Family, School and Job – The Impact of Socio-economic Background and School Segregation on Labour Market Outcomes: Evidence from the Longitudinal Study *Next Steps* in England

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Early access to the labour market in the UK and other developed countries for young people is still clearly stratified according to socio-economic origins and prior educational attainment. However, these factors are difficult to change, are not the only factors creating stratified outcomes, and may in any case be mediated by other factors such as school segregation and peer influence. In recent years, there have been increasing policy concerns about social mobility in the UK. This study uses the longitudinal study *Next Steps* to analyse the trajectories of a generation currently in their late 20s. It focuses on how two different factors – socio-economic background and school segregation – are related to occupational status in early adulthood from the perspective of social justice and the equity and equality of education. The paper provides a review of the literature on the topic and describes the methods used in this study.

Keywords: social mobility, socio-economic background, school segregation, labour market outcomes

Introduction

Occupational gaps – differences in labour market outcomes between socio-economic groups – remain one of the most important issues in the area of social mobility. There has been increasing concern about social justice in recent years, especially in political debates on the roles of social origins and education in social mobility. Social scientists have long been and are still conducting analyses of the potential elements influencing life chances. It has often been argued that an advantageous family background and education have the potential to lead to upward social mobility. However, there is still no clear picture about the relation between the family, educational factors and occupational mobility. In addition, there is a lack of research on the impact of secondary education, especially in terms of school segregation characteristics, on labour market outcomes. This study probes into how socio-economic background and school segregation are related to young people's labour market outcomes in early adulthood. It aims to provide policy-makers with suggestions to increase social mobility and improve fair access to the labour market.

Social mobility: definition

Social mobility is a concept based on the idea that society can be considered an open system of social stratification which is typically determined by social class (Glass, 1967; Sorokin, 1927). The theory is that people can be 'stratified' into different socio-economic levels on the basis of their incomes, occupations, education or derived social and political power. A variety of stratification schemata, including Erik Olin Wright's Class Structure, the Cambridge Social Interaction and Stratification Scale, the Swiss Socio-Professional Categories, John H. Goldthrope's Class Schema and Donald J. Treiman's Prestige Scale, have been developed and are widely used in the social and political sciences.

The dataset *Next Steps* used in this study adopts the *National Statistics Socio-economic Classification* (NS-SEC) of employment relations and occupational status developed from the Goldthrope schema (Goldthorpe, 1980/1987, 1997). This schema is influenced by the ideas of Max Weber (see Marshall et al., 1988 for further explanation) and centres on employment relations. The basic idea is that an industrial society produces "a diversification of occupations, which can be classified according to the relations they form with each other" (Bergman and Joye, 2005, p. 9). The notion of social mobility accepts the idea of social stratification and refers to "the movement or opportunities for movement between different social classes or occupational groups" (Aldridge, 2003, p. 189).

Mobility is generally measured in terms of economic changes, such as in levels of income or earnings, social class, socio-economic status (SES) or occupational status (Goldthorpe and Mills, 2008). One popular measure of social mobility in mainstream studies considers changes of occupation – either upwards or downwards – in the labour market, either in individuals' lifetimes (intra-generational) or within families over generations (inter-generational).

What matters? Factors influencing social mobility

In recent years there has been increasing concern about inequality of opportunities in the labour market in the UK (Keep & Mayhew, 2014). In order to narrow the occupational gaps between students from lower socio-economic backgrounds and those with privileged family origins, and to improve the equality of occupational opportunities, it is important to probe into the potential factors which may either be barriers preventing disadvantaged children from accessing high-value jobs or play positive roles in improving individuals' occupational status compared to their parents'

occupations. Suggesting policy solutions to overcome disadvantages in social mobility necessitates an understanding of the related casual influences. Research evidence shows that labour market outcomes and opportunities are, to different extents, influenced by social origins, early education, educational attainment and higher educational status.

School segregation

Schooling is widely considered to facilitate individuals' achievement of economic and social objectives, especially "occupational attainment and earnings" (Hinchliffe, 1987, p. 141). Among the wide range of studies focusing on the role of education as an engine of social mobility, some examine this broad issue with a specific focus on the relation between school types and occupational status (Boliver & Swift, 2011; Clark & Del Bono, 2014; Clifford & Heath, 1984; Dearden, Ferri, & Meghir, 2002; Green, Machin, Murphy, & Zhu, 2011). In the UK context, a recent study shows that a selective education system leads to greater inequality in adult earnings (Burgess, Dickson, & Macmillan, 2014). This is in line with the finding of Green, Machin, Murphy and Zhu (2011) that private schooling in Britain leads to higher wages in the labour market.

Regarding schooling, school segregation proves to be an important concept. School segregation, "a measure of the unevenness in the distribution of individual characteristics" between schools, can increase the "inequality (unevenness of distribution) between schools in terms of disadvantaged students" (Gorard, Taylor & Fitz, 2003, p. 34). Gorard, in his paper *The complex determinants of school intake characteristics and segregation, England 1989 to 2014* (2015), provides a detailed analysis of the possible determinants of school segregation, such as geographical factors, ethnic origin and social class. School segregation is widely studied in terms of disadvantages in educational attainment (Gorard, 2000, 2014; Gorard & See, 2013).

One piece of research involving the issue of school segregation and educational equity is by Gorard, Taylor, and Fitz (2003), who, in the book *Schools, Markets and Choice Policies*, give a detailed analysis of school segregation in England and Wales and investigate the relation between education markets and equity.

Research questions

This study examines occupational chances in the UK labour market by the age of 25 using the nationally representative longitudinal dataset *Next Steps*. The following three main research questions are addressed:

(1) To what extent and in what ways do family characteristics, including economic status and educational and cultural resources, influence young people's occupational status in the labour market in early adulthood (i.e. by the age of 25)?

(2) In terms of school segregation, to what extent is secondary schooling, including the type of secondary school attended, school characteristics and peer effects, linked to students' occupational attainment by the age of 25?

(3) To what extent is the effect of advantage in access to the labour market, especially to an elite occupation, mediated by differences in school characteristics?

Data

At the core of this study is a combination of large-scale survey data from *Next Steps* on an initial sample of 15,770 young people in England and the National Pupil Database (NPD) from the robust nationwide administrative school level dataset *School Level Annual Schools Census* (SLASC).

Next Steps

Next Steps is a large-scale nationally-representative survey following the lives of 15,770 students selected to be representative of young people in England. The survey followed a cohort of young people born between September 1989 and August 1990 from the age of 13/14 in Year 9 attending maintained schools, independent schools and pupil referral units (PRUs) in England in 2004 until they reached the age of 25/26 in 2016. The respondents were initially interviewed in spring 2004. This was followed by subsequent annual household interviews until 2010, and a further survey in 2015 when the cohort reached 25 resulting in a total of eight waves. The survey collected rich information on its subjects' family backgrounds, incomes and environments, their parents' socio-economic status, employment, aspirations and attitudes, and local levels of deprivation, together with specific information on the young people's secondary education and training, including the type of secondary school attended, the academic or vocational qualifications that they obtained, their higher education, their attitudes to higher education and jobs, and their economic activities at each stage, including occupational status, sources of income and state benefits or tax credits claimed (Department for Education, 2011). An understanding of the family and educational characteristics of this cohort is vital to understanding their later occupational trajectories.

School Level Annual Schools Census (SLASC)

In order to examine whether and how different levels of school segregation are related to young people's later occupational status, the study links *Next Steps* data with *SLASC*. *SLASC* is a national administrative dataset officially collected by the Department for Education (DfE) and has long served as one of the nation's richest sources of administrative data from all state-maintained schools in England. It provides rich school-level data including the specific schools that pupils attend, their educational

attainment and "a range of possible indicators of pupil disadvantage such as eligibility for free school meals and special educational needs" (Gorard, 2013, p. 113), which facilitate an analysis of the main characteristics of school segregation. All school-age educational establishments participate in the *SLASC* to some extent and all state-funded schools participate completely (Gorard, 2013, p. 113).

Sampling achievement and data attrition

Next Steps attempted to follow all of the 15,770 households who initially took part in wave one. However, as with almost all other longitudinal surveys, it suffers from data attrition across the waves. Wave two had a sample of 13,539 households, and there was a reduction of 36% in wave three, with 12,439 cases. In wave four 11,801 young people were interviewed, with the sample containing an additional "ethnic minority boost of 600 Black African and Black Caribbean young people" (Department for Education, 2011, p. 11). The aim of this sample boost was to ensure "an adequate representation of the relevant sub-population in England" (Department for Education, 2011, p. 9). In wave five, 10,430 households were interviewed, and 9,799 took part in wave six and 8,682 in wave seven. The final wave (Wave Eight) covered a sample of 7,481 cases. Of the total of 16122 respondents (including the boost sample), the number of valid cases taking part in all the waves with relatively full information on family origins, school segregation and labour market outcomes is n=5426. These form the analytical sample used in the present study.

Overview of research methods

The study exploits the longitudinal nature of the data by building models of the relation between the indicators of socio-economic background and school segregation among the secondary schools concerned and those of labour market outcomes in early adulthood for the cohort studied. Specifically, it explores the impact of socio-economic background and school segregation on young people's occupational status by the age of 25, as indicated by their NS-SEC class category. It uses multinomial logistic regression to evaluate the relationship between the factors used as predictors of employment status.

The modelling strategy unfolds across five models (see Table 1) which capture the key stages in individuals' early life courses.

Table 1 Models

Model 1	Socio-economic background and characteristics: • Family background information • Economic resources • Cultural and educational resources
Model 2	Model 1 + Age 13/14 secondary school
Model 3	Model 2 + Apprenticeship and/or training at age 15/16
Model 4	Model 3 + Higher education status and economic activity by age 18/19
Model 5	Model 4 + Occupational statuses at 25

The five models capture the important life stages cumulatively. Model 1 begins with an account of the basic characteristics of the cohort members at birth and the indicators of their economic and cultural backgrounds. Model 2 adds the secondary school type at age 13/14 and model 3 also includes apprenticeships and training at age 15/16. Model 4 includes higher education status and economic activity, as indicated by being employed, having an apprenticeship or training, conducting unpaid or voluntary work or being not in education, employment or training (NEET) by age 18/19. This model captures the important educational transition stage for the cohort. Amongst other things, the last model, Model 5, adds the occupational status at age 25 as indicated by the NS-SEC class.

Next stage

This paper has mainly focused on an overview of the research literature, a description of the datasets used and a justification of the methods employed. Analysis of the models is being conducted at the moment and the findings will be reported at a later date.

References

Aldridge, S. (2003). The facts about social mobility: a survey of recent evidence on social mobility and its causes. New Economy, 10: 4, 189-193.

Bergman, M.M. and Joye, D (2005). Comparingson social stratification schemataschemas: CAMSIS, CSP-CH, Goldthorpe, ISCO-88, Treiman, and Wright. University of Cambridge, Cambridge Studies in Social Research, no 10. Available at: http://www.sociology. cam.ac.uk/research/srg/cs10.

Boliver, V. & Swift, A. (2011). Do comprehensive schools reduce social mobility? British Journal of Sociology, 62, 89-110.

Burgess, S., Dickson, M., & Macmillan, L. (2014). Selective schooling systems increase inequality. (Working paper no. 14-19). Department of Quantitative Social Science.

Clark, D. & Del Bono, E. (2014). The long-run effects of attending an elite school: Evidence from the UK. Essex: ISER Working Paper Series.

Clifford, P. & Heath, A. (1984). Selection does make a difference. Oxford Review of Education, 10, 85-97.

Dearden, L., Ferri, J., & Meghir, C. (2002). The effect of school quality on educational attainment and wages. Review of Economics and Statistics, 84, 1-20.

Department for Education (2011). LSYPE User Guide to the Datasets: Wave 1 to Wave 7. User guide, Department for Education, London.

Glass, D.V. (Ed.) (1967). Social Mobility in Britain. London.

Goldthorpe, J. H., & Mills, C. (2008). Trends in Intergenerational Class Mobility in Modern Britain: Evidence fFrom National Surveys, 1972—2005. National Institute Economic Review, 205(1), 83-100.

Goldthorpe, J.H. (1997). 'The 'Goldthorpe' class schema: some observations on conceptual and operational issues in relation to the ESRC review of government

social classifi cations' in D. Rose and K. O'Reilly (eds.) Constructing Classes: Towards a New Social Classifi cation for the UK. Swindon: ESRC/ONS.

Goldthorpe, J.H. (with C. Llewellyn) (1980/1987). Social Mobility and Class Structure in Modern Britain. Oxford: Clarendon.

Gorard, S., & See, B. H. (2013). Overcoming disadvantages in Education. London, UK: Routledge.

Gorard, S. (2000). Education and social justice: The changing composition of schools and its implications. Cardiff: University of Wales Press.

Gorard, S. (2014). The link between Academies in England, pupil outcomes and local patterns of socio-economic segregation between schools. Research Papers in Education 29(3): 268-284.

Gorard, S. (2015) The complex determinants of school intake characteristics and segregation, England 1989 to 2014, Cambridge journal of education.

Gorard, S., Taylor, C. and Fitz, J. (2003). Schools, Markets and Choice Policies, London: RoutledgeFalmer.

Green, F., Machin, S., Murphy, R. & Zhu, Y. (2011). The changing economic advantage from private schools. Economica, 20, 1-22.

Hinchliffe, K. (1987). Education and the labour market. In Psacharopoulos, G. (1987). Economics of education: research and studies. (pp. 141-146). Oxford: Pergamon.

Keep, E., & Mayhew, K. (2014). Inequality – 'wicked problems,', labour market outcomes and the search for silver bullets. Oxford Review of Education, 40(6), 764-781.

Marshall, GordonG., Howard Newby, H., David Rose, D. and Carolyn Vogler, C. (1988). Social Class in Modern Britain. London: Hutchinson.

Sorokin, P.A. (1927). Social and Cultural Mobility. New York.