIS score), and to explore the combined
effect of all measures. The outcome of attaining 5 or more A*-C grade GCSEs
is modelled using parental effects as measured by CAMSIS and grandparental
effects as measured by the Cambridge Scale score for their occupation
(stratification scales are described in Chapter 2). Looked at separately, each
of the Cambridge Scale Scores of the Grandfathers are highly significant

(p<.001) in terms of the young person attaining 5 or more A-C GCSEs (net of parental effects, which remain highly significant throughout). Likewise, the measure constructed to allow for the highest Cambridge Scale score of 'any available' grandparent shows as highly significant. Maternal Grandmother also has a significant effect (at p<.01) net of parental CAMSIS score, however, paternal grandmother has no significance above parental background; suggesting all family effect is mopped up by the parental CAMSIS measure. There are a varied number of observations in the models, due to differences in the volume of available data on the grandparents, and the Pseudo R^2 varies only very slightly between models. Notably, in model 6 where all the measures are combined the effects of all the measure lose significance, except paternal grandmother. The effects of paternal grandfather are significant to p<.01.

The coefficients show that the more advantaged the grandparent (excluding paternal grandmother) the more likely the young person is to attain 5 or more GCSEs at A*-C, net of parent's position. Adding in all the grandparents together reduces the sample size considerably; excluding cases with missing data in a manner that is very likely to be non-random (being a function of the employment status of the grandparents at the time their children were 14, plus the residence of the relevant parent themselves). Nevertheless it is interesting to note the significance of the effects of grandparents on the outcome of attaining 5 or more GCSEs at A*-C level.

Logistic Regression: Attaining 5 or more GCSEs (A*-C)		
	beta	SE
Female	-0.14	0.41
Year finished compulsory schooling	0.13*	0.06
Family CAMSIS Score (dominance approach)	0.01	0.02
Grammar at 16	0.81	1.05
6th form college	0.28	0.60
Independent	-1.46	1.59
Secondary Modern	-0.60	0.55
Other	-0.50	0.76
Mum a graduate when young person 16	-0.23	0.88
Social Rent	-2.55*	1.08
Other household type	1.32	1.61
More than 3 children in the hhld	2.79*	1.36
More than 3 people of working age in hhld	1.04**	0.42
Mum's age when yp 16	0.09	0.06
Number of rooms 4-6	-0.05	2.53
Number of rooms 7-15	0.27	2.60
Mum: Grammar	1.77	0.95
Mum: 6th form college	0.94	2.00
Mum: Independent	1.02*	0.60
Mum: Other school type	0.87	1.06
Dad: Grammar	-0.60	1.03
Dad: 6th form college	-3.53	2.12
Dad: Independent	2.71	2.43
Dad: Secondary Modern	-0.28	0.52
Dad: Technical	-0.60	1.39
Dad: Other	0.32	1.09
Mum works when yp 16	0.70	0.65
Semi detached house	0.16	0.58
End Terraced	-1.81	1.62
Terraced	-0.11	0.68
Maternal grandfather CS	0.04*	0.02
Paternal grandfather CS	0.03	0.02
Maternal grandmother CS	0.00	0.02
Paternal grandmother CS	-0.03	0.02
Constant	-7.90*	4.13

n= 181; Log Likelihood: -88; Pseudo R^2=0.29 Source: BHPS Rising 16's, Original Sample Members, England and Wales, 1991-2007

Table 6.4

In table 6.4, grandparental measures of occupational advantage are then added to the previous model of best fit (Chapter 4). Using casewise deletion, this reduces the sample size dramatically, but continues to suggest a persistent link from maternal grandfather, despite the addition of numerous other factors. This could reinforce conventional views, that is to say, the maternal grandfather effect might simply be reflecting that a mother's influence on her child's attainment is better measured by her own father's job than by her own economic characteristics. However, the pattern is also consistent with the existence of an unbroken effect beyond parental background to grandparental background, specifically maternal grandfather, which continues to have a significant effect even after controlling for parental level measures. The interpretation of grandparental effects net of all the other measures of social backgrounds included in the model is of course difficult, but at a minimum, these patterns suggest that measures of grandparental properties have the potential to add some further explanation to models of educational attainment, over and above measures based upon parental characteristics.

Looking at the positions of grandparents separately has the advantage of picking up any effects specific to a particular maternal or paternal relationship with the young adult. However, as the numbers are relatively low, it was decided to construct further measures to maximise the potential of the grandparent data. Table 6.5 includes the maximum occupational score

of ANY grandparent using Cambridge Scale, so this is the highest position

across all possible grandparent relatives. It is significant (p<.001) along with

the other background factors, including parental occupation, in explaining

the attainment of five or more GCSEs (A*-C) at age 16.

Logistic Regression: Attaining 5 or more GCSEs (A*-C) using highest occupation of any grandparental measure of stratification (Cambridge Scale)		
	beta	Std. Err.
Female	0.38***	0.09
Family CAMSIS score	0.04***	0.00
Highest occupation of any grandparent (CS)	0.03***	0.00
Date of birth	0.10***	0.02
Constant	-3.18***	0.18
n= 2695; Log Likelihood: -1584; Pseudo R^2=0.14 Source: BHPS Rising 16's, Original Sample Members, England and Wales, 1991-2007		

Table 6.5

The alternative also explored was using the average Cambridge Scale

score of ANY grandparent. Shown below (table 6.6), the results are

essentially identical.

Logistic Regression: Attaining 5 or more GCSEs (A*-C) using average occupation of any grandparental measure of stratification (Cambridge Scale)		
	beta	Std. Err.
Female	0.38***	0.09
Family CAMSIS score	0.04***	0.00
Average occupation of any grandparent(CS)	0.03***	0.00
Date of birth (1975=0)	0.09***	0.02
Constant	-3.10***	0.18
n= 2695; Log Likelihood: -1575; Pseudo R^2=0.14 Source: BHPS Rising 16's, Original Sample Members, England and Wales, 1991-2007		

Table 6.6

The final table (6.7) in this section on attainment at age 16 displays 2

models including further measures already investigated earlier in the

chapter. Here, the effect of maximum grandparental occupation remains

consistent regardless of the addition of parental CAMSIS score.

Logistic Regression: Attaining 5+ GCSEs(A*-C)(effects of maximum grandparents Cambridge Scale score net of parents CAMSIS)		
	G1	G2
Female	0.33***	0.35***
Rented accomm at 16	-0.61***	-0.43***
Year of birth (1975=0)	0.09***	0.08***
Grammar school at 16	0.63***	0.51**
Independent school at 16	1.37***	1.16***
Secondary Modern at 16	-0.72***	-0.74***
Mum only household at 16	0.18	0.12
Dad only household at 16	-1.21***	-1.32***
Other household type	0.34	0.17
Either parent a graduate	1.10***	0.79***
Maximum occupational score of any grandparent	0.03***	0.03***
Family CAMSIS score		0.03***
Constant	-1.35***	-2.41***
N	2694	2684
Log likelihood	-1559	-1518
R^2	0.14	0.16
Legend:* p<.05; ** p<.01;*** p<.001		

Table 6.7

6.3.1.2 A-level attainment at 18 and grandparental effects

Following Chapter 4, we now turn to a second educational attainment

outcome, advancing forward two years after the Rising 16's have come to the

end of compulsory schooling to the year they turn 18 and potentially achieve

A-levels (level 3 of the National Qualifications framework as described

previously). The descriptives in table 6.4 show there are 1849 young people

from the English and Welsh, Original Sample Members who have available

data at age 18.

	A-level			
	No	**Yes**	**missing**	**Total**
No	810	0	0	810
Yes	179	605	35	819
missing	0	0	220	220
Total	989	605	255	1,849

A-level2 (row label for No / Yes / missing rows)

Table 6.8

The cross-tabulation in table 6.8 highlights the subtle differences

between the two A level measures constructed for Chapter 4's analyses. In

reminder, the first variable (Alevel) is constructed solely from the new

qualification responses by the young people, 2 waves after their GCSE results

(wFEDXC, wFEDXM, wFEDXN). This codes the measure with 'no mention' as

zero A-levels and, therefore, sees 255 individuals as 'missing'. The second

measure (Alevel2) is constructed by combining the first measure with the

highest academic qualification when the young person is 18. This measure

has less missing data, but also attributes A-levels to a number of respondents

who did not report getting A-levels during their school years. This shows the

problematic coding in the qualifications data; as a robustness check I used

both measures to determine any differences in pattern, but none were found.

Descriptives age 18		Frequency	Percent
BHPS wave	**1991**	109	5.90
	1992	119	6.44
	1993	110	5.95
	1994	120	6.49
	1995	112	6.06
	1996	126	6.81
	1997	116	6.27
	1998	113	6.11
	1999	150	8.11
	2000	123	6.65
	2001	122	6.60
	2002	139	7.52
	2003	149	8.06
	2004	142	7.68
	2005	99	5.35
Sex	**Male**	912	49.32
	Female	937	50.68
Family RGSC (dominancy approach)	**1**	110	5.95
	2	645	34.88
	3.1	285	15.41
	3.2	385	20.82
	4	236	12.76
	5	50	2.70
	missing	138	7.46
Measure 1: A level	**0**	989	53.49
	1	605	32.72
	missing	255	13.79
Measure 2: A level2	**0**	810	43.81
	1	819	44.29
	missing	220	11.9
Total individuals		1,849	100

Table 6.9: Descriptive statistics

Logistic Regression: Attaining 1 or more A-levels (effects of grandparents)					
	8	9	10	11	12
Family CAMSIS Score	0.05***	0.05***	0.05***	0.05***	0.04***
Maternal Grandfather	0.01				-0.01
Paternal Grandfather		0.03***			0.02***
Maternal Grandmother			0.03***		0.03***
Paternal Grandmother				0.03***	0.02**
Constant	-3.56***	-3.86***	-3.82***	-3.96***	-4.22***
N	880	869	840	861	828
Log likelihood	-501	-479	-463	-468	-435
Pseudo R^2	0.12	0.15	0.14	0.16	0.19
Source: BHPS Rising 16's, Original Sample Members, England and Wales, 1991-2005 legend:* p<.05; ** p<.01; *** p<.001					

Table 6.10

The above table (6.10) shows each of the grandparent measures (in Cambridge Scale) over and above the influence of the parental level family stratification measure (CAMSIS score using the dominance approach), firstly as separate explanatory measures for the attainment of A-levels then, finally, with all four possible measures included together. All but one of the measures is significant both when added separately and with all others. Model 12 shows the R^2 rose to 0.19.

Despite the focus so far on academic attainment, the research as a whole is interested in the trajectories of young people regardless of the type of route followed. With this in mind, other outcomes were constructed for the Rising 16's at age 18. Tables 6.11 and 6.12 below show influences on the highest qualification. Taking A-levels as the reference category, the multinomial logistic regressions compare influences on having 3 levels of

education in contrast to A-level qualifications. These are having a higher or

post 16 further education such as level 2 (national qualifications framework)

access courses; having either gained GCSEs after the conventional Year 11

period or who have remained at this level for their highest attainment.

6.3.1.3 Attainment by 18 and grandparental effects

Multinomial Logistic Regression: Highest qualification attained by age 18 (effects of grandparents one-by-one)					
	13	14	15	16	17
Higher qualification(n=92)					
Family CAMSIS score	-0.03**	-0.03**	-0.02**	-0.03**	-0.02*
Maternal Grandfather	0.00				0.00
Paternal Grandfather		0.00			0.00
Maternal Grandmother			0.00		0.00
Paternal Grandmother				0.00	0.00
Constant	-0.27	-0.29	-0.28	-0.24	-0.30
GCSE or lower(n=359)					
Family CAMSIS score	-0.04***	-0.04***	-0.04***	-0.04***	-0.04***
Maternal Grandfather	0.00				0.00
Paternal Grandfather		-0.01			-0.02***
Maternal Grandmother			-0.01		0.00
Paternal Grandmother				0.01	0.02***
Constant	1.93***	1.99***	1.91***	1.88***	1.81***
No qualifications/in education(n=33)					
Family CAMSIS score	-0.25***	-0.46***	-0.24***	-0.40***	-0.51***
Maternal Grandfather	0.01				-0.02
Paternal Grandfather		0.11***			0.09**
Maternal Grandmother			-0.02		0.00
Paternal Grandmother				0.11***	0.05
Constant	6.32***	10.06***	7.09***	8.64***	11.37***
N	927	916	866	887	854
Log likelihood	-896	-860	-851	-851	-807
Pseudo R^2	0.10	0.12	0.09	0.11	0.13
legend:* p<.05; ** p<.01; *** p<.001 (Base category= A Levels, n=443) Source: BHPS, Rising 16's, Original Sample Members, England and Wales, 1991-2005					

Table 6.11

Above, table 6.11 shows the results of a multinomial logistic

regression using highest educational attainment at 18 as the outcome. Once

again, each grandparental measure (Cambridge Scale) is added separately

and all but paternal grandmother proves significant in the contrast with the

'GCSE or lower' outcome; all showing that the more advantaged the

grandparents' position, the less likely the Rising 16 is to have only attain

GCSE level or lower rather than A-levels by age 18. Maternal Grandmother's

Cambridge Scale score also provides a significant explanation in terms of

young people with more advantaged maternal grandmothers being less likely

to fall into the no qualifications outcome rather than that of A-levels.

Multinomial Logistic Regression: Highest qualification attained by age 18 (effects of all grandparents)		
	beta	**SE**
Higher qualifications (including nursing)		
Maternal Grandfather	-0.01	0.01
Paternal Grandfather	0.00	0.01
Maternal Grandmother	0.00	0.01
Paternal Grandmother	0.00	0.01
Constant	-1.21***	0.27
GCSE or lower		
Maternal Grandfather	-0.01*	0.01
Paternal Grandfather	-0.03***	0.01
Maternal Grandmother	0.00	0.01
Paternal Grandmother	0.02***	0.01
Constant	0.33	0.18
No qualifications/ still at school		
Maternal Grandfather	0.00	0.01
Paternal Grandfather	0.01	0.01
Maternal Grandmother	-0.06***	0.02
Paternal Grandmother	0.00	0.02
Constant	-1.28**	0.46
n= 854; log likelihood= -898; Pseudo R^2=0.03 (A Levels=base outcome) Source: BHPS Rising 16's, Original Sample Members, England and Wales, 1991-2005		

Table 6.12

Model 18 (table 6.12) incorporates all of the grandparental measures from the previous table and includes them all at once for the same outcome. The pattern remains as above; only the significance of the maternal grandmother in the GCSE or lower outcome is no longer shown to be significant. The R^2 continues to be low but, nonetheless, it suggests a significant influence of grandparental background on the outcomes of young people at age 18.

6.3.1.4 Early Labour Market outcomes and grandparental effects

Uhlenberg and Mueller (2003) argue that the work and status

attainment of young adults *are* influenced by family background factors, but

only *through* educational attainment. Nonetheless, as shown in chapter 5,

there are significant background factors which contribute to the early labour

market positions of young people. We next assess the extent to which wider

family background may be associated with these outcomes, net of the effects

of educational attainment.

Main Economic Status at age 17

Logistic regression: Having fulltime, permanent employment as main economic status at age 17 (effects of grandparents backgrounds)					
	19	20	21	22	23
Family CAMSIS score	-0.03***	-0.03***	-0.03***	-0.02**	-0.02
Maternal grandfather	-0.02***				-0.01
Paternal grandfather		-0.03***			-0.01
Maternal grandmother			-0.02***		-0.01
Paternal grandmother				-0.04***	-0.02
Constant	0.80***	0.97***	0.97***	1.27***	1.45*
N	1451	1047	937	523	225
Log likelihood	-780	-550	-531	-290	-132
Pseudo R^2	0.05	0.08	0.05	0.08	0.08
Source: BHPS, Rising 16's, Original Sample Members, England and Wales, 1991-2006 legend:* $p<.05$; ** $p<.01$; *** $p<.001$					

Table 6.13

Beginning with 'main economic status' at age 17 as the outcome, the

findings of the logistic regressions shown in table 6.13 suggest that, once

again, the stratification position of a young person's grandparents

(Cambridge Scale) is influential on their status in terms of being in fulltime,

permanent employment at age 17, net of parental CAMSIS score. However,

there is a difference this time in that when all the measures are incorporated,

they are no longer significant.

Main Economic Status at age 23

Logistic regression: Having fulltime, permanent employment as main economic status at age 23 (effects of grandparents backgrounds)					
	24	25	26	27	28
Family CAMSIS score	0.01	0.00	-0.01	0.02	0.00
Maternal Grandfather	0.01				0.00
Paternal Grandfather		0.01			0.00
Maternal Grandmother			0.00		-0.01
Paternal Grandmother				0.00	-0.01
Constant	0.94**	1.43***	1.88***	0.36	2.76**
N	700	553	425	266	115
Log likelihood	-345	-251	-195	-126	-44
Pseudo R^2	0.00	0.00	0.00	0.02	0.02
legend: *p<.05; ** p<.01; *** p<.001					
Source: BHPS, Rising 16's, Original Sample Members, England and Wales, 1991-2000					

Table 6.14

Repeating the above analyses with the same outcome six years later at

age twenty-three, however, we see that the significance of grandparental

background effects have disappeared. Twenty-three years old is a point of

transition as young people who are finishing higher education are beginning

to make the move into the labour market for fulltime permanent work.

Macdonald (2009) comments on the precarious nature of youth labour

market in recent years. Given the lack of effects I conjecture that, at age 23,

many young people who are leaving institutions of further and higher

education are entering the labour market at positions which do not reflect

the career trajectory they hope to get on to. Also, with the 'precarious' nature of work patterns, engagement with employment is more likely to take the form of part time or temporary work at this stage.

The below ordered logistic regression goes further to investigate this idea; the categorical Registrar's General Social Classification is used as the outcome when the young person is 23. The base category is skilled non-manual (the most populated category); compared to this category, those with more advantaged paternal grandparents are significantly (at $p < .05$) more likely to be in the professional classes or the managerial/technical class. Those with more advantaged maternal grandparents are also more likely to be in the managerial/ technical class compared to the skilled non-manual. At a higher level of significance ($p < .01$), both maternal and paternal grandfather's positions are significant in influencing whether a young person will be less likely to be positioned in the skilled manual category than the skilled *non*-manual.

Regression: Cambridge Scale Score at 23 (effect of grandparents)					
	29	**30**	**31**	**32**	**33**
Family CAMSIS score	0.27***	0.24***	0.33***	0.26***	0.43**
Paternal Grandfather	0.04				-0.25*
Maternal Grandfather		0.11**			0.25
Paternal Grandmother			0.08		0.11
Maternal Grandmother				0.05	-0.19
Constant	23.48***	21.54***	19.23***	22.02***	19.71**
N	476	584	225	368	104
Adjusted R^2	0.06	0.07	0.09	0.05	0.13
Source: BHPS, Rising 16, Original Sample Members, England and Wales, 1991-2000 legend:* p<.05; ** p<.01; *** p<.001					

Table 6.15

Registrar's General Social Classification at age 23		
	Frequency	**Percent**
Professional	26	2.12
Managerial & technical	180	14.68
Skilled non-manual	231	18.84
Skilled manual	115	9.38
Partly skilled/Armed forces	93	7.59
Unskilled	14	1.14
Missing	567	46.25
Total	1,226	100
legend:* p<.05; ** p<.01, *** p<.001 Source: BHPS, Rising 16's, Original Sample, Members, England and Wales, 1991-2000		

Table 6.16

Ordered Logistic Regression: RGSC category at age 23					
	34	35	36	37	38
Family CAMSIS score	-0.03***	-0.03***	-0.03***	-0.04***	-0.05**
Maternal Grandfather	-0.01**				-0.02
Paternal Grandfather		-0.01*			0.02
Maternal Grandmother			-0.01		0.00
Paternal Grandmother				-0.02	0.00
cut1					
Constant	-5.18***	-5.13***	-5.47***	-5.77***	-6.38***
cut2					
Constant	-2.74***	-2.70***	-2.63***	-3.19***	-3.44***
cut3					
Constant	-1.17***	-1.17***	-1.08**	-1.67***	-1.94**
cut4					
Constant	-0.19	-0.18	0.01	-0.43	-0.62
cut5					
Constant	2.06***	1.94***	2.17***	1.44*	0.90
N	559	453	353	214	99
Log likelihood	-823	-666	-516	-309	-142
Pseudo R^2	0.03	0.04	0.02	0.05	0.06
legend:* p<.05; ** p<.01, *** p<.001					
Source: BHPS, Rising 16's, Original Sample, Members, England and Wales, 1991-2000					

Table 6.17

Main Economic Status at age 25

Current Main Economic Status age 25		
	Frequency	**Percent**
Employed	368	37.13
Unemployed	29	2.93
Family/Maternity	46	4.64
Fulltime education	11	1.11
Government training/other	16	1.61
Missing	521	52.57
Total	991	100.00
Source: BHPS, Rising 16's, Original Sample Members, England and Wales, 1991-1998		

Table 6.18

By this stage the numbers of Rising 16's available to us in the survey with full employment history have dwindled. Attrition is expected in any longitudinal study although, as mentioned, the BHPS has a comparatively good response rate, especially when considering the cohort is in the 'youth phase'. There remains a worthwhile sample of 470 (see table 6.18) for assessing the extent of background effects this far on in ones early career path.

Logistic regression: Having fulltime, permanent employment as main economic status at age 25 (effects of grandparents Cambridge Scale score)					
	39	40	41	42	43
Family CAMSIS score	0.02**	0.02	0.02	0.05**	0.03
Maternal Grandfather	0.00				0.04
Paternal Grandfather		0.00			-0.02
Maternal Grandmother			0.01		-0.03
Paternal Grandmother				0.00	0.01
Constant	0.07	0.67	0.21	-0.93	0.66
N	395	307	242	160	68
Log likelihood	-198	-138	-106	-75	-28
Pseudo R^2	0.02	0.01	0.03	0.07	0.06
Source: BHPS, Rising 16's, Original Sample Members, England and Wales, 1991-1998 legend: * p<.05; ** p<.01; *** p<.001					

Table 6.19

Table 6.19 shows, that by age 25, the effects of a third generation's stratification position is no longer significant. This shows a definite weakening of influence, yet, a small sample size must be taken into account.

6.3.2 Family type, family disruption and lone parents

Changes in demographics and family life are well observed and documented (Jenkins, Pereira, & Evans 2009). A record proportion of young people grow up in non-nuclear families. The BHPS facilitates an extremely wide spectrum of data collection. In particular, the survey's 'following rules' mean that the new household that a separated parent moves into is also surveyed and information on new partners and their families (e.g. their children) is also collected. Similarly, new adults entering the child's household are also surveyed. Taken together the BHPS provides rich information on contemporary household life and 'blended families'.

'Clearly, family life and households in Britain are changing, but how are we to read these figures? Statistics like these can be interpreted in many different ways. More lone-person households, for example, as a statistical tendency is not necessarily 'good' nor 'bad'; nevertheless, this pattern of living has been interpreted as an indication of a fundamental change in modern societies, implying the declining importance of the family' (Spencer & Pahl 2006: 23).

Kiernan (2000) observes that since the 1960s and 70s, marriage rates in most European countries have declined. This is coupled with a rise in cohabitation and, subsequently, the dissolution of more families in recent years (Jenkins, Pereira, & Evans 2009). This is consequential, since non-nuclear or 'blended' families are routinely depicted as experiencing, on average, less advantaged socio-economic conditions (Furlong & Cartmel 2007). Indeed, the results of Sorensen's research (Sorensen 2005) show that the analyses of intergenerational mobility tables suggest the association between social origin and destination is weaker for all alternative family structures, suggesting that as fewer children grow up in two-parent families, the intergenerational mobility pattern would move in the direction of more openness.

Nevertheless, data on family disruption or structure has not ordinarily been incorporated into social mobility analyses. In one study, Biblarz et al.

(1997) argue that research into family structure and social mobility produced results that showed male offspring from a female-headed family are not disadvantaged in their socio-economic attainment. The study into male outcomes uses US data on households with a female head. This suggests there is no penalty for the children (at least male children) of single mothers. The relevance of this study to contemporary UK, however, is questionable, so the finding that intergenerational occupational inheritance is most strong when a young person's mother is present is a testable hypothesis using BHPS data. Results shown below in table 6.20 appear to partially confirm this assertion. On the one hand, living at 16 in a father only household (n= 115) and in a household with neither parent resident (n=96) were associated with lower than average educational attainment. On the other, living in a mother only household type (n=735) does *not* show a significant effect compared to living with both parents. Put conversely, the further the alternative family structures take sons away from their mothers, the more the intergenerational transmission breaks down (Biblarz, Raftery, & Bucur 1997).

Logistic Regression: Attainment of 5+GCSEs(A*-C) age 16, (effects of household type)		
	beta	SE
Family CAMSIS Score	0.05***	0.00
Mum only household (n=735)	-0.16	0.11
Dad only household (n=115)	-0.62**	0.23
Neither parent resident at 16 (n=96)	-1.09***	0.33
Constant	-1.91***	0.19
n = 1967; log likelihood=-1229; Pseudo R^2=0.08 (Base category= both parent s resident at age 16, n= 1432)		
Source: BHPS, Rising 16's, Original Sample Members, England and Wales, 1991-2007		

Table 6.20

Uhlenberg and Mueller (2003) state that educational achievement is proven to be affected by family structure; in fact they argue that it is the most important factor. Intact families, on average, have more time and resources to devote but are also more embedded in social networks facilitating development in the human capital of their children. Devine (2004) argues that on the middle class preserve their social positions through activities of both parents - in ways that benefit from the presence of both parents. This finding is also present in quantitative analyses in much earlier UK studies (e.g. Richardson 1977). Divorced families, on the other hand, are more likely to have comparably lower incomes, over-extended mothers, and to move residences more frequently; the latter being a characteristic seen to dissolve social capital (Uhlenberg & Mueller 2003). As shown in the above model, although still a reasonably uncommon 'family type', children appear to do less well in male headed lone parent households.

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This may show less commitment to invest any money, as Uhlenberg and Mueller suggest, but the difference could also be in comparison of the investment of other resources by mothers. For example, Kalmijn (1994) suggests that mothers spend more time with children than fathers so their cultural resources should be more important and influential.

Parents' general attitudes and expectations are also important, and this may influence family type differences such as via potentially different paternal and maternal attitudes to female employment (Uhlenberg & Mueller 2003: 136). Relating to both resources and attitudes, it is believed that non-biological parents (step parents) are less inclined to communicate with their children; they are less close. Consequently, they are seen as less of a role-model and the transmission of occupational values is less likely. It is found that less time, money and attention are devoted to step children (Uhlenberg & Mueller 2003).

This evidence may seem partially counter to the 'detraditionalisation' thesis, which expects a weakening of the marker of 'traditional family'. As a salient marker, as seen in the above model traditional family type remains significant. However, the different influences of different 'family types' suggest a departure from the marker that any non-nuclear family may be assumed disadvantaged.

In an earlier piece of research, Biblarz and Raftery (1993) set out the link between low attainment and family disruption, again for males only. This

research follows the conventional 'origin- destination' formula for social mobility research (a feature this research has sought to avoid by concentrating on the youth phase as a whole and using techniques which facilitate the illustration and analysis of 'process'). However, drawing a direct link between weakened association between socioeconomic origin and destination and an increase in divorce and the number of families headed by women is potentially flawed; there are many other factors at play and no attention is given to the process of the transition experience. Together with the finding that male offspring were disadvantaged by spending the majority of their family time without two biological parents, the authors also concluded that intergenerational occupational resemblance is weaker among children from 'non intact' families. The paper closes with the conjecture that these non traditional family structures, together with growing divorce rates, might 'produce higher levels of social mobility' or a new kind of 'universalism' (Dench, Aston, Evans, Meager, Williams, & Willison 2002;Sorensen 2005).

Thomson et al (1992) state that difference in family structure and interaction is not vast but it is consistent with previous research on low attainment and behavioural problems. There is evidence however, that a large proportion of what are usually considered the 'effects of divorce' on children are observable before parents separate (Cherlin et al. 1991). Writers suggest that 'those concerned with the effects of divorce on children should

consider reorienting their thinking. At least as much attention needs to be

paid to the process that occur in troubled, intact families as to the trauma

that children suffer after their parents separate' (ibid.). This is supported by

Duncan and Duncan (1969) who state that the mere presence of father does

not instil stability; two parents in an unstable environment can be more

detrimental.

Indeed, underlying, the family disruption hypothesis is the

assumption that, an intact family is at all times better than any alternative

structure. This is shown to be the case with contemporary data, as seen in

table 6.21 below.

Logistic Regression: Attainment of 5+ GCSEs (A*-C) Whether family stratification score is significant within different 'family types'				
Models	**Both parents resident**	**Mum only hhld**	**Dad only hhld**	**Neither parent resident**
Family CAMSIS Score	0.05***	0.05***	0.05**	0.06*
Constant	-1.84***	-2.15***	-2.84***	-3.73**
N	1249	580	91	47
Log likelihood	-773	-373	-56	-27
Pseudo R^2	0.07	0.07	0.10	0.11
Source : BHPS, Rising 16's, Original Sample Members, England and Wales, 1991-2007				

Table 6.21

The above 4 models take each of the 'family types' and use family

CAMSIS score to ascertain the effect of stratification on each of the family

types. Stratification position is significant in each of the 4 'types', showing

that, although class may be assumed a proxy for family type, there are

comparable effects within each of the types; as these 'traditional' markers

(the nuclear family) become less predictable, the individuals in each 'type'

cannot be assumed as homogenous.

Bumpass and Sweet (1989) question whether the effect of family

structure has changed over time. To establish this it is necessary to look at

the most common family structures now and take into account the wider

explanations for these changes. For instance, many years ago single parenting

was commonly the result of death, now it is far more likely to be divorce

(Bumpass and Sweet 1989).

More recently, viewing the change over 15 years using the BHPS

Rising 16's data, apparent changes in prevalence can be picked up; a drop in

2 parent households and a rise in single parent as well as alternative family

type households. Although the BHPS is not ideally designed for making such

temporal comparisons, these trends are consistent with other recent

demographic evidence (Dench, Aston, Evans, Meager, Williams, & Willison

2002).

Household type age 16 (comparison 1991-2006)				
	1991		2006	
	Frequency	Percent	Frequency	Percent
Both parents resident	100	76.34	62	58.49
Mum only household	27	20.61	32	30.19
Dad only household	1	0.76	7	6.6
Neither parent resident	3	2.29	5	4.72
Total	131	100	106	100
Source: BHPS, Rising 16's, Original Sample Members, England and Wales, 1991-2007				

Table 6.22

An apparent flaw in Biblarz and Raftery's work (1993), is in the combining together of non-intact (intact versus non-intact) families, which makes it difficult to compare the extent to which the different forms are non-traditional. Despite making efforts to ameliorate this in their 1997 work (Biblarz, Raftery, & Bucur), there is still an omission of female offspring and the effects on them of family disruption, due to the lack of comparative data available for this time.

Household type age 16 (constructed measure)		
	Frequency	Percent
Both parents resident	1,432	60.22
Mum only household	735	30.91
Dad only household	115	4.84
Neither parent resident	96	4.04
Total	2,378	100
Source: BHPS, Rising 16's, Original Sample Members, England and Wales, 1991-2007		

Table 6.23

Logistic Regression: Attainment of 5+ GCSEs (A*-C) (improved 'family type' measure) age 16		
	beta	SE
Female	0.46***	0.10
Social housing	-1.21***	0.14
School year	0.05***	0.01
Family CAMSIS score (dominance approach)	0.04***	0.00
Grammar school	0.72***	0.23
Grammar school (fee paying)	1.23*	0.59
6th form college	0.66***	0.13
Independent	0.58*	0.27
Secondary Modern	-0.37**	0.14
Other school type	-1.05***	0.27
Mum only household	-0.19	0.11
Dad only household	-0.65**	0.23
Neither parent resident	-1.40***	0.33
Constant	-2.17***	0.22
n = 2228; log likelihood=-1296; Pseudo R^2=0.16 (Reference categories: male, parents home owners, school year 1991=0, comprehensive school, lives with both parents) Source: BHPS, Rising 16's, Original Sample Members, England and Wales, 1991-2007		

Table 6.24

Table 6.24 above shows the model of best fit from Chapter 4 but with a replacement family type measure which is build up from several measures across the Rising 16's records and, therefore, results in no missing data due to this construction. As shown, young people from all non-intact (non-traditional) family types are significantly less likely to gain 5 or more A*-C GCSEs before finishing compulsory schooling.

Gender Roles

Many studies in the past have excluded those with no occupational information; commonly, women. However, the influence of mothers on parenting effects, and the additional impact of mothers on some socio-economic outcomes over-and-above fathers effects have begun to be recognised (Kalmijn 1994;Lampard 2007). This study follows the approach of Lampard (2007), where not only equal importance is give to the stratification position of women but the educational attainment of both parents is also taken into account to ease the possible gaps in female occupational attainment. Likewise, consideration must be given to the working mother thesis where the absence of a mother due to a full time career can be countered by the influence of a working mother as a role model (Kalmijn 1994). Outside of the stratification literature, the effects on children of mothers in work has been given attention in detail in, for instance, psychology, economics, and educational sociology (Kalmijn 1994).

The working mother hypothesis (where the mother is absent through full time employment or long work hours) conflicts with role model theory as mother's labour market income is seen as detrimental to a child's educational attainment. Indeed, there is evidence that conflicting messages are sent to daughters- to achieve highly, but not to let it affect marriage and family plans (Rosen & Aneshensel 1978); the aspiration to achieve in all areas. In contrast, 'analyses suggest that the economic resources and occupational role models

that mothers provide are now as important as those traditionally provided by fathers' (Kalmijn 1994). Overall, there is the question of whether children with an absent mother are prone to do less well and, that studies show presence or absence of bio-father had no effect (Biblarz, Raftery, & Bucur 1997). This implies that children from a separated home fare better with mothers, as suggested in the above analyses.

6.4 Interaction effects between parental background and gender

One under-researched area touched upon here is the possibility of differences between the influence of same-sex and opposite sex parents daughters. There are findings that mother's occupational status is not more important for daughters than for sons, 'confirming that the mother's role is very much like that of the father' (Kalmijn 1994), yet there is the fore mentioned evidence, supported by the current data, that offspring are not disadvantaged by a family type that varies from the traditional two parent model if the mother is present (see above).

One expectation is that the positive relationship between mother's educational attainment and child's achievement holds for both sons and daughters and the relationship may actually be stronger than the effect of family structure alone (Garasky 1995;Kalmijn 1994). Uhlenberg and Mueller (2003) support this view, showing that mother's status is particularly important for educational outcomes, at times having substantial effects that are independent of the influence of fathers (2003: 135).

Logistic Regression: Attainment of 5 or more GCSEs (A*-C) (interaction effects)		
	beta	**SE**
Female	0.84**	0.33
Family CAMSIS score	0.05***	0.00
Female*Family CAMSIS score	-0.01	0.01
Constant	-2.88***	0.25
n=932; log likelihood=-611; Pseudo R^2=0.05 Source: BHPS, Rising 16's, Original Sample Members, England and Wales, 1991-2007		

Table 6.25

Table 6.25 shows there is no interaction effect between parental CAMSIS score and gender for the young people attaining GCSEs at age 16. This changes two years later though when observing the same effects for A-level attainment. Females are more likely to gain A-levels, as are those with parents in positions of advantage but when a young woman comes from a background of advantage; she is less likely than her similarly advantaged male counterpart to gain A-levels (shown in table 6.26).

Logistic Regression: Attainment of 1 or more A-levels by 18 (interaction effects)		
	beta	**SE**
Female	1.55***	0.48
Family CAMSIS score	0.05***	0.01
Female* family CAMSIS score	-0.03***	0.01
Constant	-2.46***	0.37
n=932; log likelihood=-611; Pseudo R^2=0.05 Source: BHPS, Rising 16's, Original Sample Members, England and Wales, 1991-2005		

Table 6.26

Similarly, when exploring the interaction effects of gender with

Grandparents stratification position, there is a lack of significance at age 16

for GCSE attainment (table 6.27) but by age 18 (A-level attainment) there are

significant effects between gender and Grandparents Cambridge scale

position for all but maternal grandmother. These, again, show that a female

in a position of advantage (in terms of Grandparents stratification position),

is not as 'advantaged' as her male counterparts.

Logistic Regression: Attainment of GCSE 5+(A*-C) at 16				
	in1	in2	in3	in4
Family CAMSIS score	0.04***	0.04***	0.04***	0.05***
Female	0.29	0.63**	0.54*	0.27
Maternal Grandfather	0.01**			
Female*Maternal grandfather	0.00			
Paternal Grandfather		0.02***		
Female*Paternal Grandfather		-0.01		
Maternal Grandmother			0.01*	
Female*Maternal Grandmother			0.00	
Paternal Grandmother				0.01
Female*Paternal Grandmother				0.00
Constant	-2.60***	-2.78***	-2.73***	-2.77***
N	1842	1291	1200	653
Log likelihood	-1161	-801	-762	-400
Pseudo R^2	0.09	0.10	0.08	0.11
Source: BHPS, Rising 16's, Original Sample, Members, England and Wales, 1991-2007				

Table 6.27

6.5 Sibling effects

Together with the effect of previous generations within a family,
there is also a plethora of research on the effects of siblings on an individual's
outcomes. Family size (number of siblings) has been deemed significant in a
number of studies (Uhlenberg & Mueller 2003). There is also a literature
around this area concerning the effects of sibling position and the type of
relationship between siblings (e.g. (Powell & Steelman 1993). There is a
qualitative partiality in this area, yet, this does not dispel the potential for
statistical investigation of the same topic. Shown below in table 6.28 the
BHPS provides a wealth of family data here in the case of co-resident siblings
(siblings who have never resided with the Rising 16 are likely to have been
missed here yet, siblings who have been resident in the household of the
BHPS respondents previously at anytime can be included). I have chosen to
include natural siblings as well as 'other brothers and sisters' and half
siblings, which covers those adopted and those who enter the household as
step-children.

Number of co-resident siblings ever identified for individual Rising 16, waves A-Q		
	Frequency	**Percent**
1	979	44.93
2	720	33.04
3	308	14.13
4	76	3.49
5	54	2.48
6	19	0.87
7	11	0.5
8	1	0.05
9	10	0.46
11	1	0.05
Total	2,179	100
Source: BHPS, Rising 16, Original Sample Members, England and Wales, 1991-2007		

Table 6.28

Once again, the outcomes used throughout the thesis are analysed with sibling position also considered. As Blau and Duncan (1967) recognise, using a sibling as a 'control' can enhance the model's power to explain the outcome by providing more information about the 'family climate' (Blau & Duncan 1967: 316-320). Their respected, but dated, research uses the education of a man's eldest brother as it 'can be assumed to reflect the extent to which learning and achievement are valued and encouraged in his family'. This, again, follows the patriarchal model of social mobility research where data on male family members are used as key measures. They make the case that, although the respondent's own education can be used to measure 'family climate', it cannot be used as the independent measure as it is to serve as 'the major dependent variable'.

Logistic regression: Attainment of 5+ GCSEs(A*-C) (number of siblings in household)		
	beta	SE
Female	0.57***	0.15
CAMSIS Score (dominance approach)	0.04***	0.01
School year	0.03	0.02
Number of siblings	-0.26***	0.07
Constant	-1.92***	0.34
n= 843; log likelihood: -519; Pseudo R^2=0.10 Source: BHPS, Rising 16, Original Sample Members, England and Wales, 1991-2007		

Table 6.29

Table 6.29 shows that, in the BHPS, on average, the greater number of siblings equates to lower educational attainment. This is supported by studies which suggest that children of larger families do less well as there are fewer resources to spread around (McLanahan & Bumpass 1988).

Logistic Regression: Attainment of GCSE 5+ A*-C					
	sib1	sib2	sib3	sib4	sib5
Female	0.44**	0.53*	0.59***	0.58***	0.56***
Family CAMSIS Score	0.04***	0.04***	0.05***	0.05***	0.05***
School year	0.03	0.02	0.02	0.01	0.02
Sibling highest qualification	-0.13***				
Sibling first occ (Cambridge scale)		0.01			
Sibling last occ (Cambridge scale)			0.01**		
Sibling first economic status				0.20**	
Sibling last economic status					0.04
Constant	-1.39***	-2.49***	-3.06***	-3.03***	-2.51***
N	649	412	636	843	843
Log likelihood	-402	-265	-387	-520	-525
Pseudo R^2	0.09	0.07	0.10	0.10	0.09
Source: BHPS, Rising 16's, Original Sample Members, England and Wales, 1991-2007					

Table 6.30

The models in table 6.30 expand the analyses using the explanatory variables constructed using the sibling data. When added to gender and family CAMSIS score, several of the sibling measures remain significant at a high level. Model sib1 shows that the highest qualification gained by the sibling of a Rising 16 is highly significant in predicting whether that individual attains 5 or more A*-C GCSEs. The measure is constructed using the wQFEDHI variable therefore, a negative relationship is shown; the highest qualification is coded as 1. Likewise, at the $p<0.1$ level, a sibling's last occupational position on the Cambridge Scale and their first economic status (identical to the outcome used for the Rising 16 themselves) are significant in predicting the GCSE attainment outcome.

A similar story is told in the analyses using A-levels as the outcome, in Table 6.31. Noticeable differences can be seen, highest qualification of a sibling loses its significance but a sibling's last main status is highly significant.

Logistic Regression: Attainment of A Levels by age 18					
	sib1	sib2	sib3	sib4	sib5
Female	-1.01**	1.58**	-0.36	-1.07***	-0.52*
Family CAMSIS score	0.04***	0.04**	0.07***	0.06***	0.05***
School year	0.20***	0.34***	0.19***	0.13***	0.19***
Sibling highest qualification	-0.05				
Sibling first occ (Cambridge scale)		0.02			
Sibling last occ (Cambridge scale)			0.05***		
Sibling first economic status				1.02***	
Sibling last economic status					-0.40***
Constant	-3.59***	-6.71***	-6.85***	-7.34***	-3.65***
N	273	205	292	385	385
Log likelihood	-128	-76	-135	-164	-193
Pseudo R^2	0.20	0.23	0.29	0.35	0.23
Source: BHPS, Rising 16's, Original Sample Members, England and Wales, 1991-2007					

Table 6.31

Tables 6.32 and 6.33 extend the sibling analyses further. Focusing on the 'last occupation' measure of the siblings, the first table (6.32) shows that GCSE attainment has most explanatory power for the outcome of gaining A-levels by age 18. This is unsurprising yet, comparing models sib2 and sib6, it is found that this qualification at 16 is more influential than family stratification, implying that family background is less important than attainment at 16. Also, interestingly, this measure eliminates the significance of sex, present in other models, suggesting that gender has no additional influence on A-level attainment over and above any influence incorporated in GCSE attainment. Likewise, in table 6.33, the highest R^2's are seen in the 'last occupation' models. (The distribution of siblings into the first and last occupations by Cambridge Scale measures are shown in the histograms

below). Here, however, family CAMSIS score has more impact than GCSE attainment on status at 18.

The differences between the explanatory power of the models across the two tables are also notable. The logistic regression with A-level attainment as the binary outcome shows much larger R^2s than the second table with the outcome of highest qualification achieved by 18.

| Logistic Regression: A Level Attainment (sibling effects with GCSE results)											
	Sib1	Sib2	Sib3	Sib4	Sib5	Sib6	Sib7	Sib8	Sib9	Sib10	Sib11	Sib12
5+ GCSE (A*-C)	2.52***	4.52***	2.50***	3.16***					3.80***	4.30***	1.96***	2.94***
Female	1.13	0.09	-0.69*	-0.44	1.58**	-0.36	-1.07***	-0.52*	1.31*	0.10	-0.83**	-0.47
School year (1991=0)	0.24*	-0.06	0.07	0.08*	0.34***	0.19***	0.13***	0.19***	0.26*	-0.05	0.07	0.09*
Sibling's first occupation	-0.01				0.02				0.00			
Sibling's last occupation		0.05***				0.05***				0.05***		
Sibling's first status			0.71***				1.02***				0.84***	
Sibling's last status				-0.50***				-0.40***				-0.49***
Family CAMSIS score					0.04**	0.07***	0.06***	0.05***	-0.04	0.01	0.03**	0.01
Constant	-4.46***	-4.97***	-4.44***	-1.79***	-6.71***	-6.85***	-7.34***	-3.65***	-3.12*	-5.42***	-6.13***	-2.26***
n	205	292	385	385	205	292	385	385	205	292	385	385
Log Likelihood	-66	-95	-152	-155	-76	-135	-164	-193	-64	-95	-148	-155
Pseudo R^2	0.33	0.50	0.39	0.38	0.23	0.29	0.35	0.23	0.35	0.50	0.41	0.38
Source: BHPS, Rising 16's, Original Sample Members, England and Wales, 1991-2005 (Siblings occ= Cambridge Scale)												

Table 6.32
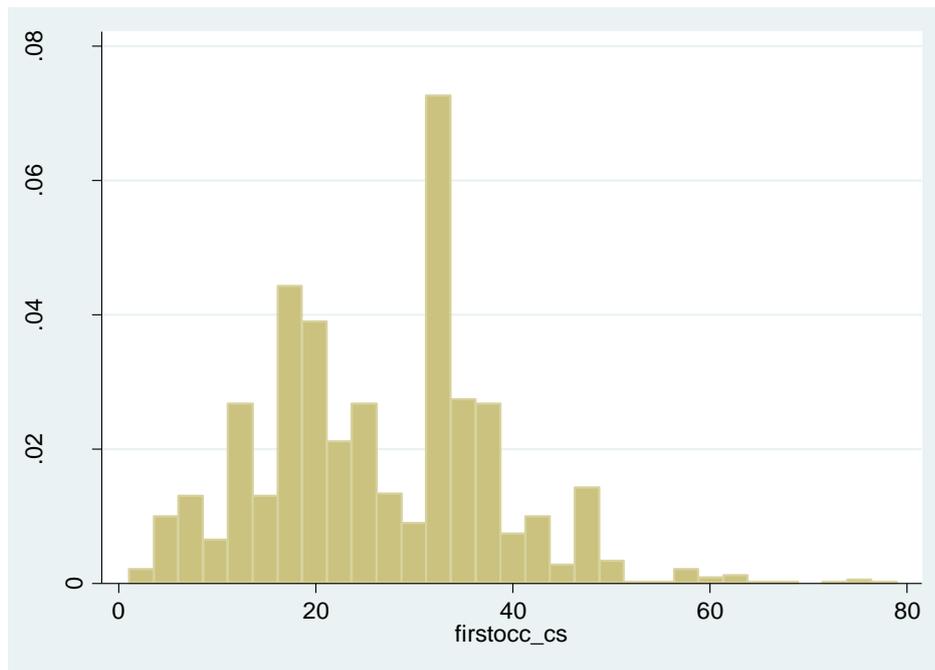
Figure 6.1(Distribution of Siblings first occupation on Cambridge Scale n= 1274)
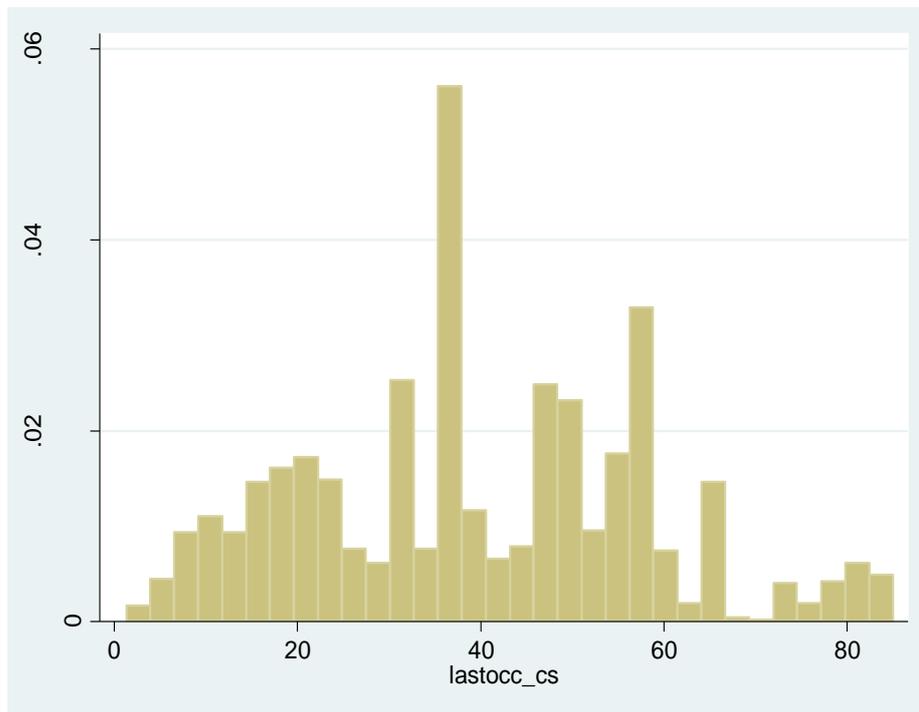

Figure 6.2(Distribution of siblings last occupation on Cambridge scale n=1797)

Multiple Regression: Highest Qualification achieved by age 18 (sibling effects)															
	Sibr1	Sibr2	Sibr3	Sibr4	Sibr5	Sibr6	Sibr7	Sibr8	Sibr9	Sibr10	Sibr11	Sibr12	Sibr13	Sibr14	Sibr15
5+GCSE (A*-C)	-0.34**	-0.39**	-0.91***	-0.54***	-0.53***						-0.08	0.08	-0.44***	-0.23*	-0.23*
Female	-0.45***	-0.13	-0.17*	-0.13	-0.1	-0.32**	-0.07	-0.10	-0.05	-0.04	-0.34**	-0.07	-0.15*	-0.09	-0.07
School year	0.02	0.00	0.04***	0.01	0.02	0.01	-0.01	0.01	0.00	0.00	0.01	-0.01	0.02*	0.00	0.01
Sibling Highest Ql	-0.06**					-0.05*					-0.06*				
Sib First occ		0.01					0.01*					0.01*			
Sib Last occ			0.01***					0.01**					0.01***		
Sib First Status				0.05					0.00					0.03	
Sib Last status					0.08**					0.08**					0.09**
Family CAMSIS Score						-0.01***	-0.01***	-0.03***	-0.02***	-0.02***	-0.01***	-0.01***	-0.02***	-0.01***	-0.01***
Const	3.04***	2.49***	2.17***	2.49***	2.43***	3.49***	3.03***	3.41***	3.27***	3.16***	3.47***	3.08***	3.10***	3.12***	3.04***
n	296	216	314	419	419	296	216	314	419	419	296	216	314	419	419
Adjstd R²	0.08	0.04	0.25	0.08	0.09	0.12	0.09	0.32	0.13	0.15	0.12	0.09	0.35	0.14	0.16
Source: BHPS, Rising 16, Original Sample Members, England and Wales, 1991-2005															

Table 6.33

6.6 Attitudes and Aspirations

(Drew 1995) writes of the effects of 'push' and 'pull' factors (92) on the decision to stay on in education at these pivotal points. Below (tables 6.34-6.36) are examples of the effects of attitudes and expectations on the attainment of young people at age 16 and 18. These are cited as 'push' factors alongside family pressures and experiences. The 'pull' factors comprise effects such as the attractions of work and income. These 'pull' factors relate to the labour market and youth unemployment, essentially linked to the arguments of Beck (Beck & Beck-Gernsheim 2002) and the continued influence of structural factors at a time when the there is argued 'detraditionalisation' and perceived individualisation (Beck & Beck-Gernsheim 2002). Drew's (1995) focus is on ethnic minorities, yet he touches upon the class divide (46) and the penalties suffered by those in disadvantaged positions.

Maximum: Logistic Regression: Attainment of 5+ GCSEs(A*-C)										
	y1	y2	y3	y4	y5	y6	y7	y8	y9	y10
Family CAMSIS score	0.05***	0.05***	0.05***	0.05***	0.05***	0.05***	0.05***	0.05***	0.05***	0.05***
Female	0.52***	0.51***	0.51***	0.51***	0.32*	0.31*	0.32*	0.32*	0.48***	0.61***
School year (1991=0)	0.04*	0.05**	0.03*	0.03*		0.06		0.02	0.02	0.01
Feel <u>completely happy</u> about school work	1.10**									
Feel <u>happy</u> about school work		0.94***								
Feel <u>completely unhappy</u> about school work			0.08							
Feel <u>unhappy</u> about school work				-0.31*						
Means <u>great deal</u> to do well at school					0.64***	0.70***				
Mean <u>a lot</u> to do well at school							-0.21	-0.23		
Leave school at 16									1.97***	
Feel a failure										0.72***
Constant	-2.96***	-3.21***	-2.89***	-2.87***	-2.51***	-3.20***	-2.16***	-2.38***	-6.46***	-5.35***
N	1640	1640	1640	1640	1036	1036	1036	1036	1603	1638
Log likelihood	-1038	-1020	-1041	-1039	-656	-655	-666	-666	-992	-1023
Pseudo R^2	0.09	0.10	0.08	0.09	0.08	0.08	0.07	0.07	0.11	0.10
Source: BHPS, Rising 16's, Original Sample Members, England and Wales, 1995-2006 legend: p<.05; ** p<.01;*** p<.001										

Table 6.34

The first table (table 6.34) shows the results of matching data from the British Youth Panel (data from the Rising 16's before they entered the adult survey, aged 11-15) to the data of the Rising 16's in the adult survey. The measures above use the highest ranking answer from throughout the Youth Panel duration (the subsequent table (table 6.35) uses the lowest ranked answer to ascertain any difference in patterns). Family CAMSIS and gender remain significant in every model, and net of these influential background factors, much of the aspiration data is found to have an effect on the outcome of gaining 5 or more GCSEs at age 16. Two measures are constructed from the responses to the youth panel question 'How do you feel about your school work?'. Model one uses the top answer of 'Completely happy' whereas model two uses the top two answers, taking in more responses. Both of these measures are significant; those young people who had a positive attitude to their school work are more likely to achieve 5 or more GCSEs at A*-C grades. Conversely, those who have a negative attitude to their school work as a child (model four using the bottom two responses to the same question above) are less likely to attain the benchmark of 5 or more GCSEs. Logits 5-8 show that the highest responses to the question 'How much does it mean to do well at school?' are significant, net of parental background and gender; however, those children who felt it meant 'a lot' (second highest response) were not significantly more likely to attain 5 or more GCSEs upon reaching age 16. The last two models show a positive relationship with GCSE

attainment; young people who want to leave school at 16 and those who feel a failure appear to do well at their exams.

Table 6.35 show similar results with the main difference being in models 7 and 8 where those who responded that it meant 'a lot' to do well at school were negatively associated with achieving 5 or more GCSEs at age 16.

Minimum: Logistic Regression: Attainment of 5+ GCSEs (A*-C)										
	y1	y2	y3	y4	y5	y6	y7	y8	y9	y10
Family CAMSIS score	0.05***	0.05***	0.05***	0.05***	0.05***	0.05***	0.05***	0.05***	0.05***	0.04***
Female	0.50***	0.51***	0.51***	0.51***	0.31*	0.31*	0.31*	0.31*	0.60***	0.38***
School year(1991=0)	0.02	0.01	0.03*	0.03*		-0.02		-0.01	0.05**	0.05**
Feel completely happy about school work	0.32**									
Feel happy about school work		0.63***								
Feel completely unhappy about school work				-0.35						
Feel unhappy about school work				-0.05						
Means great deal to do well at school					0.90***	0.92***				
Mean a lot to do well at school							-0.85***	-0.86***		
Leave school at 16									0.41***	
Feel a failure										1.56***
Constant	-2.91***	-3.14***	-2.88***	-2.89***	-2.95***	-2.71***	-2.09***	-1.95***	-4.23***	-5.52***
N	1640	1640	1640	1640	1036	1036	1036	1036	1638	1603
Log likelihood	-1037	-1030	-1041	-1041	-654	-653	-656	-656	-1022	-953
Pseudo R^2	0.09	0.09	0.08	0.08	0.09	0.09	0.08	0.08	0.10	0.14
Source: BHPS, Rising 16's, Original Sample Members, England and Wales, 1995-2006 legend: p<.05; ** p<.01;*** p<.001										

Table 6.35

Logistic regression: attainment of 1 or more A levels by 18		
	beta	SE
5+ GCSE (A*-C)	2.06***	0.31
Family CAMSIS score	0.09***	0.01
Female	0.99***	0.32
School year (1991=0)	0.54***	0.06
Feel happy about school work	0.90*	0.38
Feel a failure	0.42*	0.18
Constant	-12.23***	1.27
n=551; log likelihood=-189; Pseudo R^2=0.49		
Source: BHPS, Rising 16's, Original Sample Members, England and Wales,1995-2005		

Table 6.36

The final table in this section displays a logistic regression with the outcome of attaining 1 or more A-levels by age 18. Both measures of attitude from the BYP are significant but, rather conversely, those young people who report as 'feeling a failure' at a point in their childhood years are *more* likely to achieve A-level. This supports tentative evidence that those with lower self-esteem may push themselves harder to achieve 'superior' results at school (Nadari et al. 2009: 28).

6.7 Conclusion

These results indicate that there are patterns of the intergenerational transmission of inequality that go beyond parent-child effects. The fact that measures of grandparental background sometimes have significance over and above that of parents is a particularly interesting finding. Despite weakening over time, the earlier outcomes remain strongly affected by

maternal grandparents (net of parental CAMSIS score) and this continues

along the tracks of the Rising 16's to the occupational classification when the

young person is in their mid 20s.

As a dataset, the BHPS offers a great deal in terms of familial matching

and, therefore, facilitates the analyses of wider family effects. Data on

grandparents enables a three generational linkage updating and, indeed

contributing, to research in that area. Likewise, the facilitation of sibling

linkage allows contemporary analyses on the effects of the number of

children in a family, highly significant and negatively associated. Moreover,

significant implications on the tracks laid by the siblings of the Rising 16's

were found; even when mediated through the parental background

measures.

As seen in previous chapters, household data can hold significant

influence on the outcomes of the Rising 16's and in this chapter that was

extended to family type. Arguments on the negative effects on the non-intact

families were rehearsed. The BHPS data suggest that young people are

significantly likely to do less well when they are brought up in a family type

that differs from the 'traditional' two parent model; the 'traditional marker'

of the family remains contributory to the outcomes of young people,

throughout the youth phase trajectories. Those raised in a male single parent

household or one where neither parent is present are significantly

disadvantaged; confirming the results of Biblarz et al. (1997), that to remove

mothers from the family type is detrimental to the outcomes of young people.

Lastly, the Rising 16's adult outcomes were linked to data from the Youth Panel (responses from the individuals when they were aged 11-15). This was exploratory but proved interesting. Attitudinal responses were shown to be significant, whether relying on the highest ranked answer given by the young adults as children, or the lowest ranked answer over the possible 5 waves of the Youth Panel. Significance was found for both educational outcomes at age 16 and age 18; positive attitudes were seen to be associated with positive attainment at a later stage.

Expanding the research beyond the possibilities of most other secondary data analysis allows exploratory contributions to be made in several different research areas related to young people. It enables a broader picture to emerge of the effects involved in the transitions of the Rising 16's. As the BHPS Rising 16's sample continues to age, additional analyses can be carried out which advances this yet further into the extended youth phase and beyond.

The next chapter explores the tracks and trajectories of the Rising 16's as a whole process, using longitudinal data analysis techniques, sequence analysis and cluster analysis.

Chapter 7: The contribution of longitudinal outcomes

In this chapter an analysis of socio-economic trajectories through time for young adults is presented. As described by Ryder (1965), each cohort's experience is unique; in the case of the Rising 16's, the period in question is 1991-2007 (or 1975-1991 in birth cohort terms). As previously detailed, the landscape against which this group move into adulthood includes a change in Government from 18 years of Conservative rule through the landslide victory of New Labour in 1997, which resulted in major policy change. As discussed in previous chapters, these include the introduction of the minimum wage, the New Deal for Young People and a concerted focus on social inclusion. Despite a drive to alleviate social exclusion, there is evidence that social inequality persisted, and in some cases worsened, over the period (Hills, Sefton, & Stewart 2009a).

Analyses throughout this thesis have explored social inequalities in qualification attainment at age 16; participation in post-compulsory education; and the early labour market outcomes of the Rising 16's cohort. Evidence thus far has shown that the 'traditional markers', said to be weakening in the 'detraditionalisation thesis' (Beck & Beck-Gernsheim 2002) such as gender, parental background and household factors are, conversely, all still hugely influential on the outcomes of young people.

Using three specialised techniques, namely sequence analysis, cluster analysis, and by exploring panel models using software for Generalized

Linear Latent and Mixed Models (GLLAMM), in order to summarise multiple

outcomes, the focus in this chapter is on analyses of socio-economic

trajectories through time for the Rising 16's.

7.1.1 Sequence Analysis in the Social Sciences

Sequence analysis is a method which was first used in Biology in order

to examine DNA sequences. Increasingly, however, its efficacy for analysis in

the social sciences has been utilised. Applications of sequence analysis to

research into careers, residential mobility and also school to work transitions

(Abbott & Tsay 2000;McVicar & Anyadike-Danes 2002) is said to enable an

examination of the fuller longitudinal 'process' which is otherwise frequently

eschewed in favour of origin to destination, social mobility style outcomes.

This is achieved by finding an effective way to summarize data on sequences

of relevant activities, allowing the analyst to characterise different patterns

of sequences and in turn to analyse the influences and correlates of fitting to

one type of pattern compared to another.

Pollock's (2007) study makes a suitable illustration of a social science

application. His analysis uses a technique he terms 'multiple sequence

analysis' (MSA) in which he goes beyond the standard uni or bivariate

typologies to construct sequences defined by a greater number of variables,

increasing the state space accordingly. His typologies focus on measures of

marital status, employment, housing tenure, and whether an individual has

dependent children.

Pollock states that the '...product of SA (sequence analysis) is a

typology as important in itself' (2007: 179) and he makes the link between

the common use of typologies in youth research (transitional analysis). This

is exemplified by Furlong and Cartmel (2007) who use this technique.

Furlong and Cartmel's study uses data from a longitudinal study carried out

during the 1980s in the west of Scotland and comprises similar sample

restrictions used here, of the 16-23 age group. The authors purport that

those from advantaged backgrounds appear to follow more linear routes

whereas, the non-linear pathways are dominated by young adults who are

less advantaged in a number of measures. Furlong and Cartmel (2007)

proceed to position the findings of their sequence analysis as in support of

Beck and Giddens individualisation thesis. This argument shall be picked up

again further on. Similarly, Scherer (2001) also uses this technique in

comparing young peoples' transitions in Germany and Britain. These

applications aside, the technique of sequence analysis remains an

infrequently used method for youth transitions work.

 Sequence analysis can make two explanatory contributions: first, to

summarise the 'types' of sequence the Rising 16's take as they are followed

year on year; secondly, to explore what influences these 'types' of sequence,

such as whether people from a certain background are more likely to follow a

particular 'type' of route. Attention can be paid to what effects social

divisions have on the young peoples' trajectories and the weakening of the

effects of traditional markers. Here, the extent of 'detraditionalisation' can

therefore be assessed using an innovative technique on previously

unanalysed data on young people growing up in the 1990s in Britain.

7.1.2 Data Management

The data used are synthetic cohorts created from the BHPS Rising

16's; young people who enter the adult survey upon turning 16 and can be

defined as Original Sample Members from England and Wales only (for the

purposes of ease of comparison in educational and qualification systems).

The first outcome measure used in the sequence analysis (and

subsequent cluster analysis is current economic status coded into 6

categories: work, unemployment, family care, education, training, other. This

has been recoded from the BHPS survey measure *wjbstat* (Current economic

status). This variable is also utilised in previous chapters using cross-

sectional analysis. There are inconsistencies with this measure within the

BHPS itself but these are readily dealt with by recoding data from the first

wave (the categories change after wave A and the overall measure changes in

its label from 'current labour force status' to current economic activity';

alterations such as this can cause inconsistencies in longitudinal comparisons

and can sometimes go unnoticed). In the analyses below, the categories of

maternity and family care which are available on the original 'wJBSTAT' measure have been combined, and the retired category is irrelevant here for a group of young people under 23 years old.

Other possible outcome measures that were considered include educational divisions, labour market positions and social classifications (examples of these can be seen in the Appendix). These offered alternative state spaces to be experimented with and these outcomes are operationalisable in the BHPS and have been used in studies focusing on adult trajectories, however, in this study where the sample is composed of young people of 16 and over, it was decided that an outcome which encompassed both education and employment possibilities was most appropriate. So early on in an individual's career and so as to include the young people on varied trajectories as opposed to those dominated by academic or labour market sequence elements.

As in all longitudinal data analysis, attrition can be a major issue (Taris 2000) and, although great effort is made by the BHPS to retain respondents, during this 'youth phase' where frequent movement is likely (due to leaving home for further or higher education, taking gap years, or changing households etc.), it does reduce response rates. In comparison to the YCS, however, the Rising 16's have a favourable rate of response (see Appendix) and using sequence analysis techniques, as explained below, gaps within the sequence can be dealt with a range of promising solutions.

7.1.3 Description

Table 7.1 gives a description of the Current Economic Status measure used to define the young people's sequences between 16-23 years old. The number represented by the total is of sequence *elements,* rather than individuals, of which there are 854. This measure is based on the wJBSTAT from the individual records in the BHPS. The age group selected follows that used in other literature, including another study which used longitudinal data to produce a cluster analysis on monthly status change (Furlong et al. 2003), mentioned further on. The following analysis links data from 8 waves, from when the young person enters the survey at 16 (their first wave 1991-2000) to when they turn 23 (1998 at the earliest up to 2007). The status itself is defined through responses to the face-to-face interview question and, as expected, employment and education comprise the majority of the elements of each sequence. The breakdown of sequences within individuals is first displayed in table 7.2. The table shows the most common sequences in the dataset. For example, the most common trajectory experienced by 64 youths, was education at ages 16-21, followed by employment ages 22-23. It is clear that many of the individuals within the sample of Rising 16's have similar sequences incorporating education and employment.

Current Economic Status		
	Frequency	**Percent**
Working	3,268	47.83
Unemployed	451	6.6
Family Care	267	3.91
Education	2,617	38.31
Training	118	1.73
Other	111	1.62
Total	6,832	100
Source: BHPS, Rising 16's, Original Sample Members, England and Wales,1995-2005		

Table 7.1: Descriptives of Sequence Elements

Most frequent sequences		
Sequence pattern	**Frequency**	**Percent**
44444411	64	15.65
44111111	62	15.16
44444111	53	12.96
41111111	52	12.71
11111111	50	12.22
44411111	42	10.27
44444441	37	9.05
44441111	23	5.62
44444444	15	3.67
44211111	11	2.69
Total	409	100
1=Working, 2=Unemployed,3=Family Care,4=Education, 5=Training, 6=Other		

Table 7.2: Frequency table of sequences

Sequence- Order		
	Frequency	**Percent**
41	333	56.44
421	55	9.32
1	50	8.47
4141	46	7.8
4121	27	4.58
451	17	2.88
4	15	2.54
414	15	2.54
51	14	2.37
413	9	1.53
42	9	1.53
Total	590	100
1=Working, 2=Unemployed,3=Family Care,4=Education, 5=Training, 6=Other. The so option treats all sequences that have the same order of elements alike		

Table 7.3: Sequences with the same *order* of elements, ranks (1/10)

Table 7.3 and Table 7.4 are different ways of describing the elements included in the sequences; the most frequent order and the most frequently seen elements, respectively.

Sequence- Elements		
	Frequency	**Percent**
14	404	54.16
124	122	16.35
1	50	6.7
145	30	4.02
134	25	3.35
12	23	3.08
1245	21	2.82
146	19	2.55
24	18	2.41
1234	17	2.28
15	17	2.28
Total	746	100
1=Working, 2=Unemployed,3=Family Care,4=Education, 5=Training, 6=Other The se option treats all sequences as identical if they consist of the same elements		

Table 7.4: Sequences with the *same* elements, rank (1/10)

Observed sequences		
Observations	**Sequences**	**% of observed**
1	254	29.74
2	30	3.51
3	8	0.94
4	8	0.94
5	3	0.35
6	2	0.23
7	1	0.12
8	4	0.47
9	1	0.12
11	1	0.12
15	1	0.12
23	1	0.12
37	1	0.12
42	1	0.12
50	1	0.12
52	1	0.12
53	1	0.12
62	1	0.12
64	1	0.12
Total	**321**	37.59
Number of *observed* sequences: 854; Overall number of observed elements: 6; Maximum sequence length: 8; Number of producible sequences: 1679616		

Table 7.5

Table 7.5 is the output resultant in the 'sqdes' command in Stata. It shows
that there have been 854 sequences observed and among these, there are
observations for 6 different elements (as mentioned, working,
unemployment, family care, education, training, other) and up to 8 positions
(in this case, survey waves).

It is noted that there are 321 *different* sequences out of the 854

observations. As highlighted by Brzinsky-Fay, Kohler, & Luniak (2006: 441),

'In the limiting case when all observed sequences were unique (no

concentration), the division of the number of different sequences by the

number of observed sequences would be 1, whereby this number would

converge to zero when all observed sequences were equal (high

concentration).' The measure of concentration here is 38%.

Summary of number of different elements in sequence			
Sex	Mean	Standard Deviation	Frequency
Male	2.1985	0.6804	403
Female	2.4789	0.7638	451
Total	2.3466	0.7387	854

Table 7.6: Difference between sexes

Table 7.6 suggests that, overall, the variety of elements young men

and women spend their years from 16-23 in are fairly equally distributed;

both sexes have approximately 2 different 'statuses' within their 8 wave

sequences. This might support the argument that 'gender differentiated

patterns of attainment have become more equitable over the past 2 decades'

(Furlong & Cartmel 1997). On the other hand, there is substantial

heterogeneity within the employment status categories analysed, which is

likely to incorporate gender segregation in outcomes such as employment

and education which are matched by this particular pattern of sequences

(Anker 1998).

7.1.4 Visualisation

A graphical representation is advisable in the usual case where the

sequences are complex. One technique is that of the sequence index plot.

Sequence index plots were initially proposed by Scherer (2001); her research

also looked at the transitions of young people from education to work in

Britain (in comparison to Germany). Her concern was to focus on full

trajectories and life courses, as is the concern in this research, avoiding the

commonly ploughed furrow of single event outcomes or centring on single

time points. Also using BHPS data, the author describes the sequence index

plots as 'detailed picture[s]' (Scherer 2001: 129) which 'report the whole

career sequence'. For each individual in the sample, one line is drawn to

represent their status each year. Scherer expresses that the advantage of this

type of graph is that 'it allows for the detailed visual exploration of the typical

trajectories' (2001: 129).
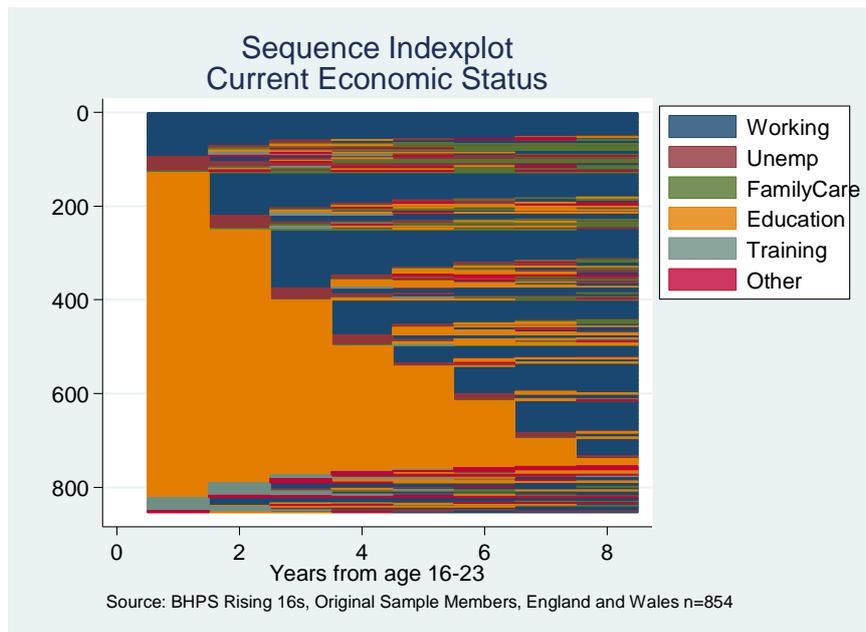
Figure 7.1: Sequence indexplot 1

Before clustering the sequences of the sample of young people into

similar groups, it is advantageous to gain a clear visualization of the

sequences produced by this technique. As presented above in Figure 7.1, the

preliminary indexplot provides a useful graphical representation which

shows the overall picture of the Rising 16's sample. Each horizontal line

represents an individual in the dataset and each status they occupied from

age 16 to 23. The plot is sorted in order of sequence patterns in order that it

is reasonably accessible to examine. The output of the first plot can be

summarized quite simply by referring to the large section representing

education. However, as noted by Furlong and Cartmel (2007), the categories

used here do not allow for changes *within* an element, such as school to FE or

HE. Nonetheless, this diagram can provide a useful visual base with which to move on and categorise the data.

7.2 Optimal Matching

Part of the technique of sequence analysis can involve the exploration of trajectories through comparison of the sequences using Optimal Matching (OM). The technique has been used in similar transition studies (Furlong & Cartmel 2007;Pollock 2007) and effectively measures the dissimilarity between sequences, with a view to further analysis (in this case, cluster analysis). The second index plot (Figure 7.2) is the result of OM between each sequence and the most frequent sequence A measure of the 'distance' from one sequence to the next is generated by calculating the number of changes that would need to be made to the first sequence to convert it to the second. Standard techniques can be employed to construct the distance values consistently across relevant features of the data -(here, 'Indel' costs are set to 1 and 'substitution' costs to 2, see Brzinsky-Fay, Kohler, & Luniak (2006) for further discussion). This approach also standardizes the distances by dividing each distance by the length of the longest sequence (Brzinsky-Fay, Kohler, & Luniak 2006). The variable produced serves to illustrate how far away different sequences are from each other, and is used, amongst other purposes, to order the sequence index plot. The indexplot, then, shows the form of the data once it has been put in order of similarity by the OM command.

The plot in figure 7.2 can at first appear much less solid than the appearance of figure 7.1. It highlights a story of much more broken trajectories, picking up on subtle one wave changes such as short spells in training and possible gap years represented as 'other'.
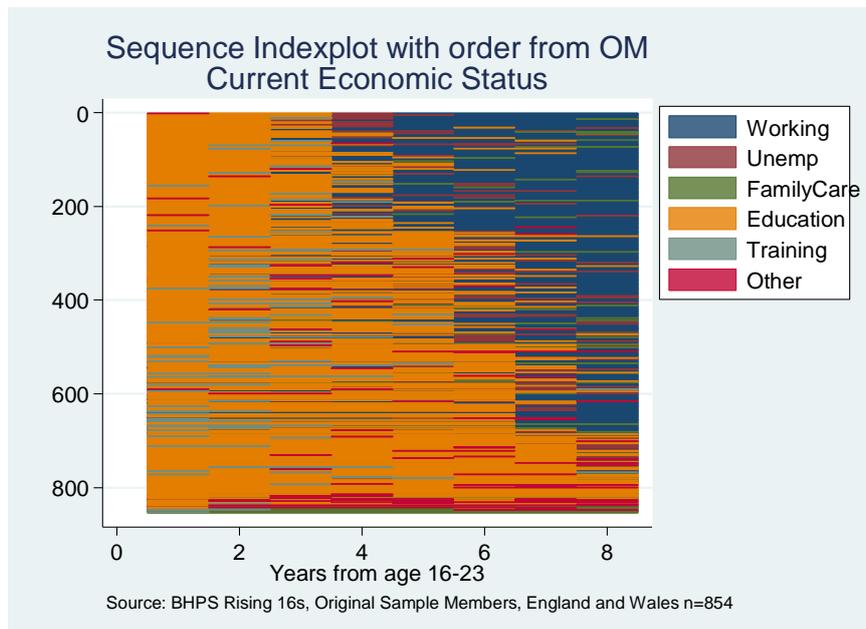

Figure 7.2: Sequence indexplot 2

The final indexplot (figure 7.3) moves a step further by combining the distance from the newly generated variable with the variables containing the length of each element. This shows much more clearly the complexities involved in the trajectories of the Rising 16's. This plot looks far less linear than the plot produced before ordering the sequences. However, it can still be used to describe a far from individualised path for young people, with a clear picture of education running into labour market entry, often only broken by

the different rates at which the young people begin their full time working life. The next section will explore a clustering of groups of sequences, which can be used to define outcomes in subsequent statistical models.
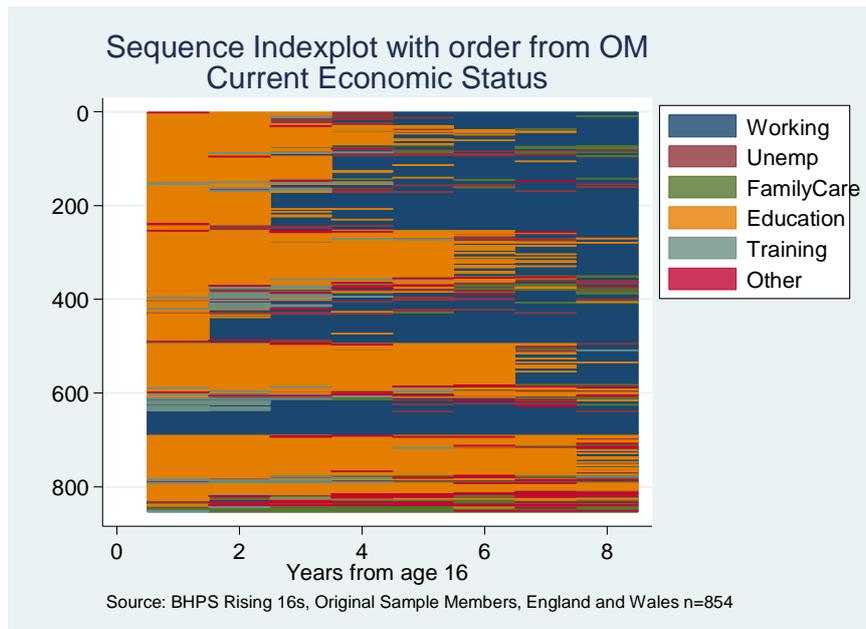

Figure 7.3: OM distance combined with the variables containing length of each element

7.2.1 Typologies

A common further stage within a sequence analysis is to define groups of similar sequences as clusters, and analyse those as outcomes. Different clustering strategies are available. The sq range of commands in the Stata software offers a clustering option and, following the example of Brzinsky-Fay, Kohler and Luniak (2006), this was experimented with. After deliberation, the specialised commands for cluster analysis were used to define clusters and link them with the already sequenced data.

The Stata software used here offers a number of possible linking methods from which I considered four different ways to compare the outcomes. A linkage, or amalgamation, is a rule for how distance between two objects (i.e. clusters or sequences) can be measured. Using single linkage, the distance between two objects is the distance between the closest two items in each object. Complete linkage takes the distance between two objects as the largest distance between any possible pair formed by items from two different objects. The third option undertaken was 'average' linkage, which is where the distance between two objects is the average of all distances between all possible pairs formed by taking one item from each object. Lastly, I experimented with the Ward Method. This groups objects according to the distance between objects (with whatever linkage) but according to the amount of information that would be lost as a result of grouping two objects (Romesburg 1984).

Wards linkage proved most effective and resulted in the most successful number of ties in the analysis. Below, the distribution of the clustered samples is shown by number of categories, including the frequencies of young people in each cluster. The following tables (7.7-7.9) display the 3, 5 and 8 category clusters, firstly in descriptive terms then in proportions while, for Figures 7.4-7.6, dendrograms have been used to show the distribution graphically.

Youth transition typologies: 3 Category Cluster		Freq.	Percent
Direct employment	Typically moved directly into employment aged 16	163	50.78
Labour market to family care	Domestic transitions- leaving the labour market after a short spell for family care	82	25.55
Education long-stayers	Typically stay in education for the full period 16-23. Higher education and beyond	76	23.68
Total		321	100

Table 7.7

Youth transition typologies: 5 Category Cluster		Freq.	Percent
Direct employment	Typically moved directly into employment at age 16	102	31.78
Unemployment	Typically spends long periods in unemployment	61	19
Labour market to family care	Domestic transitions- leaving the labour market after a short spell for family care	52	16.2
Education long-stayers	Typically stay in education for the full period 16-23. Higher education and beyond	30	9.35
Post-comp education to work	Typically having completed one or more years of post-compulsory education before entering the labour market	76	23.68
Total		321	100

Table 7.8

| Youth transition typologies: 8 Category Cluster			
		Freq.	Percent
Direct Employment	Typically moved directly into employment at age 16	52	16.2
Unemployment to employment	Typically encountered periods of unemployment before moving into the labour market	17	5.3
Education to training to employed	Assisted transitions- typically spent periods of time on youth training programmes before entering the labour market	33	10.28
Education to work then other	Typically enters the labour market after a period of education but soon leaves to enter another status	61	19
Education to labour market	Typically a period of extended education before entering the labour market	14	4.36
Family Care	Domestic transitions- typically took time out of the labour market to care for children	38	11.84
Education Long-stayers	Typically stay in education for the full period 16-23. Higher education and beyond	30	9.35
Education to work	Typically a traditional style transition with a period of education then entry into the labour market	76	23.68
Total		321	100

Table 7.9
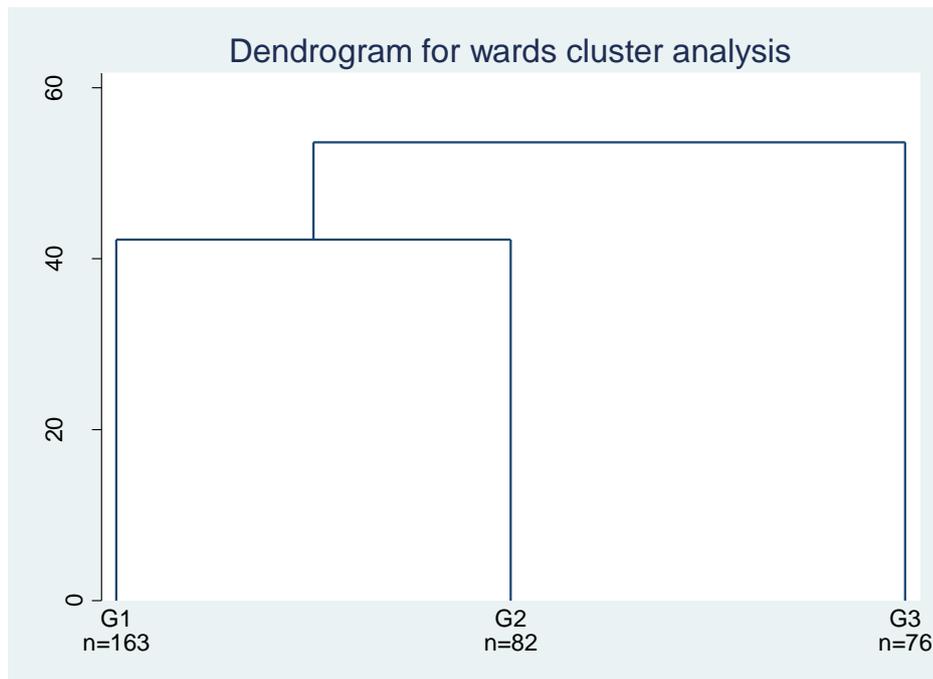
**Figure 7.4: Dendrogram 3 categories**
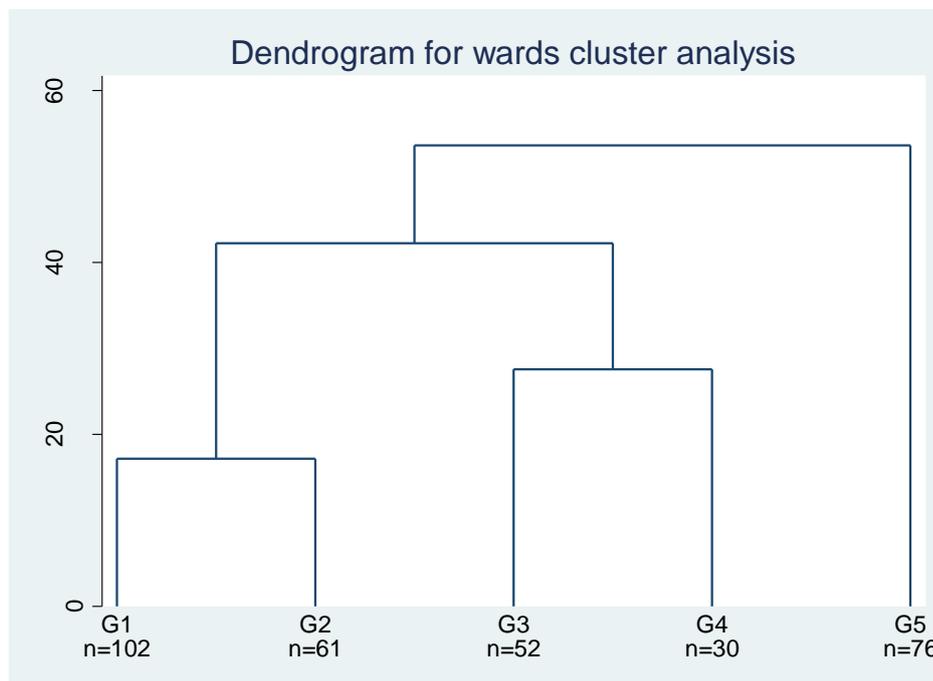


Figure 7.5: Dendrogram 5 categories
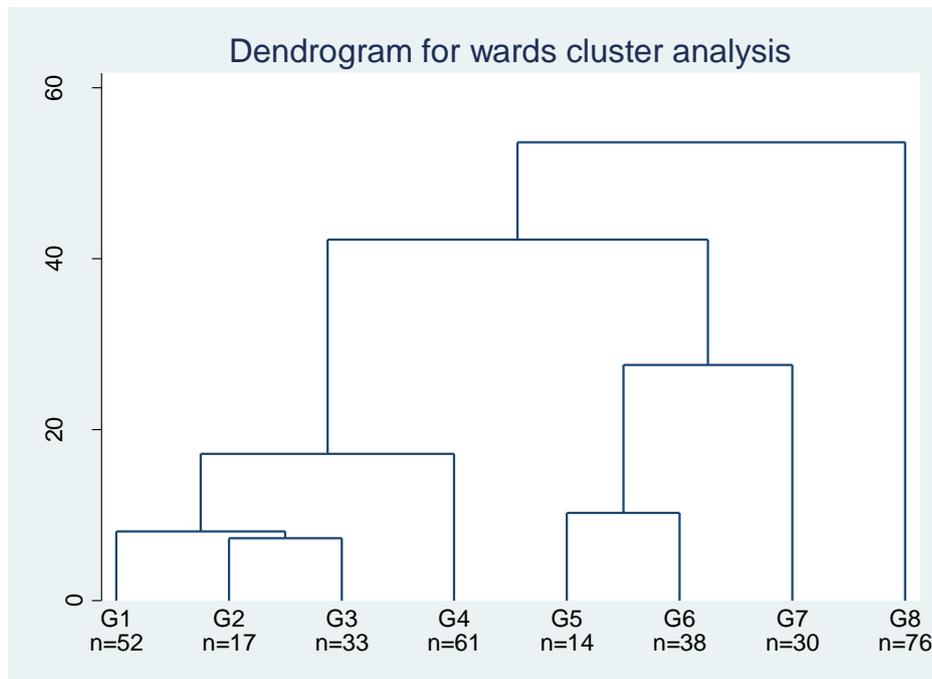
Figure 7.6: Dendrogram 8 categories

The 3 category cluster is divided; 50% in the first category of young

people who are predominantly workers throughout the 8 waves aged 16-23

(titled 'workers'). The remaining 2 categories make up approximately a

quarter each of the young people who move from the labour market to family

care ('Labour market to family care') and those whose trajectories are

dominated by spells in education ('Education Long-stayers').

The 5 category cluster is split slightly more equally, benefiting from

the more detailed level of explanation (Workers; Unemployment; Labour

market to family care; Education long-stayers; Post-16 education to work).

Analysis was also done with an 8 category group to determine the level of

detail most useful (Workers'; 'Unemployment to employment'; 'Education to

work via training'; 'Education to other via work'; 'education to labour

market'; 'family care'; 'education long-stayers'; 'education to work').

On reflection there are, somewhat, subjective boundaries drawn

around the identification of the categories themselves within the typologies

constructed by the software; the category label is identified through

qualitative interpretation of characteristics. Nonetheless, the typologies

closely mirror those constructed by Furlong and Cartmel (2007) and, indeed,

the categories are consistent across each of the differently divided typologies,

there is a clear suggestion of validity and reliability here.

7.2.2 Effects on the routes of young people (parental and household)

The impetus behind using these 'alike' groupings of Rising 16's

described through sequence analysis and gathered through cluster analysis,

is to ascertain whether the differences between the groups of young people

are characterised by background factors, such as the 'traditional markers' of

parental background and gender.

The next section aims to show that, although there may be more

'detraditionalised' trajectories than in previous decades, the effects of social,

parental and household factors are still very much present.

The BHPS is a rich survey data source with multiple forms of

substantively plausible explanatory variables. My model building has been

informed by the position advanced by Agresti and Finlay (1997). They

advocate two basic guidelines: firstly, to include enough explanatory

variables to make the model useful for theoretical and predictive purposes;

second, as counterbalance to the first guideline, to ensure that the model is

parsimonious. Therefore, my overall modelling strategy is to first model the

effects of primary variables that are implicated in the literature, and then to

explore the effects of other additional explanatory variables. As is common in

the analysis of survey data, in some of the applications there are correlations

between explanatory variables. Therefore careful consideration has been

exercised in terms of variable selection and model choice prior to the

interpretation of the preferred statistical models. The next table contains 3

multinomial logistic regressions based on the clustered typologies as

described above.

Multinomial Logistic Regression: effect of family stratification position on youth phase trajectory sequence typology (Base category= education long-stayers; n=76)			
	3 clusters	**5 clusters**	**8 clusters**
Workers *(% of individuals)*	*51%*	*32%*	*16%*
Family CAMSIS score	-0.02*	0.02	0.02
5+ GCSE(A*-C)	-1.95***	0.03	-0.16
Constant	3.05***	0.84	0.37
Labour market to family care	*26%*	*16%*	
Family CAMSIS score	-0.04**	0.00	
5+ GCSE(A*-C)	-2.19***	0.82	
Constant	2.71***	0.44	
Unemployment		*19%*	
Family CAMSIS score		0.02	
5+ GCSE(A*-C)		1.72*	
Constant		0.11	
Post-comp ed to work		*24%*	
Family CAMSIS score		0.04	
5+ GCSE(A*-C)		2.75**	
Constant		-1.74	
Unemployment to employment			*5%*
Family CAMSIS score			0.06
5+ GCSE(A*-C)			0.63
Constant			-2.91*
Education to training to employment			*10%*
Family CAMSIS score			0.01
5+ GCSE(A*-C)			-0.06
Constant			0.30
Education to work to other			*19%*
Family CAMSIS score			0.02
5+ GCSE(A*-C)			1.71*
Constant			0.06
Education to labour market			*4%*
Family CAMSIS score			-0.01
5+ GCSE(A*-C)			1.06
Constant			-0.65
Family Care			*12%*
Family CAMSIS score			0.00
5+ GCSE(A*-C)			0.73
Constant			0.03
Continued …			

Multinomial Logistic Regression: effect of family stratification position on youth phase trajectory sequence typology (Base category= education long-stayers; n=76) (continued)			
Education to work			*24%*
Family CAMSIS score			0.05
5+ GCSE(A*-C)			2.75**
Constant			-1.83
Statistics			
Bic	414.34	645.34	866.69
N	225	225	225
Log likelihood	-191	-290	-376
Pseudo R^2	0.13	0.12	0.10
Base category= education long-stayers (legend:* p<.05; ** p<.01; *** p<.001) Source: BHPS, Rising 16's, Original Sample Members, England and Wales, 1991-2007			

Table 7.10

The first column in table 7.10 shows that parental background is highly significant in explaining the route young people will take in the 3 group cluster. Those in the 'workers' cluster are likely to be more disadvantaged on the CAMSIS scale than the young people staying in education for the long-term and those who move into the labour market early then leave to commit to family care are even more likely to be of a disadvantaged stratification position. These results are net of attainment of 5+ GCSEs, which is also significant in both categories. This suggests both measures are important in the type of trajectory a young person takes.

In the second column, where the outcome measure comprises a 5 group cluster, family background was significant for those falling into the group who have a short spell of post-compulsory education (e.g. A-levels or a college of FE) and then enter the labour market and also into the unemployment cluster. However, with the addition of the GCSE attainment measure, this significance disappears; therefore, in the more detailed 5 category cluster, qualification attainment at 16 overrides family background.

A similar finding is seen in the last column with the 8 category cluster as the outcome. Family background appears to hold no significance at this level, while GCSE attainment shows a small amount of significance in sequence associated with education.

Despite this, the adjusted R^2 declines as the cluster groups get more detailed and, more reliably, the BIC statistic increases. The variety of groups is consequently quite limited. The 3 group cluster shows as much, if not more, than the 8 group cluster. Again, supporting the argument that the routes followed by young people are perhaps not as individualised as often described.

Table 7.11 develops the basic modelling further by adding in 3 other explanatory measures (sex, year completed compulsory schooling (age 16), and attainment of 5 or more GCSEs grades A*-C at 16). The adjusted R^2 doubles. The findings clarify that women are most likely to fall into the group which includes family care and, more strikingly, for those who are in the long-term education cluster, not only is there a significant influence of attainment at age 16, but over and above that, there is a persistent effect of family CAMSIS score. This implies that, despite overcoming disadvantage at 16 and gaining the benchmark 5 or more A*-C GCSEs, a young person is less likely to spend the majority of their years from 16-23 in education if they come from a less advantaged background.

Multinomial Logistic Regression predicting young person trajectory type (age 16-23)		
Ward 3 cluster	**beta**	**SE**
Lab market to family care		
Female	0.86*	0.42
School Year	0.12	0.07
5+ A*-C GCSEs	-0.37	0.45
Family CAMSIS Score (dominance approach)	-0.02	0.02
Constant	-238.81	136.02
Education long-stayers		
Female	-0.14	0.36
School Year	0.1	0.06
5+ A*-C GCSEs	1.93***	0.39
Family CAMSIS Score (dominance approach)	0.03*	0.01
Constant	-198.44	123.53
Source: BHPS Rising 16's, 16-23 years old (1991-2007), England and Wales, Original Sample Members; Log Likelihood:-186; R^2=0.15; n=225		

Table7.11

Finally, the 'model of best fit', illustrated in table 7.12, comprises a

handful of other parental and household variables (many were used from the

wide range available in the BHPS but I have chosen to limit what is shown

here for ease of illustration) and uses the long-term 'stayers' in education as

the base category. The adjusted R^2 improves by a further 6 points. Housing

tenure is seen as significant in both categories, with those living in a rented

home at 16 being less likely to follow a trajectory which includes much post-

compulsory education. School type is also significant, together with family

CAMSIS score, still providing explanatory power despite being mediated by

education, school type and housing tenure.

Multinomial Logistic Regression (model of best fit)		
Ward 3 Cluster	**beta**	**SE**
Workers		
Female	-0.04	0.39
Birth year	-0.11	0.07
5+ A*-C GCSEs	-1.95***	0.43
Family CAMSIS score	-0.01	0.01
Grammar school at 16	-1.03	0.72
Secondary Modern at 16	-0.79	0.53
Independent school at 16	-2.84*	1.21
Rented home at 16	1.37*	0.59
Constant	225.28	134.57
Lab market to family care		
Female	0.80	0.53
Birth year	0.00	0.09
5+ A*-C GCSEs	-2.26***	0.56
Family CAMSIS score	-0.03	0.02
Grammar school at 16	-	-
Secondary Modern at 16	-0.71	0.66
Independent school at 16	-	-
Rented home at 16	1.84**	0.65
Constant	8.88	173.08
Base category= Education long-stayers Source: BHPS Rising 16's, 16-23 years old (1991-2007), England and Wales, Original Sample Members; Log likelihood:-173; R^2=0.21; n=224		

Table 7.12

7.3 Testing the empirical data further with GLLAMM

As a point of comparison, steps were made to model the data using

Generalised Linear Latent and Mixed Models in Stata (Rabe-Hesketh &

Skrondal 2008). Below displays the descriptive variables as they were

included.

We initially estimated a pooled multinomial logistic regression model to the panel data (with robust standard errors to help provide additional control for clustering within individuals). The next step was to extend this model by estimating a random effects multinomial logistic regression using the gllamm facility in Stata, in order to move from descriptive analyses to more comprehensive panel data analyses.

	Obs	Mean	SD	Minimum	Maximum
Pid	18248	3.61	3.14	1	1.04
Year of birth	18248	1978.55	2.79	1975	1984
Sex	18248	1.52	0.5	1	2
Wave	18248	4.5	2.29	1	8
School year	18248	1999.51	3.57	1991	2007
Outcome:					
Current					
Economic Status	18248	2.57	1.49	1	6
SQdist	18248	1.97	0.16	0	2
y1	18248	1.1	1.03	0	3
_est_model1	18248	1	0	1	1
Constant	18248	1	0	1	1
_est_model2	18248	1	0	1	1

Table 7.13

Outcome measure: Current Economic Status		
	Frequency	**Percent**
1.Working	7,830	42.91
2.Unemployed	1,342	7.35
3. Family Care	703	3.85
4. Education	7,873	43.14
5. Training	244	1.34
6. Other	256	1.4
Total	18,248	100

Table 7.14

Pooled Model: Multinomial Logistic Regression		
y1	**Beta**	**SE**
Unemp/training		
Sex	-0.46***	0.06
Wave	0.12***	0.01
Constant	-1.40***	0.10
Working		
Sex	-0.18***	0.03
Wave	0.27***	0.01
Constant	-0.97***	0.06
Family/other		
Sex	1.89***	0.10
Wave	0.28***	0.02
Constant	-6.61***	0.21
n=18248; log likelihood: -18842.17; Pseudo R^2=0.06 (Education is the base outcome)		

Table 7.15

Pooled model with correction for clustering: Multinomial logistic regression						
y1	Beta	Robust Standard Error	Z score	P value	95% Confidence Interval	
					Lower	Upper
Unemp/training						
Sex	-0.46	0.12	-3.85	0.00	-0.69	-0.22
Wave	0.12	0.01	9.45	0.00	0.09	0.14
Constant	-1.40	0.19	-7.53	0.00	-1.76	-1.03
Working						
Sex	-0.18	0.08	-2.28	0.02	-0.33	-0.02
Wave	0.27	0.01	34.82	0.00	0.26	0.29
Constant	-0.97	0.13	-7.64	0.00	-1.21	-0.72
Family/other						
Sex	1.89	0.21	9.19	0.00	1.49	2.29
Wave	0.28	0.02	17.71	0.00	0.24	0.31
Constant	-6.61	0.39	-17.08	0.00	-7.37	-5.85
n= 18248; log pseudo likelihood= -18842.17; Pseudo R^2=0.06 (education= base outcome)						

Table 7.16

On reflection moving to a gllamm framework is intuitively attractive because it places the analyses within the more general framework of panel data modelling. In practical terms this approach was not effective and none of the models converged, and therefore no reliable estimates were produced. It is possible that the complex nature of the panel data being analysed, in terms of large numbers of cases and different volumes of repeatd contacts per case, led to the estimation problems- by contrast the examples used in the established texts usually use small samples and neater examples with few categories of the outcome variable, and limited explanatory variables. Indeed, in the future as these software applications advance it may become easier to

estimate such models for categorical outcomes on large scale datasets. Estimation could perhaps be aided if initial estimates could be produced as effective starting values. In addition the gllamm approach rests on estimation through quadrature (Skrondal & Rabe-Hesketh 2004). This is a reliable but slow method and it is plausible that other estimation procedure (e.g. MCMC) might in future be used to help increase the speed of estimation.

7.4 Findings

Findings in previous chapters have shown the effects of family background and household factors on the outcomes of the BHPS Rising 16's sample of young people growing up in the 1990s and beyond. Educational outcomes were greatly affected by characteristics such as sex and school year, and parental stratification was highly significant at all levels. Progressing through to early career outcomes, analyses showed evidence that the strength of social characteristics such as sex were waning, however, parental background in terms of social stratification still played an instrumental part in predicting the status an individual would be into their mid 20s.

The work in this chapter advances the preceding research by moving beyond cross-sectional analysis of a longitudinal dataset and uses specialised longitudinal techniques to facilitate an examination of a full series of sequences from school age onwards. This could be done in a way that frames the trajectory as a journey rather than defining individuals by the outcome when they get there. This has seldom been done using youth data. Therefore,

this chapter offers an original application of a lesser used technique using an underexploited UK dataset.

The results show that there are 'groupable' clusters which exist in this sample of young people aged 16-23. When using these as outcome measures with statistical modelling techniques, it can be suggested that background factors still have a significant effect on the 'journey' an individual will take. Comparing the 3 clusters linked by Wards linkage, the findings show that the least detailed cluster, 3 categories (as opposed to 5 or 8), provides the most explanatory power in terms of modelling (in terms of R^2).

Parental background is highly significant when used as the only explanatory variable, and shows that those lower down the CAMSIS scale are less likely to be in education for a longer period during their post compulsory education years up to 23. They are more likely to move into the labour market at an earlier stage or have a short spell in work before moving on to start a family. Unsurprisingly, the latter cluster is a female dominated one. Having 5 or more A*-C GCSEs is highly significant in determining whether a young person will spend a large part of their years from 16-23 in education. Also, given the impact found to be had by social, parental and household characteristics on the Rising 16's attainment of GCSEs at 16, this is extremely interesting as being seen as carrying much weight in terms of their overall route. The finding that family CAMSIS score remains significant *net* of this factor for those choosing the long-term education route, highlights further implications for young people NOT part of this cluster.

The linkage to such a wealth of family, social and household measures available in the BHPS provides the opportunity to gain real insight into the factors affecting the outcomes of young people growing up in the 1990s.

A limitation of these techniques is their reliance on the simplified state space. Highlighted by Pollock (2007), a multiple sequence analysis can allow for a larger state space. However, as argued, the 'youth phase' is a period which is characterised by dependence (arguably now extending further) and therefore is difficult to characterize typologies using differences in measures such as marital status and dependent children. Concomitantly, the clustered outcomes can be critiqued as mere simplifications of the sequence comparisons; questioning whether they really inform a sociological argument. In defence, the categories emergent following cluster analysis of the sequenced trajectories are recognisable in their similarity to those produced by Furlong and Cartmel (2007) who had a similar sample of Scottish young people, albeit making their transitions against an earlier background. They claim that the argument of 'individualisation' is supported by their findings; that young people from advantaged backgrounds are more likely to follow linear transitions whereas, it is probable that those from the lower positions of stratification follow non-linear routes (Furlong & Cartmel 2007). The argument here, however, is that young people are still affected by their backgrounds and I contend that this points *against* individualisation rather than for it. Authors such as Beck and Giddens state that young people are making their own paths but are still bound by the structural factors

around them. Furlong and Cartmel conjecture that, although ones background effects which type of transition (linear or non-linear) a young person is on, this is still an example of individualisation. I argue it is the opposite, traditional markers have not weakened; they continue to influence the routes taken by individuals, albeit against a more precarious landscape.

7.5 Conclusions

The Rising 16's sample of young people growing up in the 1990s appear to belong to more homogenous groups than may be imagined when looking at the literature around the transitions of young people. However, it has been suggested that 'individualisation' can be understood not just as people choosing routes unfettered by background factors that previously circumscribed their path, rather, it may be the loosening of the rigid education to employment track that was prevalent in the 70s and 80s (Furlong, Biggart, & Cartmel 1996). Young people's experiences of school to work transitions have changed in recent decades, but it is important to acknowledge the consistencies in order to address the persistent inequalities. Huge numbers still follow a well trodden path from education to work, but at varying paces.

Analysis of the BHPS suggests that young people can reasonably be grouped in a small number of categories of sequences. Differences between these clusters suggests that particular characteristics are continuing to drive individuals into those transitional sequences, shown here by evidence of

basic social, parental and household factors, and the consistency of certain cluster categories such as 'workers' and 'education long-stayers'.

Returning to the opening discussion on the individualisation thesis and 'detraditionalisation', this new evidence is consistent with the narrative that there has been a lengthening of the time spent making education to employment transitions, as sequences often took 5 or more years from education to stable work. Also, whilst some young people do make more non-linear transitions, this is not the case for all young people and the divisions defining which 'type' of trajectory one will have still appears hugely influential. If a young person is from a disadvantaged background it is highly significant that they are less likely to gain the basic qualifications at compulsory schooling level and, even if they do, they still face barriers due to their social background, despite making it further than predicted in their GCSEs. Beck and Giddens contribute to the argument that lifecourse paths can no longer be taken for granted, and this is not denied here, however, evidence in this research shows that the argument put forward by MacDonald is more convincing (2009). He states that a career is a 'middle class expectation' (2009) and any stability or apparent choice is actually masking the move into precarious jobs, which gives an illusion of stability in the trajectories. This is supported by the above models showing that background is still hugely important and decides which cluster an individual is grouped in and also that the categories used do not show changes *within* states (e.g. unstable employment). So, it may be that, as Goldthorpe argues,

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education is less important as an explanatory measure as qualifications are more commonly held. He asserts that other skills are now more important, due to a decline in industries where qualifications are valued (Goldthorpe 2005).

Further research needs to be done in order to fully explore the ideas generated here. This could be developed onward by looking at the 'type' of education the 'long-stayers' and short duration students are in and also to continue to investigate MacDonald's (2009) idea of 'transience' where young, low-paid workers negotiate precarious work through their employment trajectories.

By pulling together the cross-sectional analysis in previous chapters and undertaking an innovative longitudinal data analysis using the overall trajectories of the Rising 16's from age 16-23, a clearer picture of the overall process of youth transitions becomes visible. With less unexplained variance, mentioned by Blau and Duncan as far back as their early research (1967), a piecing together of the effects of such influences as social origins and education is enabled.

Chapter 8: Reflections and Conclusions

This final chapter is divided into two main sections. Firstly, reflections are given on the data requirements and discussion surrounding data management such as the problems and issues raised whilst doing research on youth transitions and education and the labour market using the BHPS. Secondly, conclusions are drawn in order to pull together the argument running throughout this research criticising the 'individualisation thesis' and specifically its 'pillar'-concept of 'detraditionalisation'.

8.1 Reflections of data requirements

8.1.1 Cross Sectional Youth Transitions Research

Using the BHPS for cross sectional analysis allowed an assessment of background effects at set points in time and specific ages which is useful for analysing those in the youth phase of the life-course; age 16 and 18 can be seen as turning points and significant ages where decisions are taken such as, to continue on in education or enter the labour market, and it was seen that the decision at this stage hugely affects outcomes later on. As described in Chapter 4, the 'synthetic cohorts' constructed enabled a more meaningful analysis using school years rather than in terms of calendar years, which ensured that models assessed individual's outcomes after they had had the necessary amount of time to achieve the qualifications ordinarily possible at each point in time. Rose (2000) argues that, to study change at the *individual*

or *micro*-level it is necessary to use a longitudinal survey and, more specifically, a panel study, akin to the BHPS. However, this study makes use of the benefits in both approaches; the study of change and process using the longitudinal advantages of the BHPS is reviewed in the next section. Cross-sections, also noted by Rose (2000), allow an exploration of a population at one or several time points, which is of great interest in this research where the time points in question can be defined as crucial decision making points in the tracks of young people traversing through the 'youth phase'. In this research, exploring a relatively underused sample of young people, the BHPS is also advantageous in terms of the volume of data available in a cross-sectional framework; exploring the outcomes of the young adults at specific points in time are enhanced by sizeable samples and the availability of a wide range of relevant measures.

By cross-sectionally analysing the educational and early labour market outcomes of these 'synthetic cohorts', this research has made a contemporary contribution to youth studies. Descriptive results were seen to be comparable to those of other nationally representative datasets, but the current study advances knowledge further as it allows extended investigation into explanatory factors using household and wider family measures, many of which proved significant in influencing the outcomes at several pivotal time points in the youth transitions.

8.1.2 Longitudinal Youth Transitions Research

In preparing the longitudinal models used above, great care was taken in order to address data and measurement issues which can affect results if not dealt with; for example, optional measurement categories on some variables (such as 'current economic status') change in the lifetime of the BHPS in a minor (but potentially important) way. In addition, even over the short time period examined, significant changes occurred in the underlying distribution of many variables, meaning that controls for time points, and/or standardisation within time points, was used.

Furthermore, in terms of the cohort themselves, by definition the young people are traversing a period in the life course which is volatile, and this is conducive to a high dropout rate from the panel survey. As shown in Chapter 4, the attrition in the BHPS for the Rising 16's cohort is low, especially in comparison with the nationally representative YCS. Casewise deletion was used in this analysis; weights for attrition could have been put to use however, were not here for a number of reasons. Firstly, the BHPS has many weights available for both cross-sectional and longitudinal analysis (Leisering & Leibfried 1999) yet, as the survey is a general resource not specifically suited to youth research, there are not weights specific to these synthetic cohorts constructed specially for this research. Secondly, as the analyses was compared, and deemed comparable, to the YCS (nationally

representative of school leavers in England and Wales), it was felt that the

use of weights would not be of value here.

Using sequence and cluster analysis in Chapter 7 ordinarily requires a

full balanced panel which increases the potential risk of errors arising from

attrition. Nonetheless, as argued, the analysis proves fruitful in generating

typologies of trajectories the young people are taking.

The longitudinal analysis undertaken in this research, therefore,

enables an understanding of contemporary youth transitions that was not

available previously; young people growing up in the 1990s and beyond have

a much more linear and stable trajectory than is suggested in the literature

on 'individualisation' (Beck & Beck-Gernsheim 2002).

8.2 Data Management

The preparation and organisation of the survey datasets, and the

operationalisation of the various measures used across the analysis can

collectively be referred to as the process of data management. This is a labour

intensive activity, particularly because of the wide range of socio-economic

factors under consideration such as different measures of educational

qualification and employment data. The strategies undertaken have

significant implications which could influence the results of analysis, whilst

its clear communication is also critical to supporting replication (Long 2009).

8.2.1 Educational measures

Table 8.1 shows the distribution of the Rising 16's highest educational qualification reached by age 18. wQFACHI is defined as Highest Academic Qualification and is derived from the newly gathered qualification measures each wave. It comprises 7 categories, including no qualifications (Detailed categories can be found in Appendix 3). The data in this variable is up-dated each year to include the most recent qualifications of the respondents. However, when cross tabulating it with the other Highest Educational Qualification variable, wQFEDHI, there are several inconsistencies. There are subtle differences in the measure itself; the wQFACHI categories are defined in line with the General Household Survey and, are derived from the annually collected responses on new qualification attainment. In wQFEDHI however, there are more detailed groupings and attention to Vocational qualifications, leading to 13 options for categorisation (Shown in Appendix 3). The privileging factor of wQFEDHI is that it is used to derive wQFACHI which, therefore, implies supersedence.

Throughout the course of this research, the strategy used was to maximise the opportunities in terms of measures used. Measures for GCSE and A-levels are multiple; split by grades (e.g. A-C, D-G etc) some involve responses gathered only once when the individual first enters the adult survey, and some are repeated annually to pick up on newly gained qualifications. As the Rising 16's synthetic cohort comprises original sample members who enter the survey at 16, it is unlikely that the former measures

will be gainful. However, in the interests of reliability it was decided to include all possibilities and a measure was created combining withstanding and new qualifications. The robustness of the recognised benchmark outcome of 5+ A*-C GCSEs (see Chapter 4), is further ensured by cross checks using the fore mentioned wQFEDHI, singular binary variables (have GCSE A*-C or not) and a measure of the number of GCSEs gained. Likewise, two A-level measures were tested to assess the impact on trends and patterns (see Chapter 4). A huge amount of work and effort was invested in the preparation of educational measures and outcomes and this is evident in the comparability of findings with national representative data.

		wQFEDHI: Highest Educational Qualification							
		Other higher qual	Nursing qual	A-level	O-level	CSE grade 2-5	No qual	No qual/Still at School	missing	Total
wQFACHI : Highest Academic Qualifi-cation	HND,HNC, teaching qual	11	0	0	0	0	0	0	0	11
	A-level	21	11	426	0	0	0	0	1	459
	O level	8	0	15	271	0	0	0	11	305
	CSE	41	0	1	11	76	0	0	11	140
	None of these	0	0	1	1	0	22	11	10	45
	missing	0	0	0	0	0	0	0	71	71
	Total	81	11	443	283	76	22	11	104	1,031

Table 8.1: Crosstabulation of Qualification Measures

8.2.2 Labour Market measures

Chapter 5 dealt with analyses of a variety of early labour market outcomes for the Rising 16's. As with the educational qualification data, there are a number of alternative ways to construct the measures for labour market outcomes. The BHPS has separate records dedicated to job history prior to and between interviews, as well as a large amount of data contained in the household and individual records at the point of interview. An important issue to consider with regards to this research is the young age of the cohort and the relevance of the possible employment status and classification options. As discussed in Chapter 2, there are arguments criticising the use of the common classification schemes and scales for women and many of these arguments hold true for young people also. For instance, mentioned in Chapter 5, a large number of young people are employed whilst also remaining in education (Staff & Mortimer 2007;Stokes & Wyn 2007) and, therefore, their stratification position when young may not reflect their longer-term position. Together with this, and partly because of it, young people tend to be concentrated in particular occupations when they first enter the labour market (Furlong & Cartmel 2007). The measures used in this research combine classification and employment status to ensure as robust as possible measure. Preliminary work was done beforehand with the wide variety of statuses such as current job, first job, most recent job; the last measure was used overall. Measures stating full time employment are also

cross checked with educational variables to validate the claims of current

main status.

8.2.3 Maximising Parental Data

Analyses using labour market position and status as outcomes were

focused on in Chapter 5, however, parental background position (Family

CAMSIS score) is used throughout the research as an explanatory variable.

The dominance approach for this measure, and the advantages connected

with it were discussed at the outset.

Initially, co-resident parents were identified using the individual

records matched via the mother and father identifier pids in the wave the

young person entered the survey. However the BHPS also provides

retrospective 'parental data' (i.e. data on parents, given by children) which

can be extracted to enhance the level of information held on parents.

Through extended efforts in merging information from these sources, it was

possible to increase the coverage of occupational data by 14 cases for

individuals' mothers and 35 cases for individuals' fathers. These were small

numbers but potentially important in a small data set such as this (n=1083).

Most of these cases from the first wave (1991) of the BHPS, and the parents

may not have been co-resident, or they may have not been asked about their

own occupations for some reason, but their children were.

8.2.4 Matching of wider family data

Chapter 6 explores the possibilities of matching the data of the Rising 16's to wider family members aside from parents. Grandparents were successfully linked to a large proportion (90%) of the individuals which facilitated a 3 generation analyses. Siblings were also matched and included in analyses (92%), together with earlier data from the young people themselves gathered in the BYP between the ages of 11-15. This has implications for social research into the intergenerational transmission of inequality; the analyses above have suggested that, net of parental effects, grandparental and sibling influence is still significant on the outcomes of young adults. It is acknowledged that this may be a measurement issue, however, the effects remain consistent and invite further investigation.

In summary, this research has facilitated findings previously unexplored for contemporary data. It shows that the use of a Household Panel Survey holds potential for research into young people, their tracks and trajectories, and investigation into social mobility and the transmission of intergenerational inequality that goes beyond the capabilities of other data resources in this area.

8.3 Methodological Conclusions

This research sought to examine the transmission of intergenerational inequalities for young adults in Britain making the

transition to adulthood in the 1990s and well into the 2000s. The outcomes

reviewed are the educational and early labour market circumstances of the

young adult population of the Rising 16's cohort of the BHPS, with a focus on

exploring intergenerational reproduction of stratification inequalities and

measures which recognise 'tracks and trajectories' of young adults'

outcomes.

The unique opportunity presented by the BHPS dataset is taken

advantage of here in several ways. Firstly, the use of cross-sectional analysis

to ascertain the effects on position of the Rising 16's at specific ages or points

in time, then the matching of data linked to 3 generations of family members

as well as siblings, the linkage to youth data from when the individuals were

in the British Youth Panel aged 11-15, longitudinal analysis to overcome the

origin–destination approach which pervades social mobility research and use

a tracks and trajectories method, and making use of innovative techniques,

such as sequence analysis and cluster analysis. The construction of 'synthetic

cohorts' of young people from BHPS households allowed an analysis of

distinct groups as they come to the end of compulsory education and either

continue in education, or move into employment or other activities. This was

then advanced to explore a number of educational based outcomes that

contribute to an understanding of the 'youth phase' and transitions to

adulthood; compared to the nationally representative YCS, the Rising 16's

were found to follow similar patterns. The opportunities proffered by using a

household panel survey allowed much wider matching of family and

household data, extending analyses and advancing our understanding through the exploration of unexplored factors in contemporary youth research.

Following the comparability of the 'synthetic cohorts' data, the structure of the BHPS allows data on individual young people to be linked with parental and household data. This provides extended opportunities that are not available in existing data resources such as the YCS. A higher level of data quality can also be expected in the BHPS than in the YCS, because data are collected directly from parents within the adult survey data, rather than by asking young people about their parents; as implemented in throughout analysis. Likewise, the BHPS also offers the potential to link young people with wider family members, extending the possible background factors and further validating the argument against individualisation. From this position of validity, educational and early labour market outcomes were explored and finally, longitudinal data analysis was carried out on the overall trajectories of the Rising 16's.

8.4 Substantive conclusions

Gender inequality

Findings confirm that males in Britain fall behind in GCSE attainment (Cassen & Kingdon 2007); this may lead to gender inequalities in options available from age 16 onwards. Despite the positive implications for the 'closing of the gender gap' (Arnot, David, & Weiner 1999), accounting for post

war success and catch up of women, the reverse issue is now a concern

(Gayle, Lambert, & Murray 2009;Warrington & Younger 2000). Status at age

18 shows that boys are more likely to be unemployed or in training at this

point which, discussed in Chapter 5, are traditional outcomes (Bynner, Ferri,

& Shephard 1997). Highest qualification at this age shows less association

with gender; males are less likely to achieve college qualifications rather than

A-levels compared to females but there is no significant difference in other

outcomes. Despite this, females are more likely to achieve A-levels than males

in the binary outcome measure (Department for Children 2010) echoing

recent government results. This is strongly associated net of all other basic

measures and it is also found that an interaction effect exists in the eligibility

outcome; even if they have mothers with the same A-level education or

higher qualification, boys tend to do better than girls. This further supports

the arguments of Lampard(2007) and Kalmijn(1994) who assert the

explanatory power of both sexes of parent and, indeed, the different effects

they can have on the outcome of their offspring.

In terms of early labour market outcomes, results have shown a

difference between the experiences of the sexes. Evidence confirms that

females are staying on later in education and that males are more likely to

enter the labour market at an earlier age than their female counterparts. This,

again, suggests a confirmation of the traditional patterns followed by males,

as mentioned above (Bynner, Ferri, & Shephard 1997). Yet, this also implies

that females are more likely to extend their 'dependent' statuses longer than

males; as Bradley's work asserts, high unemployment can signal an incentive to stay in education, extending the period taken to move from education to employment (Bradley & van Hoof 2005). In terms of stratification position, it was shown that young men are more likely to be in a position of disadvantage if they are in the labour market at a young age, than their female counterparts; they are also more likely to be in manual or low skilled work than women. At both ages 23 and 25, gender significance remains, again with men being disadvantaged. This links to MacDonald's research into 'precarious work' (MacDonald 2009) and the likelihood that males are entering into less stable work and are suffering due to the absence of a distinct 'youth' labour market. Brooks voices that the young and unskilled are hit harder at times of economic downturn (Brooks 2009) and this has serious implications for the young, predominantly male, individuals highlighted here. Blossfeld et al (2005) describes young people, internationally, as labour market 'outsiders' (434).

Interaction effects with gender and stratification position of both parents and grandparents were analysed in Chapter 6. The results showed that young women from more prosperous backgrounds are significantly less advantaged than their male counterparts from a similar background. This pattern is also true when assessing the Cambridge Scale position of grandparents in interaction with gender. Again highlighting the difference in effects between males and females and importance of considering each separately (Biblarz & Raftery 1993).

Despite the significance of gender throughout the exploration of age defined outcomes, this marker does not largely determine the overall track of young people in the Rising 16's cohort, as seen through the results of sequence and cluster analyses. Aside from women being more likely to have a trajectory which includes a period of family care, and the sequences of men being more likely to include a period of unemployment than women, the overall stories are not significantly characterised by gender. This contrasts with the division in the employment related life-course as described by Leisering and Leibfried (1999) in their work on Germany; yet it is important to realise that the tracks explored here are only very early career outcomes. This holds truer when considering the extended period of youth transition for recent cohorts of young people (Brooks 2009).

 Nonetheless, as the labour market is conjectured as one of the 'newer' secondary institutions which Beck purports have replaced traditional markers, and this research suggests supplements them, the implications of the 'status' of unemployed is an area to pick up on for further research. Julkunen (2009) outlines the complexities of youth unemployment in a cross-national comparison and the stark reality of its effects and unequal distribution across young adults is largely entwined in the arguments of uncertainty and 'risk' in the twenty first century (Beck 1992;Blossfeld, Klijzing, Mills, & Kurz 2005;Leisering & Leibfried 1999).

Regardless, this evidence contributes to the argument put forward throughout this thesis; the 'traditional markers' such as gender remain an

influence on the educational and labour market outcomes of young people, if less so on the overall trajectory, at the beginning of the 21st Century when there are arguments of individualisation (Beck & Beck-Gernsheim 2002).

Family Background

Despite the arguments that the influences of family background are weakening (Beck & Beck-Gernsheim 2002), the results to the contrary continue with regards to parental stratification measures. At age 16, GCSE attainment of 5 or more A*-C grades is strongly associated with a position of advantage using the family CAMSIS score and the dominance approach (Erikson 1984). This association becomes cancelled out by parental education, which supports arguments (Kalmijn 1994;Lampard 2007) of those who believe parental education is an alternative, or possibly better, measure with which to measure the transmission of inequality.

 Two years later, at age 18, the patterns of association show the link to CAMSIS remains; stronger for some paths of transition than others. In terms of employment status at 18, those from advantaged backgrounds are less likely to be categorised as unemployed or in training, relatively poorer outcomes than education or employment. Highest qualification at this age also follows this pattern. In this circumstance, CAMSIS score remains significant net of parental education and highly so, in all categories. The more advantaged young people are more likely to be qualified to A-level by 18 than

any other outcome. This also transfers onto the number of A-levels gained and, accordingly, the eligibility for further or higher education at this age. Where it does not seem to have an association is in the logistic regression where the attainment of A-levels is the outcome; this suggests that a young person from an advantaged background is more likely to follow the A-level route but not to automatically gain them, however, if they do, their background goes on to affect how well they achieve and, therefore, their options afterwards.

Family background continues to play a part in the early labour market paths of young people and, indeed, shows no sign of weakening as offspring age into career trajectories. Children from more advantaged backgrounds still tend to begin their experiences of full time, permanent employment in a better position than their less advantaged peers. Of course, much of this is mediated by education and the likelihood that those living in families further up the stratification scale will stay on longer in education. Nonetheless, the second outcome in this chapter (Combination of labour market outcome and educational attainment) shows a similarly familiar story. Those from more disadvantaged families tend to have less educational attainment and also less progress in the labour market.

Family CAMSIS score was used as a control variable in the analyses in Chapter 6 looking at matching wider members of the family. Grandparents' social stratification position showed significance regardless of this in outcomes up to age 25. By the mid 20s, the significance of grandparents

background was confined to the position of the young person rather than the actual main activity they were participating at that age. It can be suggested that by this later stage, employment is a common outcome and the variability comes with where on a stratification scale the occupation lies. Interestingly, it is also shown in Chapter 6 that family CAMSIS score is important within family types; so those from a position of advantage remain advantaged regardless of the family type they live in. Additionally, the consistency of the effects of family stratification position are steady through the longitudinal analyses. In multinomial logistic regressions (Chapter7), family CAMSIS score is a significant explanatory factor in some of the typologies; most noticeably in the trajectories which are heavily characterised by education. That is to say, the young people who follow largely academic path are more likely to be from an advantaged background, whereas the slightly more varied routes are less clearly defined by the position of parents.

Traditional family types

As seen in previous chapters, household data can hold significant influence on the outcomes of the Rising 16's and in this chapter that was extended to family type. Arguments on the negative effects on the non-intact families were rehearsed (Biblarz & Raftery 1993;Biblarz, Raftery, & Bucur 1997;Uhlenberg & Mueller 2003). The BHPS data suggest that young people are significantly likely to do less well when they are brought up in a family type that differs from the 'traditional' two parent model; the 'traditional

marker' of the family remains contributory to the outcomes of young people, throughout the youth phase trajectories. Those raised in a male single parent household or one where neither parent is present are significantly disadvantaged; confirming the results of Biblarz et al. (1997), that to remove mothers from the family type is detrimental to the outcomes of young people. Echoing the point made above, family CAMSIS score is important within all types of family and, consequently, those positioned higher up the stratification scale are more advantaged regardless of family type. This suggests that family background remains an influential effect, net of the effects of family type, questioning the conjecture that intergenerational transmission via non traditional family types is weaker (Dench, Aston, Evans, Meager, Williams, & Willison 2002;Sorensen 2005).

Other notable associations include the pattern of school year (both in cohorts and linearly) being associated with increasing attainment and qualification achievement as years advance. The gradual improvement of educational levels by cohort is well established (Furlong & Cartmel 2007), however, the analyses above also found that later cohorts were also advantaged on the other early labour market outcomes when, even at age 25 in young males from the later cohorts are seen to be more advantaged in their Cambridge Scale position. Yet, there is also evidence shown using cohort in an interaction with the attainment of 5+ GCSEs that the significance comes from the interaction itself. The BHPS however is not designed for

calculating cohort trends in this sort of specialised sub-population analysis, and it seems plausible that attrition or other sampling changes may contribute to this unexpected pattern of cohort change.

GCSE attainment of 5 or more A*-C grades at 16 was found to be hugely influential on outcomes at 18, both as an indicator of a continued status in fulltime education and as one of achieving A-Levels and eligibility. A young person's outcome at 16 is extremely indicative of their route thereafter (Gayle, Lambert, & Murray 2009). The effect of household measures appears weakened as the Rising 16's move beyond GCSE attainment, yet school type remains an associated effect, also found in Drew's research into ethnic minorities and school attainment (1995); suggested as a further measure of family background yet significant net of parental stratification position.

8.5 Implications for future research/ policy makers

The young people considered in this research have and are experiencing their youth phase transitions in the era of the 1990s into the 2000s. They are traversing the change from education to employment at a time when there is mixed, often out-dated, evidence on social mobility in British society; this research contributes to the debate with current data. A contemporary look was provided in relation to intergenerational social mobility and the transmission of inequality, using a wealth of longitudinal data which offers comprehensive background information and potential linkage to wider family members.

The results overall show that there remains a linkage between background factors, some defined as 'traditional markers' (Atkinson 2007a;Beck 1992;Leisering & Leibfried 1999), and both the outcomes of young people at distinct stages of the youth phase, as well as overall tracks followed by young people during this transition period. This holds implications both in terms of policy and future research. The main finding in this research is that 'traditional markers' do still influence the outcome and overall trajectories of young people in today's society. Despite effort by policy makers to quell the effects of the intergenerational transmission of inequality by the promotion of educational opportunities, earlier free nursery places and updated curriculum, as well as the expansion of further and higher education at the other end of the age spectrum, the effects of background factors remain, over and above attainment at age 16. Beck, and others (Beck 1992;Giddens 1991;Leisering & Leibfried 1999), assert that there has been a weakening of the effects of older, more traditional institutions and an end to the relevance of class divisions in modern 'risk society' (Beck 1992). This research has found, however, that background still influences the outcomes and overall trajectories of young adults growing up in 1990s and beyond. Family background, as measured by the dominant CAMSIS score of the young person's parents, remains significant in both cross-sectional and longitudinal analyses of the cohort. Together with these influences, however, are the secondary factors said to replace, but I suggest add to, the effects on the outcomes and trajectories of young people growing up in Britain today. For

example, the contexts of the labour market and further/higher education are difficult to measure but appear to affect pathways by the choices young people make, they can be described as motors in the engine or drivers (Beck & Beck-Gernsheim 2002).

The findings in this research are, of course, not conclusive. As in all social research, further gaps emerge and conjecture is made here to the directions these may go in. Firstly, the findings of links to intergenerational transmission of inequality at a time when arguments are made supporting 'individualisation' and 'detraditionalisation' begs the question to what extent things have changed. Using the results of the analyses of the BHPS Rising 16's synthetic cohorts, comparisons should be possible with earlier cohorts of young people. For example, the National Child Development Study (or the 1958 birth cohort) together with the British Cohort Study of 1970 can be analysed as closely as possible in the manner used here to assess change over time, and this can then be extended to the Millennium Cohort study (2000 birth cohort) as they move increasingly closer to the 'youth phase' in question.

Secondly, despite the subsumption into the UKHLS (offering vast possibility for future longitudinal research into young people and youth transitions), the BHPS sample continue to be followed and this provides huge potential for further research using the Rising 16's. Currently, it is possible to have data on an individual who turned 16 and entered the survey in 1991

right up until they turned 34 in wave 18. Extending this further, from those

who took part in the BYP since its inception in 1994, data analysis is possible

from ages 11-25 and beyond as the survey ages. This supports empirical

research into the lengthening of the 'youth phase' (Brooks 2009) and the

possible weakening of intergenerational effects over a greater period of time

to a great extent.

   Lastly, the results of this research have proffered the potential to

undertake an equivalent analysis using the 'Living in Scotland' subset of the

BHPS data. For ease of comparison, this current project utilised English and

Welsh data only; doing similar work with the Scottish Rising 16's would not

only allow an observation of patterns of inequality using this data and the

uniquely Scottish educational outcomes (Standard Grades and Highers) but

would also provide a means of comparison between England/ Wales and

Scotland.

References

Abbott, A. & Tsay, A. 2000, "Sequence Analysis and Optimal Matching Methods in Sociology: Review and Prospect", *Sociological Methods Research*, vol. 29, no. 3, pp. 3-33.

Abbott, P. 1987, "Women's Social Class Identification: Does Husband's Occupation Make a Difference?", *Sociology*, vol. 29, pp. 91-103.

Acker, J. 1973, "Women and Social Stratification: A Case of Intellectual Sexism", *The American Journal of Sociology*, vol. 78, no. 4, pp. 936-945.

Agresti, A. & Finlay, B. 1997, *Statistical Methods for the Social Sciences*, Third edn, Pearson Education, UK.

Aldridge, S. 2001, *Social Mobility:A discussion paper*, Performance and Innovation Unit, London.

Anker, R. 1998, *Gender and jobs: sex segregation of occupations around the world* International Labour Organisation, Geneva.

Arnot, M., David, M. E., & Weiner, G. 1999, *Closing the gender gap: postwar education and social change* Polity Press, Cambridge.

Arum, R., Gamoran, A., & Shavit, Y. 2007, "More Inclusion Than Diversion: Expansion, Differentiation, and Market Structure in Higher Education," in *Stratification in Higher Education: a comparative study*, Y. Shavit, ed., Stanford University Press, Stanford, pp. 1-35.

Ashford, S., Gray, J., & Tranmer, M. 1993, *The Introduction of GCSE Exams and Changes in Post-16 Participation*, Employment Department, Sheffield, Youth Cohort Report No.23.

Atkinson, W. 2007a, "Beck, Individualization and the Death of Class: A Critique", *The British Journal of Sociology*, vol. 58, no. 3, pp. 349-366.

Atkinson, W. 2007b, "Beyind False Oppositions: A Response to Beck", *The British Journal of Sociology*, vol. 58, no. 4, pp. 707-715.

Banks, M., Bates, I., Breakwell, G., Bynner, J. M., Emler, N., Jamieson, L., & Roberts, K. 1992, *Careers and Identities* Open University Press, Milton Keynes.

Beck, U. 1992, *Risk Society* Sage, London.

Beck, U. 2006, *Cosmopolitan Vision* Polity Press, Cambridge.

Beck, U. 2007, "Beyond class and nation: reframing social inequalities in a globalizing world", *The British Journal of Sociology*, vol. 58, no. 4, pp. 679-705.

Beck, U. & Beck-Gernsheim, E. 2002, *Individualization* Sage, London.

Beck, U. & Willms, J. 2004, *Conversations with Ulrich Beck* Polity Press, Cambridge.

Beller, E. 2009, "Bringing Intergenerational Social Mobility Research into the Twenty-first Century: Why Mothers Matter", *American Sociological Review*, vol. 74, no. 4, pp. 507-528.

Bennett, T., Savage, M., Silva, E., Warde, A., Gayo-Cal, M., & Wright, D. 2009, *Culture, Class, Distinction* Routledge, London.

Bergman, M. M. & Joye, D. 2001, *Comparing Social Stratification Schemas: CAMSIS, CSP-CH, Goldthorpe, ISCO-88, Treiman, and Wright*, Cambridge Studies in Social Research.

Berthoud, R. & Gershuny, J. 2000, *Seven Years in the Lives of British Families* Policy Press, Bristol.

Beutel, A. M. & Anderson, K. G. 2008, "Race and the Educational Expectations of Parents and Children: The Case of South Africa", *The Sociological Quarterly*, vol. 49, pp. 335-361.

Bhattacharyyal, G., Ison, L., & Blair, M. 2003, *Minority Ethnic Attainment and Participation in Education and Training: The Evidence*, Department for Education and Skills, Nottingham, Research Topic Paper RTP01-03.

Biblarz, T. J. & Raftery, A. E. 1993, "The Effects of Family Disruption on Social Mobility", *American Sociological Review*, vol. 58, no. 1, pp. 97-109.

Biblarz, T. J., Raftery, A. E., & Bucur, A. 1997, "Family Structure and Social Mobility", *Social Forces*, vol. 75, no. 4, pp. 1319-1339.

Bihagen, E. 2008, "Does Class Matter Equally for Men and Women?", *Sociology*, vol. 42, no. 3.

Blackburn, R. M., Browne, J., & Brooks, C. 2002, "Explaining Gender Segregation", *British Journal of Sociology*, vol. 53, no. 4, pp. 513-536.

Blackburn, R. M. & Jarman, J. 1997, "Occupational Gender Segregation", *Social Research Update* no. 16.

Blackburn, R. M., Racko, G., & Jarman, J. Gender Inequality at Work in Industrial Countries. 11. 2009. Cambridge Studies in Social Research. Ref Type: Serial (Book,Monograph)

Blanden, J., Gregg, P., & Machin, S. 2005, *Intergenerational Mobility in Europe and North America*, Centre for Economic Performance.

Blanden, J. & Machin, S. 2007, *Recent Changes in Intergenerational Mobility in Britain*.

Blau, P. M. & Duncan, O. D. 1967, *The American Occupational Structure* John Wiley and Sons, London.

Blossfeld, H.-P., Klijzing, E., Mills, M., & Kurz, K. 2005, *Globalization, Uncertainty and Youth in Society* Routledge, London.

Blossfeld, H.-P., Mills, M., & Bernardi, F. 2006, *Globalization, Uncertainty and Men's Careers: An International Comparison* Edward Elgar, Cheltenham.

Blundell, R., Brewer, M., & Francesconi, M. 2004, *Job Changes, Hours Changes and Labour Market Flexibility: Panel Data Evidence for Britain*, The Institute for Fiscal Studies, WP05/12.

Bond, R. & Saunders, P. 1999, "Routes of Success:influences on the occupational attainment of young British males", *British Journal of Sociology*, vol. 50, no. 2, pp. 217-249.

Bottero, W. 2005, *Stratification: Social Division and Inequality* Routledge, London.

Bottero, W., Lambert, P., Prandy, K., & McTaggart, S. 2009, "Occupational Structures: The Stratification Space of Social Interaction," in *Quantifying Theory: Pierre Bourdieu*, K. Robson & C. Sanders, eds., Springer Netherlands, Amsterdam, pp. 141-150.

Bradley, H. & van Hoof, J. 2005, *Young People in Europe* The Policy Press, Bristol.

Bradshaw, J. 2001, *Poverty: The Outcome for Children*, Family Policy Centre and National Children's Bureau.

Brannen, J. & Nilsen, A. 2002, "Young People's Time Perspectives: From Youth to Adulthood", *Sociology*, vol. 36, no. 3, pp. 513-537.

Breen, R. 1996, *Regression Models: Censored, Sample-Selected, or Truncated* Sage.

Breen, R. & Goldthorpe, J. H. 2002, "Merit, mobility and method: another reply to Saunders", *British Journal of Sociology*, vol. 53, no. 4, pp. 575-582.

Breen, R. & Luijkx, R. 2004, "Conclusions," in *Social Mobility in Europe*, R. Breen, ed., Oxford University Press, Oxford, pp. 383-411.

Breen, R. 2004, *Social Mobility in Europe* Oxford University Press, Oxford.

Breen, R. & Jonsson, J. O. 2005, "Inequality of Opportunity in Comparative Perspective: Recent Research on Educational Attainment and Social Mobility", *Annual Review of Sociology*, vol. 31, pp. 223-243.

Breen, R. & Rottman, B. D. 1995, "Social Mobility," in *Class Stratification*, R. Breen & B. D. Rottman, eds., Harvester Wheatsheaf, London, pp. 98-122.

Brewer, M., Clark, T., & Wakefield, M. 2002, "Social security in the UK under new labour: what did the third way mean for welfare reform?", *Fiscal Studies*, vol. 23, no. 4, pp. 505-538.

Brooks, R. 2009, *Transitions from Education to Work: New perspectives from Europe and beyond* Palgrave Macmillan, Hampshire.

Brown, P. & Hesketh, A. 2004, *The Mismanagement of Talent: Employability and Jobs in the Knowledge Economy* Oxford University Press, Oxford.

Brynin, M. 1999, "Smoking behaviour: predisposition or adaption?", *Journal of Adolescence*, vol. 22, pp. 635-646.

Brynin, M. & Ermisch, J. F. 2009, *Changing Relationships* Routledge, London.

Brzinsky-Fay, C., Kohler, U., & Luniak, M. 2006, "Sequence analysis with Stata", *The Stata Journal*, vol. 6, no. 4, pp. 435-460.

Bumpass, L. & Sweet, J. 1989, "National Estimates of Cohabitation", *Demography*, vol. 26, no. 4, pp. 615-625.

Bynner, J. M., Ferri, E., & Shephard, P. 1997, *Twenty- something in the 1990s* Ashgate Publishing Limited, Hampshire.

Bynner, J. M. & Roberts, K. 1991, *Youth and Work: Transitions to Employment in England and Germany* Anglo-German Foundation, London.

Cassen, R. & Kingdon, G. 2007, *Tackling low educational achievement*, Joseph Rowntree Foundation, York.

Casson, M. 1979, *Youth Unemployment* Macmillan, London.

Chan, T. W. 2010, *Social Status and Cultural Consumption* Cambridge University Press, Cambridge.

Cheng, S. & Starks, B. 2002, "Racial Differences in the Effects of Significant Others on Students' Educational Expectations", *Sociology of Education*, vol. 75, no. 4, pp. 306-327.

Cherlin, A. J., Furstenberg, F. F. Jr., Chase-Lansdale, P. L., Kiernan, K. E., Robins, P. K., Morrison, D. R., & Teitler, J. O. Longitudinal Studies of Effects of Divorce on Children in Great Britain and the United States. Science 252, 1386-1389. 1991.
Ref Type: Magazine Article

Cheung, S. Y. & Egerton, M. 2007, "Great Britain: Higher Education Expansion and Reform- Changing Educational Inequalities," in *Stratification in Higher Education: a comparative study*, Y. Shavit, ed., Stanford University Press, Stanford, pp. 195-219.

Child Poverty Action Group (CPAG) 1998, *Jobseeker's Allowance Handbook* CPAG, London.

Connolly, P. 2006, "The effects of social class and ethnicity on gender differences in GCSE attainment: a secondary analysis of the Youth Cohort Study of England and Wales 1997-2001", *British Educational Research Journal*, vol. 32, no. 1, pp. 3-21.

Couppie, T. & Mansuy, M. 2003, "Young people and new entrants in European labour markets: the timing of gradual integration," in *Transitions from Education to Work in Europe*, W. Muller & M. Gangl, eds., Oxford University Press, Oxford, pp. 63-106.

Croll, P. 2008, "Occupational choice, socio-economic status and educational attainment: a study of occupational choices and destinations of young people in the British Household Panel Survey", *Research Papers in Education*, vol. 23, no. 3, pp. 243-268.

Crompton, R. 1998, *Class and Stratification* Polity, Cambridge.

Croxford, L., Iannelli, C., & Shapira, M. Youth Cohort Time Series for England, Wales amd Scotland, 1984-2002. National Centre for Social Research, Scottish Centre for Social Research, University of Edinburgh. Centre for Educational Sociology. 2007. Colchester,Essex, UK Data Archive.
Ref Type: Data File

Curtis, P. University aspiration gap stays stubbornly wide. The Guardian . 7-4-2008.
Ref Type: Newspaper

Dale, A. 1990, "Stratification over the Life-course: Gender Differences within the Household," in *The Social Mobility of Women: Beyond Male Mobility Models*, G. Payne & P. Abbott, eds., Falmer, London.

Dale, A., Arber, S., & Proctor, M. 1988, *Doing Secondary Analysis* Unwin Hyman Ltd, London.

Dale, A. & Davies, R. B. 1994, *Analyzing Social and Political Change* Sage, London.

Dale, A., Gilbert, N., & Arber, S. 1985, "Integrating Women into Class Theory", *Sociology*, vol. 19, no. 3, pp. 384-409.

Deem, R. 1980, *Schooling for Women's Work* Routledge & Kegan Paul, London.

Delphy, C. 1991, "Women in Stratification Studies," in *Doing Feminist Research*, 2nd edn, H. Roberts, ed., Routledge and Kegan Paul, London, pp. 114-128.

Dench, S., Aston, J., Evans, C., Meager, N., Williams, M., & Willison, R. 2002, *Key Indicators of Women's Position in Britain*, Department of Trade and Industry, London.

Department for Children, S. a. F. D. 2010, *GCE/Applied GCE A/AS and equivalent examination results in England, 2008/09 (Revised)*.

Department of Education 1985, *General Certificate of Secondary Education: A general introduction*, Her Majesty's Stationery Office, London.

Department of Employment 1993, *Labour Market and Skill Trends*, Skills and Enterprise Network, Nottingham.

Devine, F. 2004, *Class Practices: How Parents Help Their Children Get Good Jobs* Cambridge University Press, Cambridge.

Dex, S. 1985, "Which Class?," in *The Sexual Division of Work*, Wheatsheaf Books, Sussex, pp. 143-173.

Dex, S. 1991, *The Reliability of Recall Data: A Literature Review*, University of Essex, Colchester.

Drew, D. 1995, *'Race' Education and work: the statistics of inequality* Avebury, Aldershot.

Drew, D., Gray, J., & Sime, N. 1992, *Against the Odds: The Education and Labour Market Experiences of Black Young People* Employment Department Training Research and Development Series.

Duncan, B. & Duncan, O. D. 1969, "Family Stability and Occupational Success", *Social Problems*, vol. 16, pp. 273-285.

Dwyer, P. & Wyn, J. 2001, *Youth,education and risk: facing the future* Routledge, London.

Elias, P., McKnight, A., Pitcher, J., Purcell, K., & Simm, C. 1999, *Moving On: graduate careers three years after graduation*, CSU/DfEE, Manchester.

Elias, P. & Purcell, K. 2004, *SOC(HE): A classification of occupations for studying the graduate labour market* Research paper No. 6.

Erikson, R. & Goldthorpe, J. H. 1992a, *The Constant Flux: A Study of Class Mobility in Industrial Societies* Clarendon Press, Oxford.

Erikson, R., Goldthorpe, J. H., & Portocarero, L. 1979, "Intergenerational class mobility in three Western European Societies: England, France and Sweden", *British Journal of Sociology*, vol. 30, pp. 415-440.

Erikson, R. 1984, "Social Class of Men, Women and Families", *Sociology*, vol. 18, no. 4, pp. 500-514.

Erikson, R. & Goldthorpe, J. H. 1992b, "Individual or Family? results from Two Approaches to Class Assignment", *Acta Sociologica*, vol. 35, pp. 95-105.

Evans, K. 2007, "Concepts of bounded agency in education, work, and the personal lives of young adults'", *International Journal of Psychology*, vol. 42, no. 2, pp. 85-93.

Evans, K. & Furlong, A. "Metaphors of Youth Transition: Niches, Pathways, Trajectories or Navigation", in *British Youth Research: A New Agenda*, Glasgow University.

Evans, K. & Rudd, P. "Structure and Agency in Young Adult Transitions", in *Social Research Association Conference*, San Diego.

Finn, D. (1987) *Training without jobs: New deals and broken promises; from raising the school leaving age to the Youth Training Scheme*, London: Macmillan.

Fraser, N. 2004, "Britain's new deals", *International Journal of Manpower*, vol. 25, no. 5, pp. 387-391.

Furlong, A., Biggart, A., & Cartmel, F. 1996, "Neighbourhoods, Opportunity Structures and Occupational Aspirations", *Sociology*, vol. 30, no. 3, pp. 551-565.

Furlong, A. & Cartmel, F. 1997, *Young People and Social Change: individualisation and risk in late modernity* Open University Press, Buckingham.

Furlong, A. & Cartmel, F. 2007, *Young People and Social Change: new perspectives*, 2nd edn, Open University Press/McGraw Hill, Berkshire.

Furlong, A., Cartmel, F., Biggart, A., Sweeting, H., & West, P. 2003, *Reconceptualising Youth Transitions: Patterns of Vulnerability and Processes of Social Exclusion*, Scottish Executive, Edinburgh.

Further Education Funding Council (FEFC) 2000, *Citizenship for 16-19 Year Olds in Education and Training*, Further Education Funding Council, Coventry.

Garasky, S. 1995, "The Effects of Family Structure on Educational Attainment", *American Journal of Economics and Sociology*, vol. 54, no. 1, pp. 89-105.

Garnsey, E. 1978, "Women's Work and Theories of Class Stratification", *Sociology*, vol. 12, no. 2, pp. 223-243.

Gayle, V. 2005, "Youth Transitions," in *Changing Scotland: Evidence from the British Household Panel Survey*, J. F. Ermisch & R. E. Wright, eds., The Policy Press, Bristol, pp. 33-46.

Gayle, V., Berridge, D., & Davies, R. B. 2003, *Econometric Analysis of the Demand for Higher Education*, DfES Publications, Nottingham, RR472.

Gayle, V. & Lambert, P. 2007, "Using Quasi-Variance to Communicate Sociological Results from Statistical Models", *Sociology*, vol. 41, no. 6, pp. 1191-1206.

Gayle, V., Lambert, P., & Murray, S. 2009, "School-to-Work in the 1990s: Modelling Transitions with large-scale datasets," in *Transitions from Education to Work: New Perspectives from Europe and Beyond*, R. Brook, ed., Palgrave Macmillan.

Giddens, A. 1991, *Modernity and Self Identity- Self and Society in the Late Modern Age* Polity, Cambridge.

Gillborn, D. & Gipps, C. 1996, *Recent Research on the Achievements of Ethnic Minority Pupils*, HMSO, London.

Glass, D. V. 1954, *Social Mobility in Britain* Routledge and Kegan Paul Ltd., London.

Glass, D. V. & Hall, J. R. 1954, "Social Mobility in Great Britain: A Study of Inter-Generation Changes in Status," in *Social Mobility in Britain*, D. V. Glass, ed., Routledge and Kegan Paul Ltd., London, pp. 177-265.

Goldthorpe, J. H. Women and Class Analysis: In defence of the conventional view. Sociology 17[4], 465-488. 1983.
Ref Type: Journal (Full)

Goldthorpe, J. H. 1984, "Women and Class Analysis: A reply to the replies", *Sociology*, vol. 18.

Goldthorpe, J. H. 2005, "Progress in Sociology: The case of social mobility research," in *Analyzing Inequality*, S. Svallfors, ed., Stanford University Press, Stanford, pp. 56-82.

Goldthorpe, J. H. & Jackson, M. 2007, "Intergenerational class mobility in contemporary Britain: political concerns and empirical findings", *The British Journal of Sociology*, vol. 58, no. 4, pp. 525-546.

Goldthorpe, J. H., Llewellyn, C., & Payne, C. 1980, *Social Mobility and Class Structure in Modern Britain*, 2nd edn, Clarendon Press, Oxford.

Goldthorpe, J. H. & Mills, C. 2004, "Trends in Intergenerational Class Mobility in Britain in the Late Twentieth Century," in *Social Mobility in Europe*, R. Breen, ed., Oxford University Press, Oxford, pp. 195-224.

Goldthorpe, J. 2000, "Outline of a Theory of Social Mobility," in *On Sociology: Numbers, Narratives, and the Integration of Research and Theory*, Oxford University Press, Oxford, pp. 230-258.

Goldthorpe, J. & Payne, C. 1986, "On the Class Mobility of Women: Results from Different Approaches to the Analysis of Recent British Data", *Sociology*, vol. 20, no. 4, pp. 531-555.

Goode, W. J. 1966, "Family and Mobility," in *Class, Status and Power: Social Stratification in Comparartive Perspective*, 2nd edn, R. Bendix & S. M. Lipset, eds., Routledge and Kegan Paul, London.

Grenfell, M. & James, D. 1998, *Bourdieu and education* Falmer Press, London.

Griffin, C. 1985, *Typical girls? Young women from school to the job market* Routledge & Kegan Paul, London.

Halpin, B. British Household Panel Survey Combined Work-Life History Data, 1990-2005, 5th ed. [SN: 3954], -UK Data Archive. 2006. Colchester, Essex, Institute for Social and Economic Research.

Halsey, A. H., Heath, A. F., & Ridge, J. M. 1980, *Origins and Destinations* Oxford University Press, Oxford.

Hanson, S. L. 1994, "Lost Talent: Unrealized Educational Aspirations and Expectations among U.S. Youths", *Sociology of Education*, vol. 67, no. 3, pp. 159-183.

Haug, M. R. 1977, "Measurement in Social Stratification", *Annual Review of Sociology*, vol. 3, pp. 51-77.

Hayes, B. C. & Miller, R. L. 1989, "Intergenerational Occupational Mobility Within the Republic of Ireland", *Women's Studies International Forum*, vol. 12, no. 4, pp. 439-445.

Hayes, B. C. & Miller, R. L. 1993, "The Silenced Voice: Female Social Mobility Patterns with Particular Reference to the British Isles", *British Journal of Sociology*, vol. 44, no. 4, pp. 653-671.

Heath, A. 1981, "The Mobility of Women," in *Social Mobility*, Fontana, London, pp. 107-136.

Heath, A. & Payne, C. 2000, "Social Mobility," in *Twentieth-century British Social Trends*, 3rd edn, A. H. Halsey & J. Webb, eds., Macmillan Press, Basingstoke, pp. 254-280.

Heckman, J. J. 1979, "Sample Selection Bias as a Specification Error", *Econometrica*, vol. 47, no. 1, pp. 153-161.

Heitmueller, A. 2004, "Job Mobility in Britain: Are the Scots Different? Evidence from the BHPS", *Scottish Journal of Political Economy*, vol. 51, no. 3, pp. 329-358.

Hill, M. S., Servais, M. A., & Solenberger, P. 2000, "Tangled webs of family relationships: Untangling them with survey data," in *Researching Social and Economic Change: The Uses of Household Panel Studies*, D. Rose, ed., Routledge, London, pp. 126-145.

Hillmert, S. 2008, "Links between demographic behavior and social mobility in 20th century Germany", in *The 7th European Social Science History Conference (ESSHC)*.

Hills, J., Sefton, T., & Stewart, K. 2009a, *A More Equal Society? New Labour, poverty, inequality and exclusion*, 2nd edn, Policy Press, Bristol.

Hills, J., Sefton, T., & Stewart, K. 2009b, *Towards a more equal society? : Poverty, inequality and policy since 1997* The Policy Press, Bristol.

Hollands, R. 1990, *The Long Transition: Class, culture and youth training* Macmillan, Basingstoke.

Hout, M. & DiPrete, T. A. 2006, "What we have learned:RC28s contributions to knowledge about social stratification", *Research into Social Stratification and Mobility*, vol. 24, pp. 1-20.

Hout, M., Brooks, C., & Manza, J. 1996, "The Persistence of Classes in Post-industrial Societies," in *Conflicts about class*, D. J. Lee & B. S. Turner, eds., Longman, Essex, pp. 49-59.

Institute for Employment Research (IER) 1999, *Young People, Employment Programmes and the New Deal*, Institute for Employment Research, 49.

Jacobs, J. A., Karen, D., & McClelland, K. 1991, "The Dynamics of Young Men's Career Aspirations", *Sociological Forum*, vol. 6, no. 4, pp. 609-639.

Jenkins, R. 2003, "Symbolic Violence and Social Reproduction," in *Pierre Bourdieu*, 2nd edn, R. Jenkins, ed., Routledge, London, pp. 103-127.

Jenkins, S., Pereira, I., & Evans, N. 2009, *Families in Britain*, Ipsos Mori; Policy Exchange.

Joshi, H. & Paci, P. 1997, "Life in the Labour Market," in *Twenty-something in the 1990s*, J. M. Bynner, E. Ferri, & P. Shepherd, eds., Ashgate, Hampshire, pp. 31-52.

Julkunen, I. 2009, "Youth unemployment and marginalization," in *Handbook of Youth and Young Adulthood*, A. Furlong, ed., Routledge, London, pp. 157-166.

Kalmijn, M. 1994, "Mother's Occupational Status and Children's Schooling", *American Sociological Review*, vol. 59, no. 2, pp. 257-275.

Kiernan, K. 2000, "European Perspectives on Union Formation," in *The Ties That Bind: perspectives on marriage and cohabitation*, L. Waite, ed., Walter de Gruyter Inc., New York, pp. 40-58.

Kim, D. H. & Schneider, B. 2005, "Social Capital in Action", *Social Forces*, vol. 84, no. 2, pp. 1181-1206.

Lambert, P. CAMSIS: Social Interaction and Stratification Scale. http://www.camsis.stir.ac.uk/ . 2008.

Lambert, P. The British Household Panel Survey: Introduction to a longitudinal data resource. 2006.
Ref Type: Generic

Lambert, P., Prandy, K., & Bottero, W. 2007, "By Slow Degrees: Two Centuries of Social Reproduction and Mobility", *Sociological Research Online*, vol. 12, no. 1.

Lampard, R. 1995, "Parents' Occupations and Their Children's Occupational Attainment: A Contribution to the Debate on the Class Assignment of Families", *Sociology*, vol. 29, no. 4, pp. 715-728.

Lampard, R. 2007, "Is Social Mobility an Echo of Educational Mobility? Parents' Educations and Occupations and Their Children's Occupational Attainment", *Sociological Research Online*, vol. 12, no. 5, pp. 1-31.

Leckie, G. & Goldstein, H. 2009, "The limitations of using school league tables to inform school choices", *Journal of the Royal Statistical Society Series A*, vol. 172, no. 4, pp. 835-851.

Leisering, L. & Leibfried, S. 1999, *Time and Poverty in Western Welfare States: United Germany in Perspective* Cambridge University Press, Cambridge.

Lenski, G. E. 1966, *Power and Privilege: A Theory of Social Stratification* McGraw-Hill, USA.

Lipset, S. M. & Bendix, R. 1967, *Social Mobility in Industrial Society*, 6th edn, University of California Press, California.

Long, J. S. 2009, *The Workflow of Data Analysis Using Stata* CRC Press, Boca Raton.

MacDonald, R. 1999, "The road to nowhere: youth, insecurity and marginal transitions," in *Insecure Times - Living With Insecurity In Contemporary Society*, J. Vail, J. Wheelock, & M. Hill, eds., Routledge, London, pp. 169-183.

MacDonald, R. 2009, "Precarious Work: Risk, choice and poverty traps," in *Handbook of Youth and Young Adulthood*, A. Furlong, ed., Routledge, London, pp. 167-175.

MacDonald, R; Banks, S; Hollands, R. (1993) "Youth and Policy in the 1990s", in *Youth and Policy, vol. 40, pp. 1-9.*

MacDonald, R. & Marsh, J. 2005, "Young People, Transitions and Social Change: Researching Disconnected Youth," in *Disconnected Youth? Growing up in Britain's poor neighbourhoods*, R. MacDonald & J. Marsh, eds., Palgrave Macmillan, Basingstoke, p. 25.

Magnusson, D. & Bergman, L. R. 1990, *Data Quality in Longitudinal Research* Cambridge University Press, Cambridge.

Marini, M. M. 1980, "Sex Differences in the Process of Occupational Attainment: A Closer Look", *Social Science Research*, vol. 9, pp. 307-361.

Marshall, G. 1997, *Repositioning Class* Sage, London.

Marshall, G., Swift, A., & Roberts, S. 1997, "Class Mobility," in *Against the Odds? Social Class and Social Justice in Industrial Societies*, G. Marshall, A. Swift, & S. Roberts, eds., Clarendon, Oxford, pp. 36-69.

McClelland, K. 1990, "Cumulative Disadvantage Among the Highly Ambitious", *Sociology of Education*, vol. 63, no. 2, pp. 102-121.

McLanahan, S. S. & Bumpass, L. 1988, "Intergenerational Consequences of Family Disruption", *The American Journal of Sociology*, vol. 94, no. 1, pp. 130-152.

McVicar, D. & Anyadike-Danes, M. 2002, "Predicting Successful and Unsuccessful Transitions from School to Work by Using Sequence Methods", *Journal of the Royal Statistical Society Series A*, vol. 165, no. 2, pp. 317-334.

Mills, C. 2008, "Reproduction and transformation of inequalities in schooling: the transformative potential of the theoretical constructs of Bourdieu", *British Journal of Sociology of Education*, vol. 29, no. 1, pp. 79-89.

Mizen, P. 2004, *The Changing State of Youth* Palgrave, Basingstoke.

Mobley, M., Emerson, C., Goddard, I., Goodwin, S., & Letch, R. 1986, *All about GCSE- A clear and concise summary of all the basic information about GCSE* Heinemann, London.

Morgan, S. L. 1996, "Trends in Black-White Differences in Educational Expectations: 1980-92", *Sociology of Education*, vol. 69, no. 4, pp. 308-319.

Mukherjee, R. 1954, "A Study of Social Mobility Between Three Generations," in *Social Mobility in Britain*, D. V. Glass, ed., Routledge and Kegan Paul Ltd., London, pp. 266-287.

Muller, W., Steinemann, S., & Renate, E. 1998, "Education and labour-market entry in Germany," in *From School to Work*, Y. Shavit & W. Muller, eds., Clarendon Press, Oxford.

Nadari, H., Abdullah, R., Aizan, H. T., Shavir, J., & Kumar, V. 2009, "Self Esteem, Gender and Academic Achievement of Undergraduate Students", *American Journal of Scientific Research*, vol. 3, pp. 26-37.

Nicoletti, C. & Ermisch, J. F. 2008, "Intergenerational Earnings Mobility: Changes across Cohorts in Britain", *The B.E.Journal of Economic Analysis and Policy*, vol. 7, no. 2.

North, J. 1987, *The GCSE: An Examination* The Clarridge Press, London.

Pahl, R. & Pevalin, D. J. 2005, "Between family and friends: a longitudinal study of friendship choice", *The British Journal of Sociology*, vol. 56, no. 3, pp. 433-450.

Parkin, F. 1971, *Class Inequality and Political Order* Granada, London.

Payne, G. & Abbott, P. 1990, *The Social Mobility of Women* Falmer Press, London.

Payne, G. & Roberts, J. 2002, "Opening and Closing the Gates: Recent Developments in Male Social Mobility in Britain", *Sociological Research Online*, vol. 6, no. 4.

Pearce, N. & Paxton, W. 2005, *Social Justice: Building a fairer Britain* Politicos/Institute for Public Policy Research, London.

Penn, R. 1985, *Skilled Workers in the Class Structure* Cambridge University Press, Cambridge.

Penn, R. & Lambert, P. 2009, *Children of International Migrants in Europe: Comparative perspectives* Palgrave Macmillan, Basingstoke.

Pollock, G. 2007, "Holistic trajectories: a study of combined employment, housing and family careers by using multiple-sequence analysis", *Journal of the Royal Statistical Society*, vol. 170, no. 1, pp. 167-183.

Popenoe, D. 1988, *Disturbing the nest: family change and decline in modern societies* Aldine de Gruyter, New York.

Powell, B. & Steelman, L. C. 1993, "The Educational Benefits of Being Spaced Out: Sibship Density and Educational Progress", *American Sociological Review*, vol. 58, no. 3, pp. 367-381.

Prandy, K. 1986, "Similarities of life-style and the occupations of women," in *Gender and Stratification*, R. Crompton & M. Mann, eds., Polity, Cambridge.

Prandy, K. 1990, "The Revised Cambridge Scale of Occupations", *Sociology*, vol. 24, no. 4, pp. 629-655.

Prandy, K. 1999, "The Social Interaction Approach to the Measurement and Analysis of Social Stratification", *International Journal of Sociology and Social Policy*, vol. 19, no. 9/10/11, pp. 204-236.

Prandy, K. & Bottero, W. 2000, "Social Reproduction and Mobility in Britain and Ireland in the Nineteenth and Early Twentieth Centuries", *Sociology*, vol. 34, no. 2, pp. 265-281.

Purcell, K. & Elias, P. 2004, *Seven Years On: Graduate Careers in a Changing Labour Market*, The Higher Education Careers Services Unit.

Rabe-Hesketh, S. & Skrondal, A. 2008, *Multilevel and Longitudinal Modelling Using Stata*, 2nd edn, Stata Press, Texas.

Rafferty, A. 2007, *Analysing Change Over Time: A guide to ESDS resources*, ESDS, G11.

Raftery, A. E. 2001, "Statistics in Sociology, 1950-2000: A selective review", *Sociological Methodology*, vol. 31, pp. 1-46.

Reynolds, J., Stewart, M., Macdonald, R., & Sischo, L. 2006, "Have Adolescents Become Too Ambitious? High School Seniors' Educational and Occupational Plans, 1976 to 2000", *Social Problems*, vol. 53, no. 2, pp. 186-206.

Richardson, C. J. 1977, *Contemporary Social Mobility* Frances Pinter, London.

Ridge, J. M. 1974, "Three Generations," in *Mobility in Britain Reconsidered*, J. M. Ridge, ed., Clarendon Press, Oxford.

Riley, R. & Young, G. 2001, *Does Welfare-to-Work Policy Increase Employment? Evidence for the UK New Deal for Young People* 183.

Rindfuss, R. R., Cooksey, E. C., & Sutterlin, R. L. 1999, "Young Adult Occupational Achievement: Early Expectations Versus Behavioral Reality", *Work and Occupations*, vol. 26, no. 2, pp. 220-263.

Roberts, K. 1984, *School Leavers and their Prospects- Youth and the Labour Market in the 1980s* Open University Press, Milton Keynes.

Roberts, K. 2006, "Youth Transitions and Generations: A response to Wyn and Woodman", *Journal of Youth Studies*, vol. 10, no. 2, pp. 263-269.

Roberts, K., Clark, S. C., & Wallace, C. 1994, "Flexibility and Individualization: A Comparison of Transitions into Employment in England and Germany", *Sociology*, vol. 28, no. 1, pp. 31-55.

Roberts, K. 2001, *Class in Modern Britain* Palgrave, Hampshire.

Romesburg, C. 1984, *Cluster Analysis for Researchers* Wandsworth.

Rose, D. 2000, *Researching Social and Economic Change* Routledge, London.

Rose, D. & Harrison, E. 2007, "The European Socio-economic Classification: A New Social Class Scheme for Comparative European Research", *European Societies*, vol. 9, no. 3, pp. 459-490.

Rose, D. & Pevalin, D. J. 2003, *A researcher's guide to the national statistics socio-economic classification* Sage, London.

Rose, D., Buck, N., & Corti, L. Design Issues in the British Household Panel Study. 20. 1991. Colchester, University of Essex.
Ref Type: Generic

Rose, D. & Pevalin, D. J. 2001, *The National Statistics Socio-economic Classification: Unifying Official and Sociological Approaches to the Conceptualisation and Measurement of Social Class*, University of Essex, Colchester, 4.

Rose, D., Pevalin, D. J., & O'Reilly, K. 2001, *A Brief History of the ESRC Review of Government Social Classification*.

Rosen, B. C. & Aneshensel, C. S. 1978, "Sex Differences in the Educational-Occupational Expectation Process", *Social Forces*, vol. 57, no. 1, pp. 164-186.

Rosenfeld, R. A. 1978, "Women's Intergenerational Occupational Mobility", *American Sociological Review*, vol. 43, no. 1, pp. 36-46.

Ryder, N. B. 1965, "The Cohort as a Concept in the Study of Social Change", *American Sociological Review*, vol. 30, no. 6, pp. 843-861.

Saunders, P. 1990a, *Social Class and Stratification* Routledge, London.

Saunders, P. 1990b, "Social Mobility," in *Social Class and Stratification*, Routledge, London, pp. 68-84.

Saunders, P. 1995, "Might Britain be a meritocracy?", *Sociology*, vol. 29, no. 1, pp. 23-41.

Saunders, P. 2010, *Social Mobility Myths* CIVITAS: Institute for the Study of Civil Society, London.

Scherer, S. 2001, "Early Career Patterns: A Comparison of Great Britain and West Germany", *European Sociological Review*, vol. 17, no. 2, pp. 119-144.

Schneider, B. & Stevenson, D. 1999, *The Ambitious Generation: America's Teenagers, Motivated but Directionless* Yale University Press, New Haven.

Scott, J. 2002, *Teenagers at Risk: A Prospective Study of How Some Youth Beat the Odds to Overcome Family Disadvantage*, ESRC End of Award Report L134251027.

Sharpe, S. 1976, *Just Like a Girl: How girls learn to be women* Penguin, Harmondsworth.

Shavit, Y., Arum, R., & Gamoran, A. 2007, *Stratification in Higher Education* Stanford University Press, Stanford.

Shu, X. & Marini, M. M. 2008, "Coming of age in changing times: Occupational aspirations of American youth, 1966- 1980", *Research in Social Stratification and Mobility*, vol. 26, pp. 29-55.

Skrondal, A. & Rabe-Hesketh, S. 2004, *Generalized Latent Variable Modeling: Multilevel, Longitudinal and Structural Equation Models* Chapman & Hall/CRC, Boca Raton,FL.

Smyth, E. 2005, *Gender, education and labour market outcomes*, Economic and Social Research Institute, 5.

Sorensen, A. 1994, "Women, Family and Class", *Annual Review of Sociology*, vol. 20, pp. 27-47.

Sorensen, A. 2005, "Family Structure, Gender Roles, and Social Inequality," in *Analyzing Inequality*, S. Svallfors, ed., Stanford University Press, Stanford, pp. 108-128.

Sorokin, P. A. 1927, *Social and Cultural Mobility* Harper and Brothers, New York.

Spencer, L. & Pahl, R. E. 2006, *Rethinking friendship: hidden solidarities today* Princeton University Press, New Jersey.

Staff, J. & Mortimer, J. T. 2007, "Educational and Work Strategies from Adolescence to Early Adulthood: Consequences for Educational Attainment", *Social Forces*, vol. 85, no. 3, pp. 1169-1194.

Stewart, A., Prandy, K., & Blackburn, R. M. 1980, *Social Stratification and Occupations* MacMillan, London.

Stokes, H. & Wyn, J. 2007, "Constructing identities and making careers: young people's perspectives on work and learning", *International Journal of Lifelong Education*, vol. 26, no. 5, pp. 495-511.

Stolzenberg, R. M. & Relles, D. A. 1997, "Tools for intuition about sample selection bias and its correction", *American Sociological Review*, vol. 62, no. 3, pp. 494-507.

Taris, T. W. 2000, *A Primer in Longitudinal Data Analysis* Sage, London.

Taylor, M. 2000, "Work, non-work, jobs and job mobility," in *Seven Years in the Lives of British Families*, R. a. G. J. e. Berthoud, ed., Policy Press, Bristol, pp. 73-106.

Taylor, M., Brice, J., Buck, J., & Prentice-Lane, E. 2009, *British Household Panel Survey User Manual Volume A: Introduction, Technical Report aand Appendices*, University of Essex, Colchester.

Thomson, E., McLanahan, S. S., & Braun Curtin, R. 1992, "Family Structure, Gender, and Parental Socialization", *Journal of Marriage and the Family*, vol. 54, pp. 368-378.

Treiman, D. J. & Ganzeboom, H. B. G. 2000, "The Fourth Generation of Comparative Stratification Research," in *The International Handbook of Sociology*, S. R. Quah & A. Sales, eds., Sage, London, pp. 123-141.

Uhlenberg, P. & Mueller, M. 2003, "Family Context and Individual Well-Being," in *Handbook of the Life Course*, J. T. Mortimer & M. J. Shanahan, eds., Kluwer Academic/Plenum Publishers, London, pp. 123-148.

Ward, L. 'When I grow up...the dreams of primary pupils that came true'. The Guardian . 29-9-2007.
Ref Type: Newspaper

Warrington, M. & Younger, M. 2000, "The Other Side of the Gender Gap", *Gender and Education*, vol. 12, no. 4, pp. 493-508.

White, P. 2007, *Education and Career Choice: A New Model of Decision Making* Palgrave Macmillan, Basingstoke.

Wilkinson, D. 2003, *New Deal for Young People: Evaluation of Unemployment Flows* 15.

Wright, E. O. 1997, *Class Counts: Comparative Studies in Class Analysis* Cambridge University Press, Cambridge.

Younger, M. & Warrington, M. 2005, *Rising Boys Achievement*, Department for Education and Skills, London, 636.

Appendices

Appendix 1: Youth Cohort Study of England & Wales. Cohorts and Sweeps of Data Collection

	Year of Survey										
	85	86	87	88	89	90	91	92	93	94	95
COHORT											
1	1	2	3								
2		1	2	3							
3			1	2	3					4	
4					1	2	3				
5							1	2	3		
6								1	2	3/4(A)	

	94	95	96	97	98	99	00	01	02	03	04
COHORT											
7	1		2								
8			1		2		3(A)				
9					1	2	3/4(A)				
10							1/2(A)		3		
11									1	2	3

	04	05	06	07	08	09	10	11	12	13	14
COHORT											
12	1	2	3								
13				1	2	3	4				
14						1	2	3	4		
LSYPE	1	2	3	4	5	6	7	8	9	10	11

(A) Autumn sweeps; Black = Harmonised Cohort; Pink = Not Harmonised (i.e. YCS Cohort not included in the dataset SN5765)
Blue = Recent Cohorts

Appendix 2:Descriptive Characteristics:

BHPS Rising 16's Essex Sample, England and Wales, 1991-1999 (n=1083);
YCS Cohorts 1990-1999 (n=76791)

X variable	BHPS (n)	YCS (n)	BHPS (%)	YCS (%)
Gender				
Boys	555	37771	51.25	49.00
Girls	528	39019	48.75	51.00
Ethnicity				
White	1010	68127	93.26	90.36
Black	10	1368	0.92	1.81
Indian	18	1964	1.66	2.60
Pakistani	11	1643	1.02	2.18
Bangladeshi	6	666	0.55	0.88
Other Asian	1	845	0.09	1.12
Other ethnicity	16	784	1.48	1.04
Tenure				
Rented	257	58807	23.73	78.15
Owned	819	15112	75.62	20.08
School year				
1991	97	-	8.96	-
1992	119	-	10.99	-
1993	135	-	12.47	-
1994	121	-	11.17	-
1995	119	-	10.99	-
1996	146	-	13.48	-
1997	120	-	11.08	-
1998	109	-	10.06	-
1999	117	-	10.80	-
Household type				
Mum and Dad	872	62017	80.52	80.76
Mum only	159	10394	14.68	13.74
Dad only	39	2229	3.60	2.95
Other household	13	2060	1.20	2.72
Parental education				
Non graduates	952	62192	87.90	80.09
Graduate parents	131	14599	12.10	19.01

Descriptive Characteristics - *Continued*

X variable	BHPS (n)	YCS (n)	BHPS (%)	YCS (%)
Family Camsis				
Score				
Mean	-	-	47.91	56.94
School type				
Comprehensive	536	65536	49.49	85.62
Grammar	77	2435	7.11	3.18
Secondary modern	158	2798	14.59	3.66
Independent	46	5772	4.25	7.54
BHPS cohorts				
92-93	254	-	23.45	-
94-95	240	-	22.16	-
96-97	266	-	24.56	-
98-99	226	-	20.87	-
YCS cohorts				
1990	-	14511	-	18.90
1993	-	18021	-	23.47
1995	-	15899	-	20.70
1997	-	14662	-	19.09
1999	-	13698	-	17.84

Appendix 3: Educational Measures

wQFACHI:

1. Higher Degree;

2. 1st Degree;

3. Higher National Certificate/Diploma or teaching qualifications;

4. A-Levels, Scottish Higher Grades, Scottish School Leaving Certificate Higher Grade, Scottish Certificate of Sixth Year Studies, Higher School Certificate, Ordinary National Certificate/Diploma, BEC/TEC/BTEC National/General Certificate or Diploma or City & Guilds Certificate (Advanced/Final/Part II);

5. O-Levels (pre 1975), O-Level grades A-C (1975 or later), GCSE grades A-C, CSE grade 1, Scottish O Grades (pass or bands A-C or 1-3), Scottish School Leaving Certificate Lower Grade, School Certificate or Matric, Scottish Standard Grade Level 1-3 or City & Guilds Certificate (Craft/Intermediate/Ordinary/Part I);

6. CSE Grades 2-5, O Level grades D-E, GCSE grades D-G, Scottish SCE Ordinary Grade bands D-E or 4-5 or Scottish Standard Grade levels 4-7.

wQFEDHI:

1. University or CNAA Higher Degree;

2. University or CNAA First Degree;

3. Teaching Qualifications;

4. City & Guilds Certificate (Full Technological/Part III), HNC, HND,

BEC/TEC/BTEC Higher Certificate/Diploma, University Diploma, Any

other technical, professional or higher qualifications;

5. Nursing Qualifications;

6. A Levels, Scottish Higher Grades, Scottish School Leaving Certificate

Higher Grade, Scottish Certificate of Sixth Year Studies, Higher School

Certificate, Ordinary National Certificate/Diploma, BEC/TEC/BTEC

National/General Certificate or Diploma

or City & Guilds Certificate (Advanced/Final/Part II);

7. O Levels (pre 1975), O-Level grades A-C (1975 or later), GCSE

grades A-C, CSE grade 1, Scottish O Grades (pass or bands A-C or 1-3),

Scottish School Leaving Certificate Lower Grade, School Certificate or

Matric, Scottish Standard Grade Level 1-3 or City & Guilds Certificate

(Craft/Intermediate/Ordinary/Part I);

8. Clerical or Commercial Qualifications;

9. CSE Grades 2-5, O Level grades D-E, GCSE grades D-G, Scottish SCE

Ordinary Grade bands D-E or 4-5 or Scottish Standard Grade levels 4-

7;

10. Recognised trade apprenticeship;

11. Youth Training Certificate, Any other qualifications;

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University of Essex. Institute for Social and Economic Research, *British
Household Panel Survey: Waves 1-17, 1991-2008* [computer file]. *6th Edition.*
Colchester, Essex: UK Data Archive [distributor], May 2009. SN: 5151.