SOCIAL MOBILITY SUMMIT 2017

Delegate pack for Sutton Trust summit
#socialmobility2017

- July 12th 2017

THE SUTTON TRUST
Improving social mobility for 20 years

FOREWORD BY SIR PETER LAMPL

Welcome to the Sutton Trust Social Mobility Summit 2017. Twenty years ago, I founded the Sutton Trust because I was alarmed at the poor prospects faced by too many able young people from poor and moderate income backgrounds. Since then, our programmes, research and impact on government policy have transformed thousands of young people's lives. We have put social mobility at the top of the political agenda.

So now is a good time to take stock. Today's summit brings together some of the leading academics and policymakers on social mobility in Britain today. We are also publishing important new research on where we are today and some of the challenges we face tomorrow.

Our exclusive new polling from Ipsos MORI sets a worrying backdrop for our discussions. There has been a significant fall over the last decade in the numbers of people who believe that everyone has equal opportunities to get ahead. There is a substantial increase in the numbers who say that 'who you know' is essential to getting ahead in life, compared to personal characteristics. Pessimism about social mobility is clearly on the rise at a time when young people – even good graduates – find it harder to get a decent job and find a place on the property ladder.

Yet improving social mobility would bring with it real benefits, not just for individuals and society, but for our economy too at a time when Brexit is being implemented. Oxera's analysis shows that we could increase GDP by up to £39bn, or £590 for every adult, if we brought mobility just to the average in Western Europe. There will be plenty of discussion at today's summit about where exactly social mobility is today - our 2005 study with the LSE showed that those born in 1970 had poorer prospects than those born in 1958 – but what is more important is what happens tomorrow. That's where BCG's analysis is so important. Automation threatens so many jobs, in the past often a stepping stone to getting on, but does it also offer new opportunities to mitigate those adverse effects?

I know these papers will provoke fascinating discussions at today's summit. But I also hope they help us to shape the policy debate too. We published our Mobility Manifesto outlining our agenda for improving social mobility before the recent general election.

We suggest some recommendations ahead of today's debates. Understanding where social mobility is today and where it is going are essential to addressing these issues.

I am very grateful to all those presenting at today's summit. In particular to BCG, Oxera and Ipsos MORI.

Sir Peter Lampl

Founder and Chairman of the Sutton Trust and Chairman of the Education Endowment Foundation

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WHAT THE POLLING SAYS

Sutton Trust
Polling by Ipsos MORI
– July 2017

1. EQUALITY OF OPPORTUNITY

In June this year, Ipsos MORI conducted a poll of 2001 adults, aged-16-64 in Great Britain for the Sutton Trust, seeking their perceptions of the state of social mobility. This follows a similar exercise conducted by the Trust almost ten years ago in 2008 which, along with other surveys conducted by Ipsos, allows us to examine how public perceptions of mobility, opportunity and fairness have changed over time.

Research has indicated that social mobility has been largely stagnant in the UK for decades and, as the issue has grown in the public consciousness, there appears to be a growing pessimism. In 2008, over half of respondents (53%) agreed that 'people have equal opportunities to get ahead', 18% more than disagreed. In 2017 however, the consensus has switched, with people more likely to disagree with the statement (42%, compared to 40% who agree). While this is concerning, it is nonetheless also indicative of increased awareness of the barriers to equal opportunities and the necessity for change.

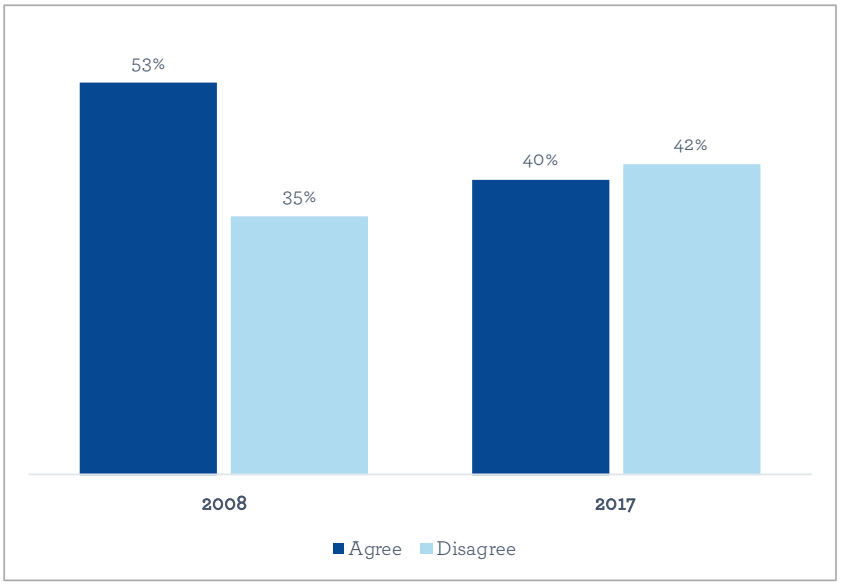

Figure 1. % agreeing that "people have equal opportunities to get ahead"

Those in the middle/lower of the income and social grade spectrum were most likely to disagree, with 25-34 year olds the most pessimistic age group. Those with the highest incomes were most likely to agree, along with those with lower levels of education.

In order to understand the drivers of this perception of the lack of a level playing field, respondents were also asked about what factors help people get ahead in life. The British Social Attitudes survey has been tracking this question for 30 years now, covering the entire lifespan of the Sutton Trust, and while our survey is not directly comparable due to methodological differences, it does suggest potential trends.[1] Personal attributes such as having ambition (76% said it was essential or very important), and a good education (72%) are regarded as by far the most important factors for getting ahead. These numbers have been relatively stable over the past thirty years. However, while the value of coming from a wealthy family

1. British Social Attitudes, conducted by NatCen Social Research, is an annual face-to-face random probability sample of the population in Great Britain over 18. See notes at the end of this report for full details of the methodology for the 2017 survey, which was conducted online using quota sampling and uses a slightly different age profile.

declined from 21% in 1987 to 14% in 2009, it has shot up to 26% in our results. 'Knowing the right people' similarly fell in importance to 33% in in 2009, but in 2017 is perceived as very important or essential by over half of respondents (54%). With the expansion of higher education in the UK since the 90s, we haven't seen substantial jumps in social mobility. One of the reasons commonly offered for this is the ability for advantaged groups to find other ways of protecting their position. The perceived increased importance of 'who you know' is indicative of one of the ways privileged groups hold on to their advantage in the labour market.

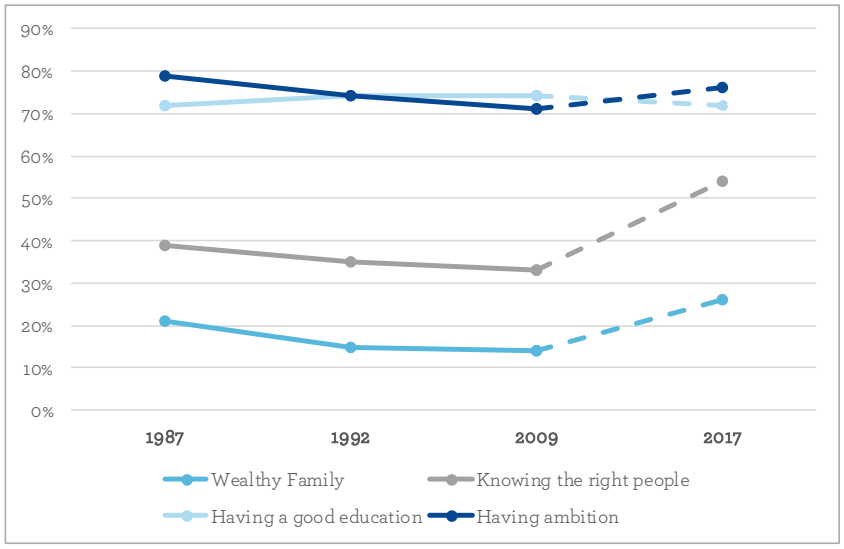

Figure 2. % saying that a factor is essential or very important for getting ahead in life

This is supported by the age breakdown, which shows that those aged under 34 were more likely to emphasise the importance of connections than older age groups.

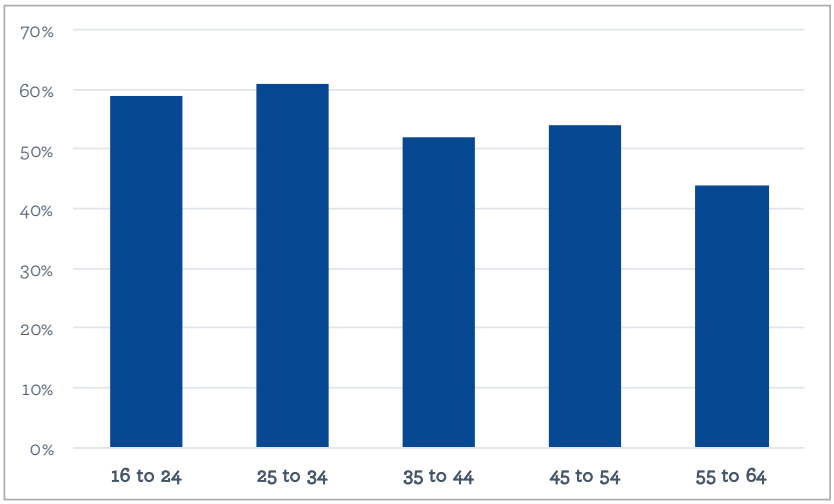

Figure 3. % saying that 'knowing the right people' is essential or very important for getting ahead in life, by age

2. INTERGENERATIONAL TRENDS

While these two issues capture a 'relative' conception of social mobility, where people have equal chances to move around the social hierarchy, also important is 'absolute' social mobility, which occurs when the life chances of the population as a whole increase together. However, as has been well documented in recent times, progress between generations has also stalled, with young people today facing greater economic challenges and barriers than their parents. This is reflected in public perceptions. In 2003, just after the Sutton Trust celebrated its fifth birthday, 43% of the public believed 'today's youth' would have a better quality of life than their parents' generation. However, by 2011, in the aftermath of the financial crisis, this figure had plummeted to 23%, with 35% believing the new generation would have a lower quality of life. In line with the increased polarisation of British politics, 2017 has seen a diverging trend. While optimism among a certain proportion of the population has rebounded slightly to 29%, pessimism has also substantially increased, with almost half of people now agreeing that today's youth will have a worse life than their parents.

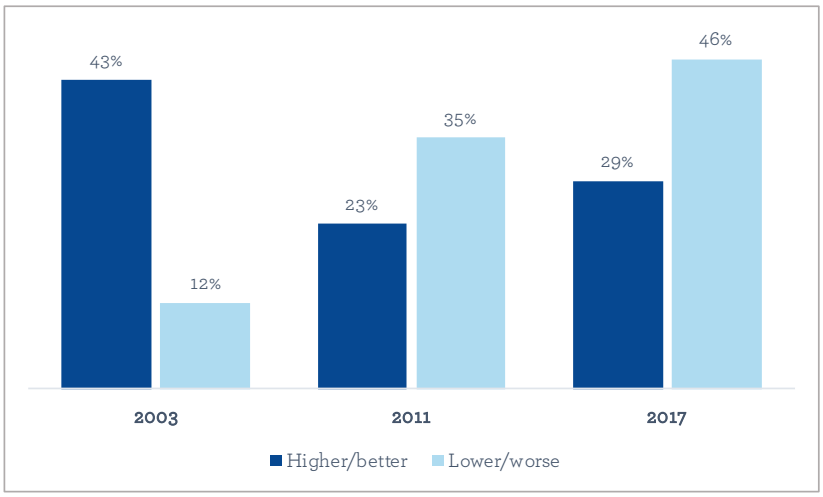

Figure 4. % agreeing that "today's youth will have had a better or worse life than their parents' generation"

Despite talk of pessimism among young people in the UK, it was actually the youngest age groups that were most likely to feel they had better prospects. In fact, 39% of school-age young people from 11-16, asked separately as part of Ipsos MORI's Young People Omnibus, felt they had better prospects than their parents. The most pessimistic groups were in the 25 to 44 age range.

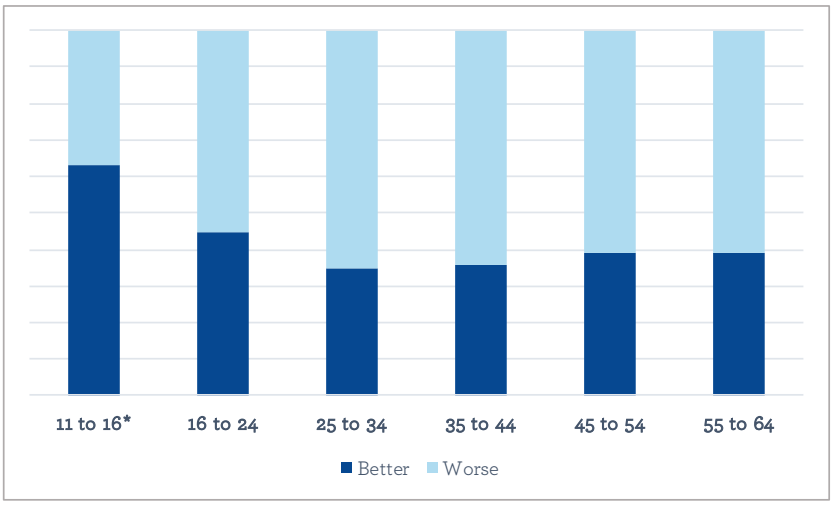

Figure 5. % agreeing that "today's youth will have had a better or worse life than their parents' generation" by age (*separate sample of young people in schools, asked about 'your generation' [2])

As is pointed out in the other research we publish today, due to a gap in longitudinal birth cohort studies between the 1970 British Cohort Study and the Millennium Cohort in 2000, there is a dearth of recent robust data on the life chances of people compared to their family background. However, British Social Attitudes has also been collecting data on self-perceived mobility in comparison to parents since 1987. When asked to compare their job with that of their father when the respondent was 16, a total of 40% said their job was of higher or much higher status, 22% about equal, and 26% lower or much lower. The trend over time is largely one of stagnation. As shown in figure 6, the sharp drop in self-perceived upward mobility in the nineties coincides with when those born in 1958 and the 1970 cohort turned about 30, previously identified in Sutton Trust research as a point where mobility in the UK fell. The pattern since 1999 has been one of stability, with upward mobility not improving in the past 18 years, while downward mobility has begun to creep up, perhaps as a result of the financial crash, along with the general trend towards casual, insecure and low paid work in the economy. Those who had reported downward mobility were particularly pessimistic across the range of other survey questions.

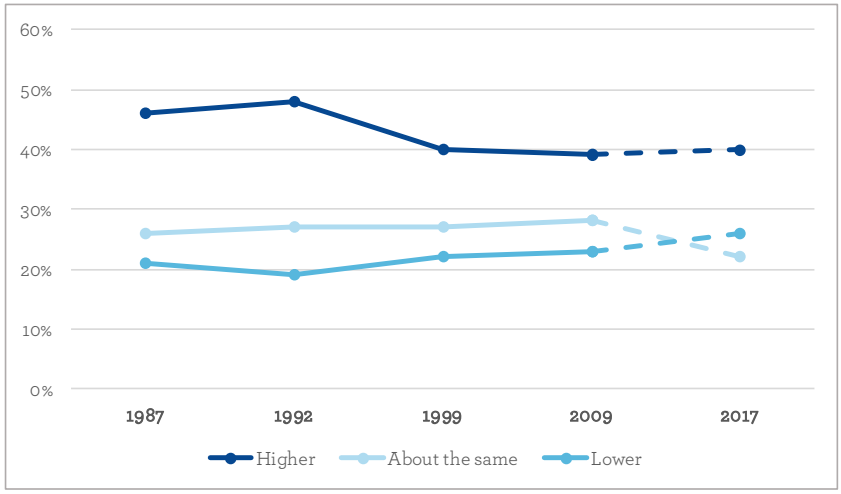

Figure 6. % comparing the level/status of their current job to their father's when they were 16

2. The Ipsos MORI Young People Omnibus conducted 2,881 interviews with children aged 11-16 in schools in England, Scotland and Wales between February and May 2017.

3. POLICY SOLUTIONS

What do people think should be done to tackle these issues? When given a range of policies commonly put forward as potential solutions to the social mobility problem, almost half (47%) chose 'high quality teaching in comprehensives' as the measure that would most help those from disadvantaged backgrounds get ahead in life. This was more than double the next closest option, lower university tuition fees (23%). It is also notable that improving the quality of teaching in comprehensives was almost six times higher than those who thought increasing access to grammar schools was a priority for helping those from poor backgrounds (just 8%), despite the high profile nature of the grammars debate in the past 12 months. While good teaching has regularly been shown to have the greatest impact on the attainment of disadvantaged pupils, also notable was the very low percentage (4%) for high quality early years provision, suggesting that the professional consensus on the importance of early years for life chances has not necessarily translated to the public at large.

Interestingly, prioritising comprehensive teaching tended to be favoured by those of higher education, social grade and income, as shown in figure 7. Young people aged 16-24 were most likely to say lowering tuition fees would most help those from less advantaged backgrounds get ahead in life, compared to adults overall (28% vs 23%, respectively).

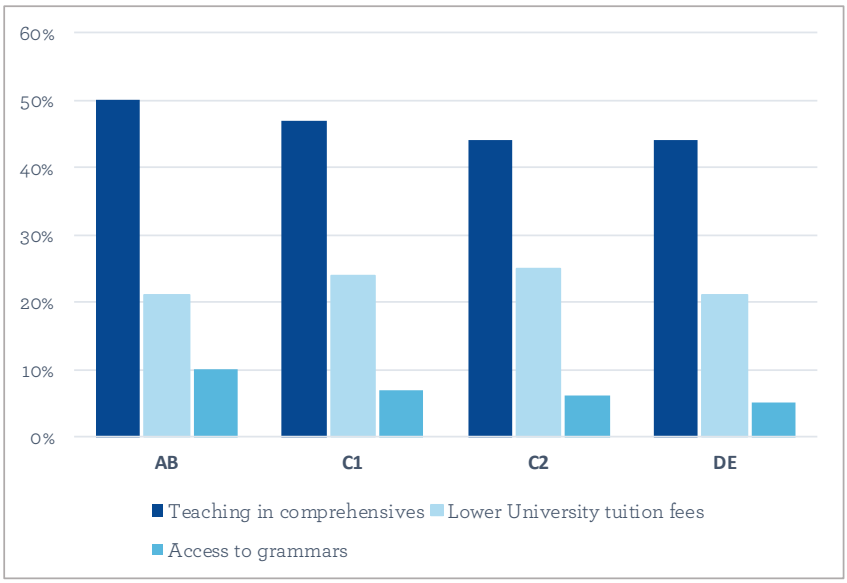

Figure 7. % saying proposal would most help those from less advantaged backgrounds, by social grade (AB highest, DE lowest)

Survey details

- 2,001 adults, aged 16-64 in Great Britain were interviewed by Ipsos MORI for this survey.
- The survey was conducted online by Ipsos Interactive Services between 6th-8th June 2017.
- Quotas were set for age, sex, and region (source: 2015 Mid-Year Population Estimates for Great Britain).
- Data are weighted to the known population profile for the population of Great Britain aged 16-64 (source: 2015 Mid-Year Population Estimates for Great Britain).

To download the full tables, please visit our new website on SuttonTrust.com

THE STATE OF SOCIAL MOBILITY IN THE UK

Boston Consulting Group
Sutton Trust
– July 2017

BCG

THE SUTTON TRUST
Improving social mobility for 20 years

EXECUTIVE SUMMARY

1. Social mobility in the UK increased from a low base from the 1940s through to the 1970s.[1] In this period both absolute social class and income mobility increased. Since the 1980s, social mobility appears to have stalled or deteriorated in terms of social class and income measures respectively.[2] The UK (along with the US) is one of the lowest performing countries for income mobility across the OECD. The UK ranks better in educational mobility, but this does not appear to translate into earnings. [3,4]

2. We see three key drivers of social mobility: economic opportunities, capability development, and fair access to opportunities (both job and education opportunities). There has been some progress on these drivers in recent years, particularly in education, where educational gaps by socioeconomic background have narrowed since the 1980s.

3. However, significant obstacles to social mobility remain:

- Real wage growth has stagnated and income inequality has grown. Millennials are likely to be the first generation in modern times to earn less than their parents.[5]
- Large educational gaps remain and entrenched privilege continues in higher education. Students from lower socioeconomic backgrounds are still far less likely to attend university[6] and students from the poorest households are 55 times less likely than independent school students to attend Oxford or Cambridge.[7]
- Access to education and job opportunities is an ongoing issue with continued evidence of opportunity 'hoarding' through networks, information asymmetries, and social bias. Even when less well-off students attend the same university and study the same subject as their wealthier peers they earn over 10% less per year.[8]

4. Without concerted effort, social mobility could deteriorate further due to trends shaping the future of work

- These trends include the rise of disruptive technologies, new ways of working, demographic changes and globalisation.
- The future of work is likely to involve large structural changes to the labour market and potentially a net loss of jobs, mostly in routine occupations. An estimated 15 million UK jobs could be at risk of automation, with 63% of all jobs impacted to a medium or large extent.[9]
- Additionally, we may see less stable full-time employment, greater demand for technical skills, and an increased value of "soft" or "essential life" skills (such as confidence, motivation and communication). This will advantage those from higher socioeconomic backgrounds, who typically have greater opportunities to develop these skills.[10]

5. These changes will likely have significant impacts on social mobility- both positive and negative:

- *Challenges:* Job losses from technology development are likely to disproportionately impact routine jobs, with most of the impact falling on those from low and medium socioeconomic backgrounds. The increased value placed on essential life skills and 'soft' skills as a differentiator in securing employment could put those from lower socioeconomic backgrounds at a disadvantage.

Further, the need to continuously re-skill and up-skill oneself will raise the cost and time required for education and individual development.

• *Opportunities:* There has been a large increase in demand for STEM jobs. Studies show that there is a greater proportion of students from lower socioeconomic backgrounds in STEM subjects than in other subjects such as law and medicine.[11] This could be positive for social mobility as the demand for STEM skills grows. In addition, technology could also create more opportunities for individuals to re-skill themselves through the use of free/low cost online learning platforms (such as MOOCs).

RECOMMENDATIONS

To ensure social mobility improves in the face of future challenges, a range of interventions are needed across job opportunities, development of individual capabilities and access to education and work:

Increase job opportunities

1. Ensure continued economic growth through supporting innovation and entrepreneurship to drive high value job creation. In addition, seize opportunities that will come with technological change. Build a competitive advantage in the "industries of the future" and where the UK could be a global leader such as in FinTech. This will require training the UK workforce to excel in these skills (further discussion below).

2. In addition, government policy should support greater geographic distribution of opportunity. Incentives can encourage companies to establish outside London and the South.

Develop individual capabilities

3. Interventions that tackle inequalities while children are young have potential for the most lasting impact. Early interventions are key given that most of the gap in educational attainment is created by age five. Recommendations include a national definition of school readiness and an innovation fund to support those with effective local parenting initiatives (such as The Sutton Trust's Parental Engagement Fund).[12]

4. Teaching quality must be improved, particularly in disadvantaged schools. Teachers in the UK currently experience lower wages, longer working hours and have a less prestigious career than their peers in other developed countries. This needs to be reversed to attract and retain the most talented graduates into teaching.

5. The 'summer gap', where more advantaged pupils continue to develop and less advantaged pupils fall behind, must be closed. This could be addressed through longer school days, with time dedicated to supervised homework, as well as compulsory digital programmes to support learning through the summer.

6. State schools must do more to develop "soft" or "essential life skills" in less advantaged pupils, through a richer programme of extra-curricular activities.

7. Promotion of the apprenticeship model and vocational tracks, including the new 'T-levels' will be needed to ensure the supply of skills meets the demand in the labour market. Apprenticeships should combine workplace training with off-site study, and lead to a professional accreditation. There should be a focus on higher and advanced apprenticeships, along with automatic progression. Reform of

technical education through 'T levels' should be properly funded, and young people given good advice to ensure informed choices.

8. More should be done to increase the study of STEM subjects (particularly among women) to ensure young people are equipped for the changing world of work. Initiatives such as teaching coding in schools are welcomed.

Ensure fairer and more equal access to education and the job market

9. Given the significant wage premiums graduates command, the gaps in elite university acceptance by socioeconomic background are a clear barrier to mobility. Some progress has been made, with universities publishing access targets and being monitored on progress against them. A common set of metrics which all universities are required to report to the Director of Fair Access would allow further scrutiny and comparison of access efforts.

10. While it is a positive development that the Government and leading businesses are collaborating to create a set of common measures to track social mobility in the workplace, a further step would be to roll out internship and apprenticeship schemes aimed at increasing participation of disadvantaged students.[13]

1. INTRODUCTION

Social mobility is critical for a fair society where people from any background are able to succeed in life. Social mobility is important in terms of creating a fairer society, fostering social cohesion and maximising society's productivity. A fairer society rewards merit and hard work, rather than having success determined by inherited advantage. Socially mobile societies are also arguably more productive because they enable the widest talent pool to be developed and utilised, ensuring talents are applied where they can have the greatest impact. This could have knock on benefits for boosting economic growth. Mobile societies are also more cohesive as they allow opportunities to be fairly accessed by all; minimising conflict and maximising feelings of trust in society.[14] There is also evidence that strong social mobility improves levels of wellbeing in society.

In recent decades, there has been considerable attention paid to social mobility, particularly in the UK and other developed countries. Political leaders have recognised the importance of building socially mobile societies that work for all their citizens. The greater availability of data has also enabled researchers to bring new perspectives and an improved understanding of the topic. One of the seminal studies was the 2005 paper by Blanden, Gregg and Machin that shed light on the low and declining state of social mobility in the UK for those born between 1958 and 1970.[15]

A decade on, much has changed in the UK. We have seen change in political leadership, the financial crisis of 2007-08 and the subsequent period of Government 'austerity', the continued growth of online and digital technologies, the effects of globalisation, and most recently the vote to leave the European Union. In the context of this changing environment, this report examines the state of social mobility in the UK today and considers what has driven recent changes. In the face of trends shaping the future of work, how can we expect social mobility to evolve? And given the likely challenges and opportunities, how can we act to improve social mobility in the future? This paper seeks to provide perspectives on these questions.

2. WHAT IS SOCIAL MOBILITY?

Social mobility is about **breaking the link between an individual's parental background and their opportunities to reach their full potential in terms of income and occupation**. It is about better opportunities for each generation and making access to these opportunities fairer, regardless of background.

Social mobility is usually measured through income or social class:

- **Income** mobility compares parental income to the adult earnings of their children.
- **Social class** mobility examines whether individuals are in the same or different social class to their parents. This approach typically categorises occupations into "classes" (e.g. professional vs routine manual) and ranks them on factors like social prestige, level of education required and pay.

There are other ways to understand social mobility; one is in terms of "life chances", measured by a range of outcomes including education, health and justice outcomes. However, the research in these areas tends to be less focused on social mobility and is less developed (educational outcomes is an exception). For this report we focus on income and social class measures of mobility. Generally we use income as an indicator as it is tangible, easily measured and has a clear relationship to aspects of quality of life. Social class is used as it gives a view of salary, job prestige and level of education required by the occupation. Though neither is a perfect indicator, they form the basis of most research on social mobility.

Social mobility can also be measured in **absolute** or **relative** terms:

- **Absolute** mobility compares an individual's income or social class to their parents. Upward social mobility is when an individual's income or social class is higher than their parents
- **Relative** mobility examines the position (or 'ranking') of an individual's income or social class relative to the rest of society, and how linked this is to their parents' position in society. When an individual's income or social class position in society is not very linked to that of their parents, this is high relative mobility.

3. WHAT DRIVES SOCIAL MOBILITY?

3.1 Drivers of social mobility

There are **three key drivers** that directly contribute to social mobility, ensuring that there are both better and fairer opportunities (see Exhibit 1).

- **Economic opportunities:** The quantity and quality of jobs available in the economy.
- **Capabilities development:** Equipping people with the skills and capabilities to do these jobs.
- **Access to education and jobs:** Having equal opportunities to get these jobs, regardless of socio-economic background, gender or race.

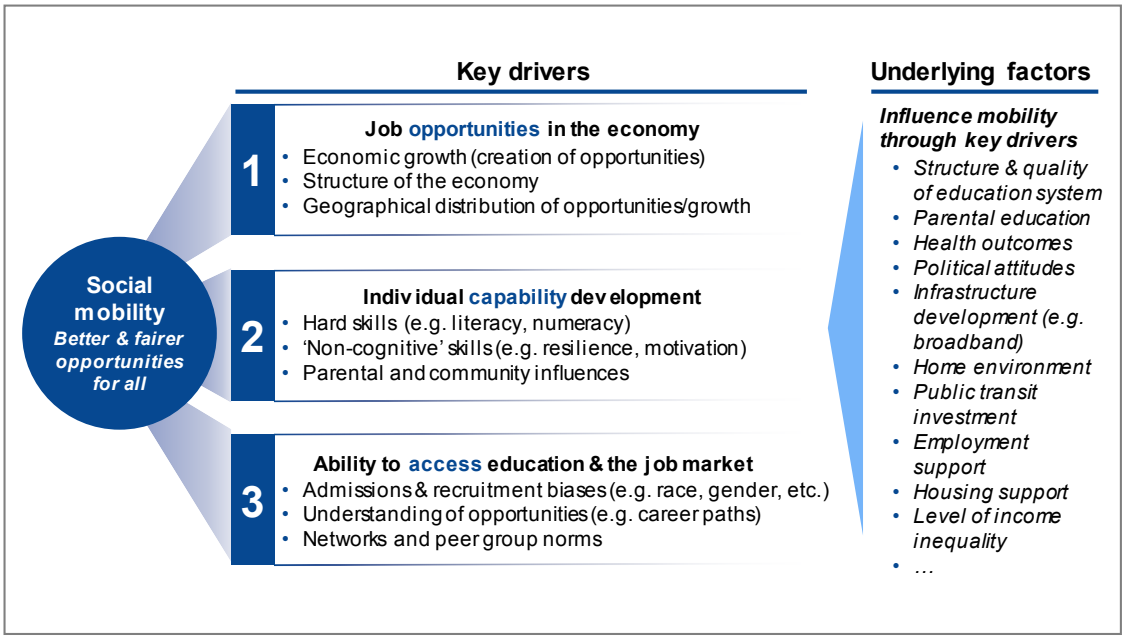

Exhibit 1: Drivers of social mobility

While we see these as the primary drivers, there are many other indirect factors that impact social mobility. These include the home environment, public housing and infrastructure, and health outcomes (such as smoking, obesity, mental health).[16] Some research suggests that these underlying factors are relatively more important for those from the least advantaged families, because individuals need a basic standard of living to take advantage of better education and job opportunities. Another important factor is parental education.[17] Though important, these indirect factors are difficult to influence in the short to medium term. For the purposes of this paper, we focus on the direct drivers (economic growth, capability development, and access) that impact individuals of all backgrounds.

3.2 Economic opportunities

For people to improve their social standing there must be 'good' jobs available to them. Job creation in the economy (often measured as real economic growth) is vital for social mobility. However, not all growth promotes better and fairer opportunities. Some of the economic considerations that impact social mobility include the number of jobs created, the income level of these jobs, job security, and the geographic

distribution of opportunities.

Social mobility as measured by income fell for those entering the job market from around the 1980s. This deterioration can in part be explained by a corresponding decline in economic opportunities over a similar period.

The decades following World War 2 saw a boom in job opportunities and rapid improvement in social mobility (albeit from a low base). This period saw significant structural change in the economy, with many more well-paid and professional jobs created and strong double-digit wage growth.[18] However, by the mid-1960s growth in the number of "good" (professional and managerial) jobs and real wages slowed, while regional disparities in economic growth also began to open up.[19]

Since the 1980s, job opportunities have deteriorated further, compounded by the recent financial crisis. For millennials (born from the mid-80s) real wages have not grown, putting them on course to be the first generation in modern times to earn less than their parents.[20] The recent financial crisis has also increased downward pressure with wages in the UK hit harder than any other European country, besides Greece.[21] Income inequality has increased over this period, as well as further widening of geographical disparities, placing pressure on social mobility. There has also been a "hollowing out" of the labour market: the number of medium skilled jobs has fallen by 10% since 2002, while there has been a corresponding growth in high and low skilled jobs.[22] Although those displaced from medium skilled jobs have tended to take on higher skilled jobs, the loss of these middle rungs on the job ladder is likely to make it harder to move up the job ladder from a low skilled job to a high skilled job.[23]

If recent trends of falling wages, rising inequality and the hollowing out of the labour market continue, then there has likely been deterioration in job opportunities that would enable social mobility. The question still remains: is access to these opportunities becoming fairer? For this, we need to look at the other drivers of social mobility – capability development and access to opportunities.

3.3 Individual capabilities development

Capabilities refer to a broad set of skills that are both cognitive (such as intelligence, good memory, and other hard skills, such as numeracy and literacy) and **non-cognitive skills** or **"essential life skills"** (such as confidence, determination and aspirations). These skills are developed through formal education, but also in the home and the community. There is lots of evidence that these capabilities (especially those acquired in formal education) significantly improve career success and are therefore vital for social mobility.[24]
To understand the link between social mobility and capabilities we generally compare the educational attainment (at all stages, from pre-school to university) of those from the richest and poorest families.

Educational gaps grew for those born during the 60s to late 70s, which have been linked to the decline in income mobility. Researchers from the LSE found increased inequalities in higher education over this period, with a poor child five times less likely to complete a university degree than a rich child (comparing the top and bottom 20% by parental income). This rose from a poor child being three times less likely approximately a decade earlier.[25]

Since the 80s, improvements have been made in closing educational attainment gaps. Between 1985 and 1994, the gaps in educational attainment have narrowed such that children born in 1994 from the most deprived 20% of families were the equivalent of one school term closer to the reading ability of their peers from the most advantaged 20% (though a gap of more than two school years remains).[26] For GCSE pupils, the gap in achievement between the richest and poorest 20% narrowed by 13 percentage points (to 18%) between 2002 and 2011, with London schools in particular seeing rapid improvement since the 1990s.[27] Furthermore, gaps in university attainment between the most and least deprived 20% narrowed by three percentage points (to 37%) between 2004 and 2009.[28]

However, large gaps in educational attainment remain at all major milestones. Only 36.7% of disadvantaged children achieved five good GCSEs (grades A*-C, including English and Maths), compared with 64.7% of other pupils.[29] State-educated children from the most advantaged 20% of families are 37% more likely to attend university by age 19 than those from the least advantaged 20%.[30] Even once children from more deprived families achieve a place at university, they are still disadvantaged compared to their peers; those from the least advantaged fifth of families are 23% less likely to achieve a 2.1/First than those from the most advantaged fifth.[31]

Of concern is that there has been no narrowing of the gap at the highest achievement levels. For example, when considering 3A*-B grades for A-levels, no improvement has been seen in the gap between FSM and non-FSM pupils between 2004 and 2010. On the contrary, the gap in those achieving the top 20% of GCSE scores between FSM and non-FSM pupils appears to have grown between 2004 and 2010 (from a 16% gap to 20%).[32] Though recent increased take-up of the English Baccalaureate has been positive for high-achieving pupils from disadvantaged backgrounds.[33]

These educational gaps are driven in part by differences in development support outside school, which varies by socio-economic background. Studies have shown that over school holidays "summer learning loss" is observed: low income students experience a decline in reading skills, whereas middle income students still experience modest gains. These different trajectories are linked to socioeconomic differences in parenting and the home environment. For example, children from working class backgrounds are on average read to less by their parents. Research suggests **that these gaps in educational attainment appear early in life** and are compounded throughout the education of the child, with schools having limited impact in narrowing these gaps.[34]

In addition, differences in "essential life skills" create barriers for social mobility. "Essential life skills" (or "soft" skills) are the skills people need for learning, work and life, such as motivation, confidence and communication skills. Recent research by the Sutton Trust reveals that differences in these skills exist between children from different socio-economic backgrounds.[35] They highlight the growing body of research that these skills are essential for securing jobs and hence are vital for social mobility. In addition, researchers at the LSE find that these skills not only directly impact job outcomes, but significantly impact educational attainment.[36] While focus on this area in schools is improving, gaps in "essential skills" remain unaddressed and a barrier to social mobility.

3.4 Access to opportunities

Issues of access arise when individuals have comparable capabilities but there remains an apparent preference for those that come from wealthier backgrounds. Various factors contribute to access barriers, including:

- **Networks** based on family or social circles can provide unequal access to opportunities.[37]
- **Access to information** about opportunities, often impacted by family background.
- **Discrimination** based on class and/or wealth (or those correlated with class, e.g. race).

Historically, access to job and education opportunities has been improving. More state-educated children are completing university and attending top universities than ever before. From 1970 to 2012 there was a 15 and 13 percentage point increase in the proportion of state school pupils accepted to Cambridge and Oxford respectively.[38] Oxford's proportion of state-schooled admissions has increased to 59.2% in 2016.[39] There are also indications of improved access to education and top jobs for women and ethnic minorities. Numbers of BAME students are increasing year on year, although white British students are still 16 percentage points more likely to be accepted to Russell Group universities than Black African students with the same grades.[40]

However, there remain barriers to elite higher education. Much of the aforementioned improvement is concentrated in the lower-ranked universities, and there has been little narrowing of the gaps in elite university attendance.[41] There h**as been no trend of improvement in the gap in Russell Group attendance** by socioeconomic status. The gap is even starker for Oxbridge attendance; **state school students eligible for free school meals (FSM) are 55 times less likely to attend Oxford or Cambridge.**[42] Despite improvements in state school admissions to Oxbridge, **in 2012/13 only 50 free school meals students were admitted.** Research indicates that around 30% of this gap in elite university attendance between rich and poor students cannot be explained by academic ability.[43] Evidently, access to opportunities is not equal.

The gaps in elite university attendance by socioeconomic background are particularly concerning given the inequality in returns to higher education. Russell Group graduates earn on average £200k more in their lifetime than non-Russell Group graduates; Oxbridge graduates earn over £400k more.[44] In addition, those with post-graduate degrees have seen their earnings rise, while the value of having only an undergraduate degree has fallen or remained constant.[45] These changes are likely to benefit children from wealthier backgrounds who are overrepresented at elite institutions and post-graduate courses, creating a negative spiral for mobility.

A key barrier to mobility in higher education is wealthier parents' ability to build a "glass floor" by spending greater resources on their children's education to increase the chances of attending a top university and protecting against downward mobility. This can be seen in wealthier families' investment in extracurricular activities and private tuition.[46] In addition, there is evidence that wealthier parents are targeting the best state schools, driving up house prices in the surrounding area. This makes it harder for students from poor backgrounds to access good state schools as they are pushed out of the area.[47] Research by The Sutton Trust also highlights that students from wealthier backgrounds are often advantaged in applying to Oxbridge by having greater access to information through their schools and

networks.[48] All these factors create a "glass floor" for children from wealthier backgrounds.

Equality of access is also an issue for job opportunities. A study of HMRC tax records shows that even when less well-off students attend the same university and study the same subject as their wealthier peers, they earn around 10% less per annum (comparing the bottom 80% to the top 20% by parental income).[49] Many top professions such as law and medicine are dominated by alumni of private schools and Oxbridge: 74% of top judges and 61% of top lawyers were privately educated, despite private school pupils making up 7% of children.[50] This impedes social mobility insofar as Oxbridge remains dominated by children from wealthier backgrounds. Another prominent example highlights the remaining access challenges for elite jobs: the intake of the Government's flagship Fast Stream graduate programme is less diverse by social background than even the student population of Oxford University.[51] This is likely because a "glass floor" similarly appears to exist for access to jobs, with children from wealthier backgrounds often receiving greater parental support. In an increasingly competitive job market, unpaid internships and "soft skills" have become more important to securing a top job, benefiting those from wealthier backgrounds. Furthermore, research by the Prince's Trust demonstrated the importance of parental networks, with children from poorer backgrounds being half as likely to find work experience through their parents as the average child. This may explain why the UK ranks alongside the Nordics for levels of educational mobility, but performs poorly among OECD countries for income mobility.

3.5 Where is social mobility at today?

Since children born in the last 15 years have not yet entered the labour market, we cannot directly measure how social mobility has changed over this period. However, changes in the drivers of social mobility can indicate the direction of change. The narrowing gaps in attainment at all stages of education, and the greater proportion of state school pupils attending Oxbridge, are likely to have improved social mobility. However, stagnating real wage growth and growing income inequality may outweigh these benefits to create an overall decline in mobility. These challenges were more acutely felt in the aftermath of the recent financial crisis, which has had a major impact on the entry level prospects of many recent graduates.

Looking ahead, continuing to narrow the attainment gaps at both the school and university level will have a positive effect on social mobility. Greater investment in pre-school education in recent years may also contribute to closing educational gaps more quickly.

Social mobility is expected to be negatively impacted by weak economic growth constraining job creation, compounded by the uncertainty around Brexit. In addition, social mobility at the bottom of the income spectrum is likely to weaken going forward. While the "glass floor" ensures opportunities at the top-end of the income distribution, the UK has historically had modestly better mobility at the bottom-end.[52] However, continued "hollowing out" of the job market will make upward mobility even harder for those in the lowest skilled jobs.

Inequalities in access to opportunities are likely to be compounded by weak economic opportunities. The significant and unchanged gaps in access to Russell Group universities, combined with more unequal

returns to education, raise concerns that students from wealthy backgrounds will be able to "hoard" the best education and employment opportunities. The "hoarding" of opportunity is likely to be further compounded with a weaker economic outlook as competition for top jobs becomes fiercer. Furthermore, recent changes to government policy (including higher tuition fees and the elimination of maintenance grants) may have a disproportionate impact on low income students, reducing their access to higher education.

Whilst the increasing number of students obtaining degrees is largely positive, it may also have concerning implications for equality of access to jobs in future. As more students with undergraduate degrees enter the job market, employers are forced to differentiate more on "soft skills" and post-graduate qualifications, both of which give those from higher socioeconomic backgrounds further advantage. Without changes to post-graduate funding and the way "soft skills" are taught in schools, the positive effects of reducing the gaps in educational attainment may be undermined.

Taken together, **moderate gains in social mobility from increasing equality in educational attainment are likely be more than offset by a weak economic outlook and significant inequalities in access to education and job opportunities.**

Box 1: What jobs could be at risk through automation?[1]

Technological disruption through automation is likely to result in the destruction of jobs. A recent Bank of England study estimates that up to 15 million jobs in the UK could be at risk of automation.[1] Routine-based jobs in predictable environments can easily be described by rules and hence are most at risk of automation.

Several paraprofessional occupations have a high risk of automation. Paraprofessional jobs are supporting roles that do not require a professional license, and sometimes provide an entry route for qualification into the profession. Around 280,000 book-keepers, payroll managers and wages clerks in the UK could see their jobs disappear following the transition towards cloud based accounting, increased use of robots and improved level of automation. A further 75,000 paralegals in the UK could also face automation of their jobs through technology. However, some groups of paraprofessionals such as care assistants and teaching assistants are unlikely to be automated given the high degree of human interaction and empathy required.

A further 2.6 million jobs in other administrative and secretarial occupations have a high probability of automation. A third of employment in these occupations is in three industries: public administration, financial and insurance activities, and wholesale and retail trade. For example, the financial sector is seeing a wave of technological innovation, including the introduction of robo-advisory, robotic process automation, and artificial intelligence. These could reduce the need for middle and back office jobs by up to 50 - 70%. For instance, 38,000 credit controllers could be replaced by robots trained by users to automatically and more efficiently complete repetitive tasks. These roles are currently performed by a mix of graduates and non-graduate employees and are often middle income jobs. Other similar occupations likely to be significant impacted include bank and post office clerks, sales administrators, office managers, and secretaries.

Other occupations such as sales and customer service and skilled trade are also at risk. There are 2.3 million roles in sales and customer service in the UK including retail assistants, cashiers, salespersons, and telephone sales. Automatic cashiers are already supplanting human cashiers. Further rolling out of existing technologies, as well as new technologies such as voice and image recognition and natural language processing (ability to interpret human language, tone, and pitch and take appropriate actions) will put these jobs at risk. The UK also has 2.5 million jobs in skilled trade including food operatives, machinists, and transport and machine operatives that could be disrupted through advances in robotics and automation.

The disappearing of these jobs will adversely affect social mobility with the majority of impact felt by those from middle and lower socioeconomic backgrounds who are more likely to hold these jobs. In addition, the loss of middle income jobs will contribute to the ongoing 'hollowing out' of workforce. This could lead to fewer jobs for middle income and mid-skill workers, removing a potential career step for upward mobility.

1 All figures below, unless stated otherwise, are extracted from the ONS job census of 2011 for England and Wales
2 Andew G Haldane, Speech: Labour's Share, 2015

4. THE FUTURE OF WORK AND SOCIAL MOBILITY

Academics, non-profit organisations, governments and businesses have all identified the future of work Academics, non-profit organisations, governments and businesses have all identified the future of work as a critical topic. It is widely acknowledged that the nature of work will change dramatically over the next two decades.[53] The shifts are expected to include disruptive trends (rapid advances in technology and new ways of working) as well as broader long term trends (demographic shifts, globalisation and greater gender equality). However, while the future of work has received considerable attention, there has been limited exploration of the impact on social mobility, although this is likely to be significant. In section 4.1, we examine some of the key trends shaping the future of work. In section 4.2 we put forward a perspective on the future of work and the impact on the labour market. Finally, in section 4.3 we describe the possible ensuing challenges and opportunities for social mobility.

4.1 Trends shaping the future of work

Disruptive technologies

Technological change is significantly impacting today's economic and business structures and hence the future of work.[54] Major developments are taking place in **hardware and software**. Manufacturing is being transformed by a revolution in robotics that is making robots more autonomous, flexible, cooperative, and cheaper.[55] Additive manufacturing techniques such as 3D printing are becoming commonplace, with the falling cost of 3D printers (from £235,000 in the 1980s to £1400 today) enabling smaller scale, customised and decentralised production. The integration of autonomous capability is also on the rise, with autonomous vehicle features expected to be included in 25% of the new car market by 2035.[56] Furthermore, developments in augmented reality and artificial intelligence are expected to change the world in ways not yet fully understood.

The acceleration of **connectivity**[57] and the integration of technology into daily life is expected to continue. Examples of this include the widespread adoption of cloud technology, the challenges of cyber security, and the "Internet of Things" where connected devices will be commonplace. For example, 30 billion connected devices are expected to be installed by 2020 compared with around 10 billion today.[58] We are already seeing early change brought about by the connectivity revolution in consumption patterns, including a shift towards online retailing, the greater importance of peer recommendations, and growth of the "sharing economy".

The **big data and analytics revolution** will impact the work of tomorrow through the rapid growth in the collection, storage, and real-time analysis of data in business and in customer interactions.[59] Since the rise of the digital age, the amount of information handled has exploded. For instance, Neuman et al. have shown that the total media supply (television, internet, newspapers and other media) to US homes rose 1700% between 1960 and 2005 (an annual growth rate of nearly 7% for 45 years).[60] The application of big data and analytics will impact virtually every industry as the insights possible provide opportunities to transform areas such as marketing, operations, research and development, and supply chain.

These technologies are expected to lead to the destruction of existing jobs (specifically routine-based jobs such as product assemblers), creation of new jobs (such as translating big data into business insights), as well as changes in the mix of skills and capabilities demanded in future. We will detail the impact of these changes on the labour market in the next section.

New ways of working

Ways of working are expected to undergo significant change from greater industry volatility and technology developments that make new business models possible. Companies today see higher volatility in demand, company profitability and industry position, requiring greater strategic agility.[61] Businesses are facing the continued deconstruction of the "traditional firm" with the rise of the sharing economy. In many industries, leading firms will increasingly need to play the role of 'network orchestrator' as opposed to product core competence.[62] For example, Airbnb, one of the largest hotel chains by market capitalisation, is a market-creator of rooms but does not itself offer rooms to customers like traditional hotel chains.

Ways of working will also be further impacted by changes to **individual preferences** regarding work. There has been a rise in part time work, contract work and freelancing, driven in part by a desire for improved work-life balance and the need to accommodate child and elderly care.[63,64] The number of freelance workers has grown steadily by 4.5% p.a. since 2008, to reach around two million in the UK in 2015.[65] One in three jobs in the UK is already part-time,[66] and this is expected to grow. These changes are also translating into less rigid career structures and a rise of the "portfolio career" (holding multiple jobs at the same time). For example, millennial workers (born 1981-2000) are expected to have an average of 17 jobs and five careers over their lifetime,[67] compared to 1970 when males had on average between two and five jobs.[68]

Demographic shifts

The shape of the population will shift in the coming 20-30 years, transforming the demand for goods and services and the supply of labour. The UK will see population growth at 0.55% p.a. through to around 2040, a rate five times the EU average.[69] Net migration is expected to contribute to around half of this growth,[70] and although potentially impacted by Brexit, the UK's natural population growth will still be significantly higher than the rest of Europe. The UK's population will age, with the largest age group of workers shifting from 44-46 to 54-56 by 2020,[71] and an almost doubling of the population aged 75+.[72] The labour force is also expected to continue to urbanise, with the urban population projected to rise from 82% in 2014 (78% in 1990) to 89% of total population by 2050.[73]

Globalisation

Despite Brexit, it is likely that the UK will be increasingly integrated into the global economy. Asia will provide 59% of global middle-class consumption by 2030 versus 23% in 2009, leading to new trade opportunities.[74] At the same time, globalisation will open up the UK to greater competition from skilled workers abroad, with further outsourcing likely for a range of functions, including production & development, infrastructure & data centre services, sales, procurement and design & engineering.[75] However, there is potential for the UK to in-source higher value activities, such as high value manufacturing in the automotive, offshore wind, and nuclear sectors.

Greater gender equality

Women's workforce participation has steadily risen over the last several decades and improvements to gender equality are likely to continue. Women are expected to comprise 56% of the net increase in jobs between 2010 and 2020. This is supported by the higher levels of female educational achievement, with 4% more higher skilled females than males predicted by 2020 (compared to just 2% in 2010). As a result, women are expected to secure a greater share of new jobs in higher-level occupations, with the gender pay gap expected to further narrow.[77]

Numerous other important global trends, such as increased workforce mobility and changes linked to climate change have been considered, but not represented, given their less direct relevance to the labour market and social mobility.

4.2 The Future of Work

Most studies point to a future of work vastly different from the past, which was characterised by relatively stable industries, individuals pursuing a single career with a small number of employers, and a set of skills mostly relevant over the course of a lifetime. The trends described above are expected to bring about significant changes to the nature of work.

Structural change in the job market with creation and destruction of jobs

Technological disruption and globalisation are likely to result in the destruction of jobs. A recent Bank of England study estimates that up to 15 million jobs in the UK could be at risk of automation, with 63% of all jobs impacted to a medium or high extent (see Exhibit 2).[78] This is broadly consistent with similar studies for Australia and the USA that estimates between 37% and 66% of all work could be automated, with between 60-75% of all jobs significantly impacted.[79,80]

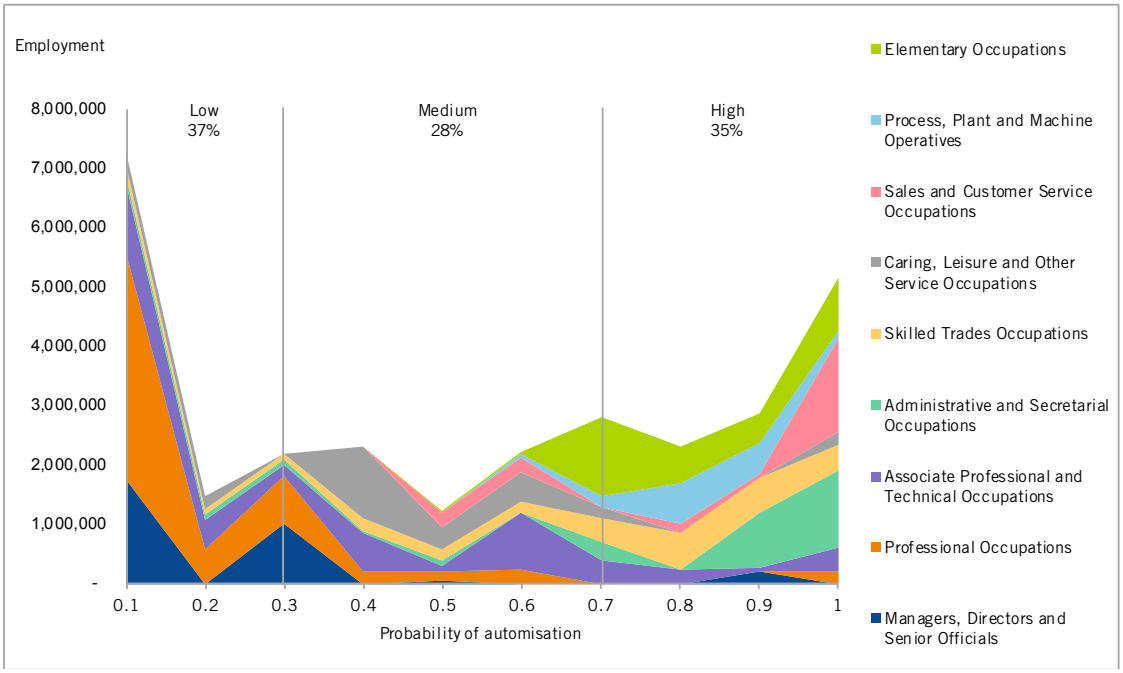

Exhibit 2: Impact of automation on UK jobs

Routine-based jobs are most at risk of automation versus jobs that cannot be easily described by rules. The level of routine is expected to be the most important dimension to whether a job can be automated than whether the job is manual or cognitive (see Exhibit 3). Jobs with a high routine component can be found across both manufacturing and service sectors and in low and middle income professions. For discussion on jobs potentially at risk, see *Box 1*.

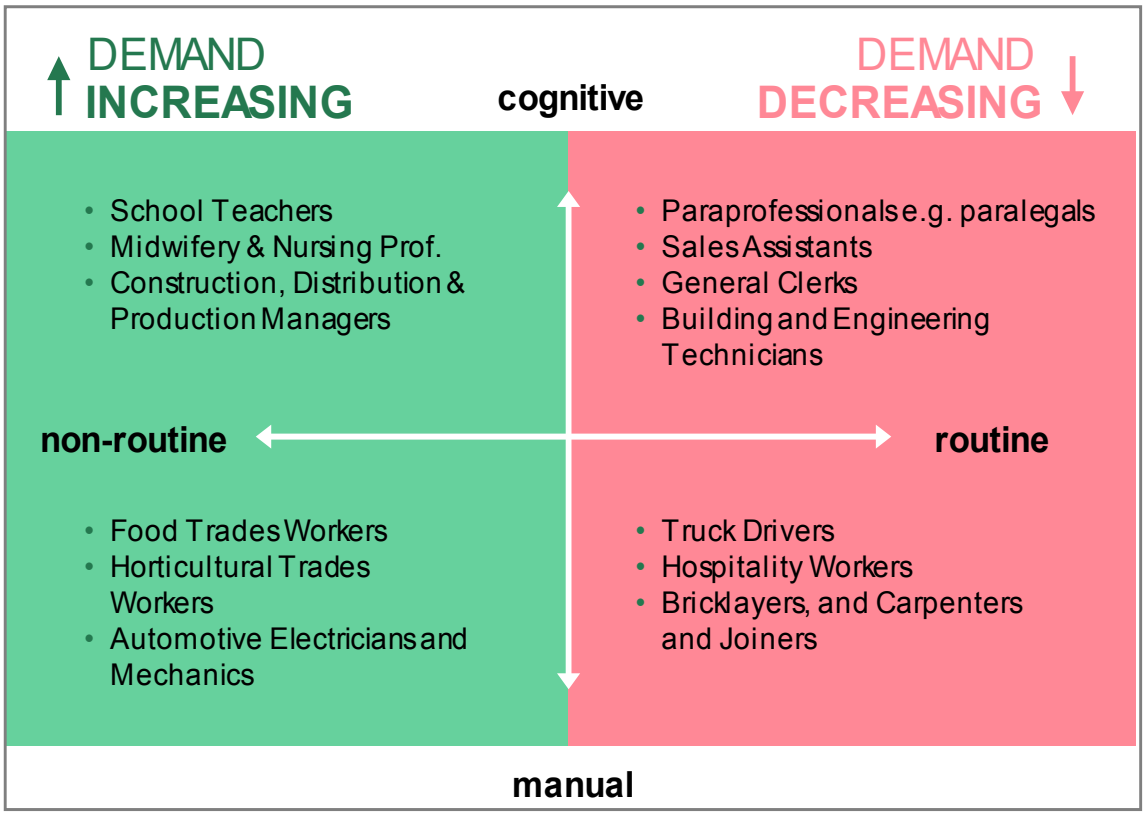

Exhibit 3: Potential increase and decrease in demand by job type

While it is difficult to predict where job creation may take place, technological change and new ways of working can be reasonably expected to increase demand in certain areas. The ICT sector and high-technology manufacturing[82] are likely to see significant growth in employment as economic activity shifts to these sectors. The UK ICT sector could require up to 300,000 recruits by 2020 at professional, manager and associate professional levels.[81] The demand for certain professional services is also likely to grow. For example, there will be an increased need for managers able to support organisational transition amidst considerable industry and technology change, and the financial sector may see job creation due to the increased need to save for a longer retirement.[83] Some estimate an increased demand of around two million high-skilled workers across sectors. It is also expected that employment in the personal and health care industry will rise due to an ageing population and a greater proportion of disposable income spent on services in these sectors.

The net impact of technology is difficult to assess. It is, however, reasonable to assume that the speed of technology developments will cause more job destruction than can be replaced in the short to medium term (as was similarly the case during the Industrial Revolution in the mid-18th century). We can therefore expect lower employment in the near term as structural change from technology takes place. Over the longer term, the conventional view is that technology is wealth and employment creating. However, several economists believe that the nature of technological change today is such that it might be different this time.

If this is true, there will be considerably more dramatic impacts on the labour market and social mobility.

Decline of stable full-time employment

An increasingly volatile environment and the growing desire for more flexible ways of working will create opportunities as well as place pressure on workers.

The **level of freelancing and self-employment is expected to continue to rise rapidly**. UKCES forecasts that this type of work will represent half of the increase in employment by 2024, with an increase of almost a million part-time jobs.[85] These large increases could be a sign of under-employment in the labour market (that is, many workers who would like to have a full-time job are unable to find one and choose the second-best best option which is self-employment or part-time work).

With the increasing flexibility of work and employment conditions, work could prove **psychologically more demanding** than the traditional full-time permanent job due to the loss of steady income. There is evidence that the blurred lines between work and home life can cause increased levels of burnout.[86] The need to constantly secure the next job, as well as the social isolation, may lead to increased anxiety and stress for the new generation of workers. In addition, although freelancers' wages are higher on a per hour basis, it is unclear whether in aggregate freelancers are financially better off. The overall impact on individuals will be directly linked to their ability to find work.

Greater demand for technical skills with a shorter 'half-life'

A shift to more technologically intensive industry will **increase demand for STEM like skills** such as mathematics, statistics, engineering, and business operations. These skills will be required to respond to the increased need to create, design and operate advanced devices of the future including robots, 3D printers, drones, automated systems, and artificial intelligence devices. Computing and coding skills and the ability to develop user interfaces will be essential as technology continues to transform business with a greater emphasis on digital literacy and visual design. In addition, the labour market is likely to see an increased demand for high-tech manufacturing skills such as plastic electronics and nanotechnology.

The speed of technological change will require these skills to be acquired rapidly, but they will also become obsolete faster (with a shorter 'half-life'; the time it takes for half the knowledge in a particular domain to be superseded). For example, the Institute of Electrical and Electronics Engineers estimates that the half-life of an engineering degree was about 35 years in 1960 versus about five years in 2013. As such, re-skilling and continued education will become the norm. This may be further compounded by the more frequent career changes of the millennial generation.

Increased value of "soft" or "essential life skills"

Business leaders cite the increased importance of a broad range of "soft" skills as essential to succeed. These include skills in content, process, social skills, system skills, and resource management.[87] A further study showed that soft skills are a good predictor of labour market success.[88] There is also a strong relationship between soft skills and positive academic and broader life outcomes, as highlighted by the Education Endowment Foundation and Cabinet Office. Their work assembled compelling evidence of the

correlation between non-cognitive factors, specifically self-efficacy, motivation, self-control, and school engagement, and **positive outcomes for young people** such as academic attainment, improved finance in adulthood and reduced crime.[89]

Increasingly volatile industry structures, the decline of stable career paths and automation of routine work are likely to place a greater premium on these essential life skills in the future. More **workplace collaboration from increased part-time work and job-sharing** will require increased emotional intelligence, empathy and communication skills.[90] The shift towards **less stable career** structures will place greater emphasis on entrepreneurship, confidence, resilience, self-organisation and pro-activity. Balancing employees' careers with personal lives will require managers and workers alike to be more **flexible and adaptable as well as display more empathy**. Finally, the growing diversity and internationalisation of the workplace will necessitate increased **cross-cultural skills and mindsets.**

4.3 Impact on social mobility

These changes in the labour market are likely to have significant impacts on social mobility.

Challenges

• Job losses will adversely impact routine occupations, with most of the impact falling on those from low and middle socioeconomic backgrounds

As earlier identified, up to 15 million jobs in the UK could disappear due to technological disruption (with further losses possible through outsourcing). The number of routine manufacturing or service jobs is likely to significantly reduce, with mid or low skilled workers most impacted. Given that those from less advantaged backgrounds are less likely to obtain a degree and enter high-skilled employment, the disappearance of these jobs is likely to most affect them, undermining social mobility.

Technological disruption is also likely to continue the 'hollowing out' of middle income jobs seen since 1990. Routine jobs that can be easily programmed, such as in administration and production, are typically found at middle incomes and are at higher risk of being automated versus some lower income jobs (such as social care and personal services) and many higher income jobs.[91] This phenomenon could result in two groups with very little mobility: an elite high skilled group dominating the higher echelon of society and a lower-skilled, low-income group with limited prospects of upward mobility and an irremediably broken social ladder.

The reduction in jobs that provide a stable and steady source of income is likely to lead to more time spent searching for work between contracts and jobs. This could be exacerbated by the growth of zero hour contracts. Both phenomena would result in further immobility as workers often settle for a job for which they are over-qualified, rather than wait for the appropriate job.

• Increased value of "essential life skills" in employment is likely to benefit those from higher socioeconomic backgrounds

As the overall rate of educational attainment in the UK population rises, there will be fiercer competition to stand out and "essential life skills" are likely to be a key differentiator. The Sutton Trust has shown that social or non-cognitive skills such as aspiration, confidence and personality, which are likely to be related to family background, can have an important effect on income and hence may play a role in social mobility.[92] Similarly, the Social Mobility and Child Poverty Commission found that children from higher socioeconomic backgrounds are better prepared with the "soft"' skills that make them successful in elite professions.[93] Recruiting processes were found to be biased towards middle-class backgrounds with the capacity to present a "polished" appearance and the ability to act in a confident manner highly important in the selection process. As "soft" skills become even more important, those from lower socioeconomic backgrounds are likely to be at a disadvantage.

• The increasing need to re- and up-skill could create new socioeconomic barriers

The need for continuous re- and up-skilling will raise the cost and time required for education. The large gaps in post-graduate qualification by socioeconomic status would suggest that those from lower socioeconomic backgrounds are likely to be disadvantaged, as they may be less able to invest in skills acquisition and re-skilling over the course of their lives. In addition, existing regional disparities in educational opportunities could reinforce social immobility, with those in less advantaged regions less able to access opportunities to re-skill or up-skill themselves.

• Other potential winners and losers in the labour market

The forecast population growth, higher levels of immigration, later retirement of an aging population, and an increased level of female workforce participation will result in significant growth of the workforce and increased competition for jobs. Given gaps in educational attainment, soft skills and use of family networks in obtaining employment, less-privileged young people are likely more at risk. Similarly, greater gender equality and the rising educational attainment of women versus men may make it more difficult for men to access the job market in the future.

Opportunities

• Openness of STEM-based job opportunities to a broad mix of socioeconomic backgrounds

A large increase in demand for STEM jobs is expected, with the UK currently facing a considerable shortfall in supply. The Social Market Foundation has estimated an annual shortfall in domestic supply of around 40,000 STEM graduates.[94] Given this significant demand for STEM skills, educational achievement in hard sciences could offer access to higher-skilled jobs regardless of background. Research by Natasha Codiroli[95] shows that the uptake of STEM subjects is not correlated to socioeconomic background. She assesses that "encouraging high attainment for low socioeconomic position students will have a large impact on uptake [of STEM degree subjects]". Encouragingly, there is also no pay gap between those from higher and lower social classes for engineers and scientists, unlike many other elite professions such as law and medicine. This implies that an expansion in STEM jobs could help foster social mobility.[96]

• Technology may create more accessible opportunities for re-skilling

The current job market is placing ever greater value on qualifications with increasingly specific knowledge. Qualifications for roles such as IT risk architects or enterprise IT business specialists are in high demand and could command a significant wage premium. Attainment of these specific qualifications is generally less differentiated by socioeconomic background than the traditional 'elite' degrees studied at Russell Group universities.

Technology is also reducing the cost of education and re-skilling. Online offerings such as MOOCs (Massive Open Online Courses) are providing education and qualifications for free or lower cost. Although there is currently limited data on the backgrounds of students taking up MOOCs and employer recognition,[97] free online education could improve access to knowledge and skills development for all. This could enable motivated students from poorer backgrounds to gain the required qualifications and enter a higher-wage career.

• Growth in non-routine jobs at lower skill levels (particularly jobs requiring interpersonal skills)

Numerous lower-skilled jobs are less routine in nature and cannot be easily described with a set of rules (such as caring roles, teaching assistants, and plumbers). As such, these jobs will not easily be automated and replaced. It is expected that demand for these jobs will continue to be strong and may even increase (particularly in the health and personal care sectors as the population ages). These lower-skilled jobs may provide entry points to the job market for those from lower socioeconomic backgrounds without high levels of education. Growing demand for lower skilled work could lead to rising wages for jobs in this sector. However, any rise in wages will depend on the labour supply of workers for these roles.

What interventions might be required?

The UK's relatively weak state of social mobility, and the challenges posed by the future of work, call for concerted action. To provide better and fairer opportunities for all, it will be critical for the UK to have continued economic growth and position itself as a leader in new, large, and high growth sectors (particularly in technology). It will also be important to improve access to education and jobs, and address social barriers and issues of bias. However, by the time individuals reach university or their first jobs, the ability to improve social mobility has reduced considerably. The most impactful interventions are therefore in fostering equality in early-years development. Ways to achieve this include improving educational attainment, building "essential life skills", expanding alternative pathways into work, and ensuring young people are equipped with the tools to succeed, with a range of potential interventions discussed in the recommendations section at the beginning of this report.

This report was prepared by Toby Owens and Ian Walsh (senior partners), Sek-Loong Tan (project leader) and Simon Beck (consultant) from The Boston Consulting Group.

To read the full report and references, please visit our new website on SuttonTrust.com.

SOCIAL MOBILITY AND ECONOMIC SUCCESS

How social mobility boosts the economy

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– July 2017

oxera

EXECUTIVE SUMMARY

Social mobility is a good in and of itself; it represents equality of opportunity for all. But the impact of increasing social mobility can be more significant than this. Creating the opportunity for talent across the social spectrum to be recognised and developed can boost the economy, increasing both productivity and gross domestic product (GDP).

The research undertaken for this report examined the relationships between social mobility, the matching of people to jobs ('matching'), and productivity. It finds that social mobility is positively related to productivity—a modest increase in the UK's social mobility (to the average level across western Europe) could be associated with an increase in annual GDP of approximately 2%, equivalent to £590 per person or £39bn to the UK economy as a whole (in 2016 prices).

One factor driving this relationship is the fact that improved social mobility should lead to an improvement in the match between people and jobs in society. Greater mobility means both that the talents of all young people are recognised and nurtured, and that the barriers to some jobs are reduced—these entry barriers exist because of biases in recruitment processes or inequality of educational opportunity. In a more socially mobile society, it is more likely that a job will be filled by someone with the highest level of potential to perform well in that job, rather than someone who may be less well suited but, for example, better connected.

This better matching means that the average productivity of a job should increase as employees are, on average, better suited to the job they are doing.

Evidence across a number of countries confirms that those countries with more social mobility have people better matched to job opportunities and a more productive workforce. This is consistent with the view that policies that increase social mobility—for example, through increasing equality of access to university education or the quality of primary education—can unlock the latent potential of high-aptitude individuals, enabling them to generate greater value in the economy in future than they otherwise would.

In spite of these benefits, we find that social mobility in the UK appears to have stagnated in recent years. Our findings are broadly consistent with other recent analysis commissioned by the Sutton Trust. There is evidence that social mobility has not improved over the last decade. However, our analysis tentatively suggests that social mobility today is slightly better than in the 1980s, in contrast to other work which did not find a material improvement even over this longer period. But although social mobility increased after the 1980s, improvements in mobility have since been less pronounced and this evidence suggests that it may have been stagnant in recent years since the economic downturn in 2008. The lack of significant progress gives a clear opportunity to increase social mobility in the UK, from which we can expect to see economic benefits, not just to the more mobile individuals, but to everyone.

These relationships are complex. Our analysis has found some promising early conclusions in relation to the broad economic benefits of investing in social mobility, but we also highlight a range of further research questions, which we hope other researchers will be encouraged to pursue.

INTRODUCTION

The Sutton Trust asked Oxera to examine historical changes in social mobility in the UK and analyse the link between social mobility and economic performance. For the purposes of this study, economic performance is measured in terms of economic output in the form of gross domestic product (GDP) or productivity, which measures how much of this output is produced per input, such as an hour worked by an employee. To examine historical changes in UK social mobility, we identified datasets that allowed us to estimate inter-generational mobility: how have the aspirations and achievements of individuals changed relative to their parents?

One of the most interesting paths through which our research indicated social mobility's influence on economic performance is its impact on the matching of people to jobs in society ('matching'). We therefore gathered data on social mobility and matching to investigate this link.

We identified data on social mobility, matching and productivity across a number of countries (dependent on data availability) and then compared how these factors relate to one another. For example, if a country has high social mobility, is this associated with better matching of people to jobs, or with higher levels of productivity?

We also examined what has happened to social mobility in the UK over the last 20 years. For this, we used slightly different measures of social mobility since we needed data over a long period of time for a single country (the UK). More detail and specific references are included in Appendix A1.

1.1 What is social mobility?

The OECD describes social mobility as 'the extent to which individuals move up (or down) the social ladder compared with their parents'.[1] The Sutton Trust defines it as 'how someone's adult outcomes relate to their circumstances as a child'.[2] Given how broad this concept is, it is not surprising that there are many ways to measure social mobility. Having reviewed the literature and the data available, we have identified measures of social mobility that allow us to make comparisons across time or between countries.

Our preferred measure for comparing across countries is based on the gap between the wage of an individual whose father achieved tertiary education and the wage of an individual whose father achieved below upper secondary education.[3] In a country with high social mobility, we would expect this difference to be small, in other words, that it does not appear that the wage potential of an individual is strongly influenced by the educational attainment of their parent. We have this information for 13 OECD countries, based on a 2005 database.

As a sensitivity check, we also looked at an alternative measure of social mobility, also used by the OECD, which is based on the relationship between an individual's income (relative to their peer group) and that of their parent (again, relative to their peer group).

To identify changes in social mobility over time in the UK, we required data across a number of years. We used data from four UK surveys[4] and measures of mobility that can be consistently estimated using data from these four sources.

The Mobility Manifesto, published by the Sutton Trust in 2010,[5] also presented analysis on the economic impact of improvements to social mobility based on analysis by Boston Consulting Group (BCG). This earlier analysis sought to identify the relationship between educational attainment (one of the potential benefits of improved social mobility) and economic success. Our analysis is complementary to this approach, as it draws similar conclusions on the size of the economic benefits, but does this through focusing directly on the broad productivity benefits that should arise from improving social mobility between different generations.

1.2 Matching people to jobs

Our theory is that an increase in social mobility will lead to better matching of people to jobs because social mobility reduces the barriers that might limit the educational and career prospects of highly capable individuals.

We measure matching by comparing the educational requirements of a job to the educational attainment of the employee currently occupying that post.

1.3 Productivity

Economic productivity is a measure of how good an economy is at turning inputs, such as people, into economic output (measured by GDP). Our preferred measure of productivity is output per person (population of a nation). Using a productivity measure based on total population allows us to capture labour force participation as well as working hours, which may both be affected by social mobility.

2. SOCIAL MOBILITY AND ECONOMIC SUCCESS

We take two approaches to identifying the relationship between productivity and social mobility. We look at the relationship between social mobility and productivity across a number of countries with a view to getting a better understanding of how improving social mobility in the UK could potentially support productivity growth. We then look at the individual elements of this relationship: social mobility and better job matching, and then better job matching and productivity.

2.1 Social mobility and productivity

Figure 2.1 illustrates the relationship between social mobility and productivity for a number of OECD countries.[6]

We find a statistically significant relationship between productivity and social mobility.[7] An increase in social mobility in the UK to the level of the next-best-performing country (the Netherlands) could be associated with an increase of approximately 6% in the UK's GDP, equivalent to £1,650 per person or £108bn in total (in 2016 prices).[8] An increase to the western Europe average could be associated with an increase in GDP of approximately 9%, equivalent to £2,620 per person, or £170bn in total (in 2016 prices).

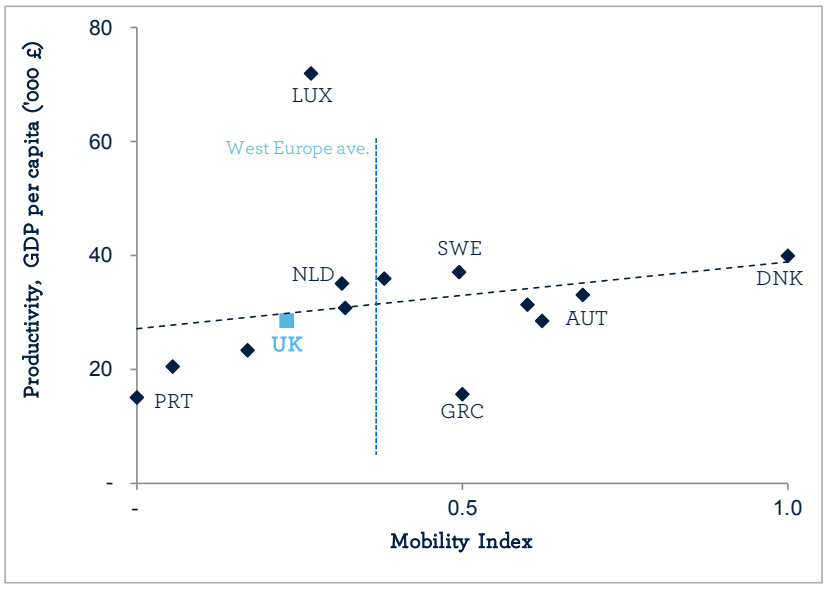

Figure 2.1 The relationship between social mobility and productivity, Source: Oxera analysis.

Note: A full explanation of data sources is provided in Appendix A1. Some data points are labelled for illustrative purposes. Acronyms used are defined in Appendix A2.

This positive relationship is not sensitive to using alternative measures of mobility and productivity. In Figure 2.2, we use an alternative measure of both variables to show this.

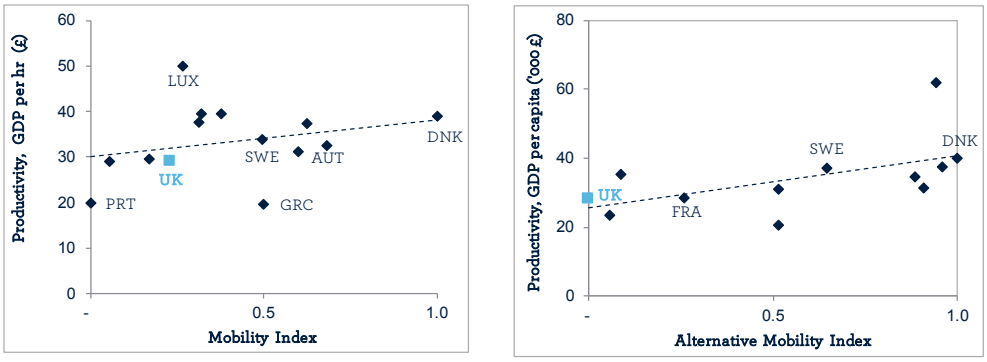

Figure 2.2 The relationship between productivity and mobility, sensitivities, Source: Oxera analysis.

Note: The Alternative Mobility Index captures the relationship between an individual's wage and that of their parents, such that a value of 1 indicates the country with the weakest relationship (see Appendix A1).

2.2 What does this mean for the UK?

Based on this analysis, the productivity gains potentially associated with improved social mobility appear to be significant. However, given that social mobility changes tend to occur slowly, the full impact is likely to accumulate over a long period of time. For example, a policy aimed at increasing the quality of secondary education received by talented but disadvantaged children would only achieve its full impact on productivity when all of the affected children have reached the peak of their careers (30+ years). Table 2.1 summarises our findings.

Change in GDP	Next-best country	Western Europe average
%	6%	9%
£ per person	£1,650	£2,620
£ total	£108bn	£170bn

Table 2.1 Impact of an increase in mobility, Source: Oxera analysis.

These figures are higher than those estimated by BCG for the Sutton Trust in 2010, which were in the region of £56bn and up to £140bn if best-in-class educational attainment were achieved (Finland).[9] This study quantifies the benefits from social mobility solely through the educational impact. More socially mobile countries tend to have better educational outcomes and this study quantifies the value that would arise from achieving those better outcomes.

Our work takes a broader approach to the benefits of social mobility. It includes the productivity enhancement that comes from better education as well as those that come from other sources. We estimate there would be higher benefits even if the UK improved to only the average performance in western Europe, as opposed to best in class.

Section 2.4 looks into the productivity benefits that arise solely through improved matching as a result of better social mobility. These are of a similar magnitude to the educational benefits quantified by BCG.

2.3 Accounting for missing drivers of productivity

There is limited information available to study these important relationships. We recognise that, as presented, the assessment does not adjust for other important drivers of productivity. For example, countries that prioritise policies that increase social mobility may also tend to engage in high levels of research spending (which drives productivity). The two may be caused independently by the same underlying driver, leading us to observe a relationship between social mobility and productivity that is not causal. We sought to address this challenge in two ways.

First, we recalculated our regression, controlling for the amount of investment each country made in research and development (R&D). We found that the relationship between productivity and mobility remained statistically significant.

Second, we repeated the analysis looking only at the relationship between mobility and productivity within 'clusters' of economically and socially similar countries; this would control for systematic differences between, for example, northern and southern European countries. While the sample size did not allow for the use of regression techniques, Figure 2.3 shows that a positive relationship remains between social mobility and productivity within each of the southern, northern and western clusters of European countries.

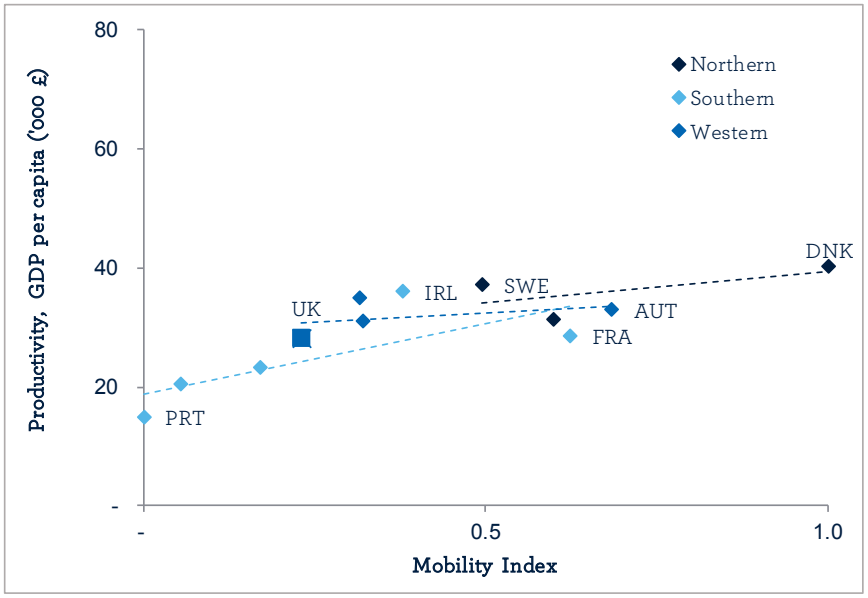

Figure 2.3 Social mobility and productivity, cluster analysis, Source: Oxera analysis

2.4 Improved matching as the driver of social mobility's impact on productivity

In section 2.1, we observed a relationship between social mobility and productivity. We now use our hypothesis about what might be driving this relationship to further explore its origins. In particular, we believe that part of the reason this relationship exists is because social mobility increases the likelihood that people and jobs will be well matched (based on skills, qualifications and experience). As noted, we describe this concept as 'matching'. Better matching of people to jobs means that, on average, people are more productive in their roles and overall productivity in the economy increases. In addition, better matching prospects may increase workforce participation over time, generating further benefits to the economy.

We therefore use an alternative 'two-step' approach for relating productivity to mobility that first looks at how social mobility affects matching and then at how matching affects productivity.

This first-step relationship is plotted in Figure 2.4. We find a statistically significant relationship between matching and social mobility.[10]

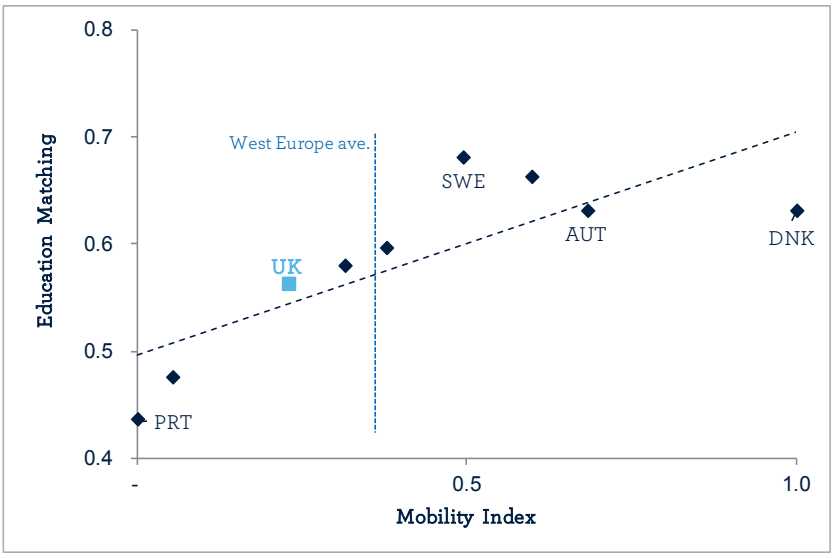

Figure 2.4 The relationship between matching and social mobility, Source: Oxera analysis.

Note: Education matching is the share of people with appropriate qualifications for their jobs.

Again, this relationship is not sensitive to using an alternative measure of mobility or using a set of countries that excludes northern European countries (which tend to have high levels of social mobility and productivity), as shown in Figure 2.5 below.

Figure 2.5 The relationship between matching and mobility, sensitivities, Source: Oxera analysis.

Second, we use findings from existing literature that identify the relationship between matching and productivity. Notably, McGowan and Andrews (2015) use data from the recent OECD Survey of Adult Skills (PIAAC) to evaluate the link between qualification mismatch and labour productivity across 19 OECD countries.[11] The authors find that a 10% increase in qualification matching (a close proxy for the educational matching used in this report) is correlated with a 0.8% increase in GDP per head.

2.5 What does this mean for the UK?

Combining our analysis with the research by McGowan and Andrews indicates that an increase in the UK's social mobility up to the level observed in the next-best-performing country (the Netherlands) could be associated with an increase of approximately 1.3% in GDP, equivalent to £370 per person or £24bn in total (in 2016 prices). Similarly, an increase in social mobility to the western Europe average might be associated with an increase in GDP of 2.1%, equivalent to approximately £590 per person or £39bn in total (in 2016 prices). These results are summarised in Table 2.2.

Change in annual GDP (2016 prices)	Next-best-performing country	Western Europe average
%	1.3%	2.1%
£ per person	£370	£590
£ total	£24bn	£39bn

Table 2.2 Social mobility and productivity (via matching), Source: Oxera analysis.

The relationship between productivity and social mobility identified using the two-step approach is weaker than that identified using the one-step approach. This is likely to be the case for two reasons. On the one hand, the two-step approach tests only one particular link between mobility and productivity—better job matching. Therefore, as it may not capture other ways in which mobility increases productivity, the relationship estimated in Table 2.2 may underestimate the true relationship.[12] On the other hand, the one-step approach gives an overall productivity effect, but, as currently estimated, may capture unrelated omitted variables that may result in an overestimate of the relationship between productivity and mobility, as discussed in section 2.2. The two estimates can therefore be considered as broad upper and lower bounds for the relationship between social mobility and productivity. Hence, in this report, we focus on the latter, more conservative, figures and use the western Europe average to indicate the level of potential improvement in productivity.

These are promising results in relation to the link between social mobility and productivity, showing tangible benefits to economies with more socially mobile populations. However, our work is based on only a small sample of countries at a given point in time. Suggestions for further research and alternative regression approaches that could be used to establish a deeper understanding of this relationship are discussed in section 5.

As noted above, policies designed to increase social mobility have a long lead time. For example, if a policy is introduced to increase equality of access to university education, we would expect to see some of the benefits of this within three or four years, when the first cohort of graduates finds jobs. However, the full potential of this policy materialises over the long term, as successive cohorts join the workforce and replace those retiring who were recruited under the old system. Therefore, productivity changes should be interpreted as changes that would accrue over a long period of time (mirroring the gradual increase in social mobility). Our analysis, based on the cross-country comparison, is, in effect, an equilibrium analysis. It gives an indication of the productivity gains once the social mobility in one country has transitioned to the social mobility level in the chosen comparator.

3. SOCIAL MOBILITY IN THE UK

We also examined data on changes in social mobility over time in the UK to understand the potential for benefits to be achieved.

We measured social mobility by looking at how an individual's relative position in society (measured by income and education) changed in comparison to their parents' position (see Figure 3.1). This gives a view on inter-generational social mobility.

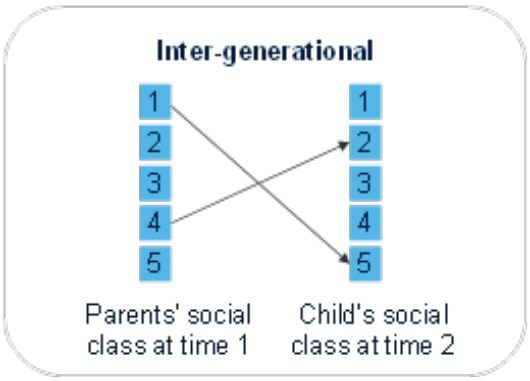

Figure 3.1 Measurement of inter-generational mobility, Source: Oxera.

In a socially immobile society, if a parent was at the top at time 1, we would expect the child to also be at the top at time 2. The opposite would hold for an individual at the bottom. However, in a more mobile society, this is less likely to be the case—parents' position at time 1 will be a less good predictor of an individual's position at time 2. In practice, we measure the strength of the links between parents' and child's positions at two different points in time using a correlation coefficient (a measure of how similar the two observations are).

Measuring mobility in society therefore requires information at a minimum for two different points in time. To assess the changes in mobility in the UK, we used data from four survey datasets:

- British Cohort Study (BCS): provides data on a cohort of children born in 1970 for a number of years, ending in 2012;
- British Household Panel Survey (BHPS): provides data on households annually from 1991 to 2009;
- Longitudinal Study of Young People in England (LSYPE): provides data on young people annually from 2004 to 2010;
- Understanding Society (USoc): provides data on households annually from 2009 to 2014.

To ensure meaningful comparisons over time, we focus on social position parameters that are tracked in all four studies: parent income, parent occupation and child's plans after the age of 16. We examine social mobility by tracking children at each point in these surveys.

3.1 Measuring inter-generational mobility

Social mobility or immobility can be exhibited not only through actual outcomes for an individual but also through their plans, aspirations and expectations about the future. We consider educational aspirations to be important, as educational achievement is a key determinant of an individual's future career opportunities and earnings potential.[13] In a society with low social mobility, children's aspirations are likely to be limited by the lot of their parents. It is this relationship that we looked at by using data on parents' income and occupation and their children's educational plans (i.e. plan after the age of 16).

Figure 3.2 shows the strength of the relationship between parents' income and the child's aspirations (plans after the age of 16) using data from the four surveys. Upward movements imply increases in social mobility over time. The bars on the chart show the 95% confidence intervals, which can be interpreted as indicating that we can be 95% confident that the true value lies within this range. The larger the interval, the more uncertainty there is around the point estimate.

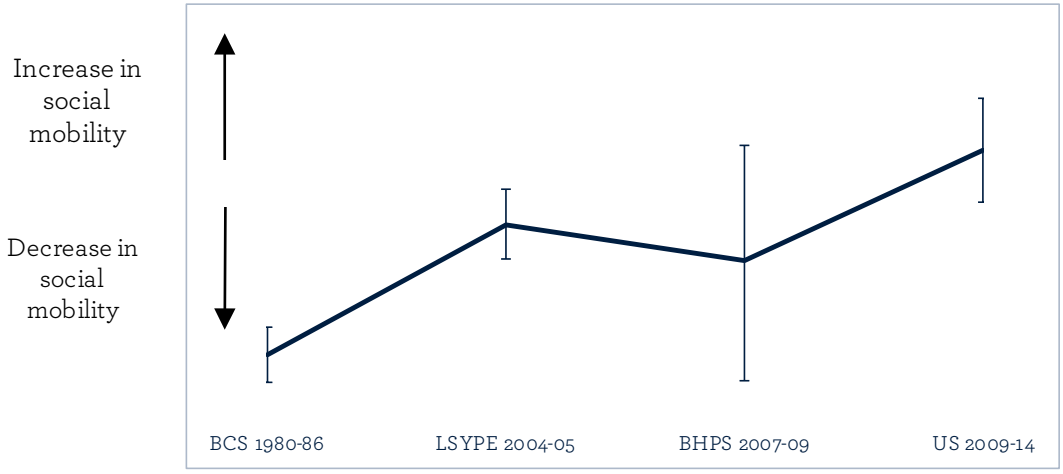

Figure 3.2 Inter-generational mobility relationship between parents' income and child's aspirations (plan after age 16), Source: Oxera analysis based on BCS, BHPS, LSYPE and USoc survey data.

Note: The data points are each a measure of how good a predictor a parent's income is of a child's aspirations. Full details of our methodology are set out in Appendix A1.

This pattern is consistent with Sutton Trust polling, which, since 2003, has shown a steady increase in aspirations towards participation in higher education.[14] Figure 3.3 looks at an alternative measure of inter-generational social mobility, based on the relationship between a parent's occupation and their child's aspirations.

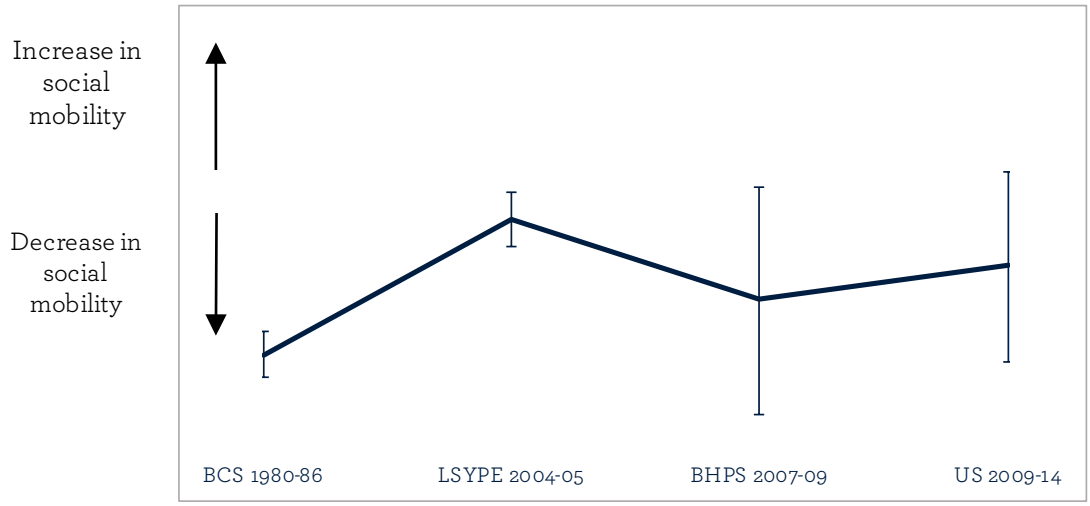

Figure 3.3 Inter-generational mobility—relationship between parents' occupation and child's aspirations (plan after age 16), Source: Oxera analysis based on BCS, BHPS, LSYPE, USoc survey data.

Note formatting: The data points are each a measure of how good a predictor a parents' occupation is of a child's aspirations. Full detail of our methodology is set out in Appendix A1.

The evidence presented in both figures suggest that social mobility increased after the 1980s but improvements in mobility have since been less pronounced, which indicates that there has been no substantial improvement in mobility in recent years. This highlights the substantial room for improvement in social mobility which, if addressed, could result in productivity gains of the magnitude shown in section 2—even a modest improvement in social mobility, to the western European average, could yield significant pay-offs.

4. CONCLUSIONS

The research undertaken for this report examined the relationships between social mobility, 'matching' (of people to jobs) and productivity.

Social mobility should lead to an improvement in the match between people and jobs in society. Greater mobility means reducing the barriers to some jobs—these entry barriers exist because of biases in recruitment processes or inequality of educational opportunity. In a more socially mobile society, it is more likely that a job will be filled by someone with the highest level of potential to perform well in a job, rather than someone who may be less well suited but, for example, better connected. This better matching means the average productivity of a job should increase—on average, employees will be more suited to the job they are doing.

Evidence across a number of countries confirms that those with more social mobility have people matched better to job opportunities and a more productive workforce. It finds that social mobility is positively related to productivity, and in particular that a modest increase in the UK's social mobility, to the average level observed in western Europe, could be associated with an increase in annual GDP of approximately 2% in the long term (enough time for children and young adults affected by policy change to reach the peak of their career). This is equivalent to £590 per person or £39bn to the UK economy as a whole (in 2016 prices). This means that policies that increase social mobility—for example, through increasing equality of access to university education or the quality of primary education—don't just serve equity objectives, they serve economic ones too.

In spite of these benefits, social mobility in the UK appears to have stagnated in recent years, although some progress has been made since the 1980s. This gives a clear opportunity to increase social mobility in the UK, from which we can expect to see economic benefits, not just to the more mobile individuals, but to everyone.

These relationships are complex. Our analysis has found some promising early conclusions in relation to the broad economic benefits of investing in social mobility, but we also highlight a range of further research questions, which we hope other researchers will be encouraged to pursue.

5. FURTHER RESEARCH

There are a number of areas of further research which, if pursued, could greatly improve our understanding of the relationship between productivity and social mobility, and changes in social mobility over time.

5.1 Natural experiments

Analysing a natural experiment that affects social mobility can inform our understanding of the relationship between productivity and social mobility without having to control for variation between countries.
The natural experiment should be an exogenous shock in access to the labour market, unrelated to other drivers of productivity. Potential examples include:

- the end of apartheid in South Africa;
- the increase in female workforce participation during the First and Second World Wars;
- substantial change in education policy (for example, making private education legal/illegal);
- substantial change in the level of nepotism/corruption in the public and/or private sectors.

5.2 Longitudinal survey

Because this study focused on cross-country comparisons, it was constrained by the lack of availability of consistent data on how mobility has changed over time. An alternative approach would be to use a longitudinal survey (asking the same group of people the same questions over time) to conduct a panel analysis of intra-national variations in mobility and productivity over time, looking at local and regional factors in social mobility. This approach is more feasible in countries with significantly decentralised economic and social policy and relatively low internal migration (for example, the USA, Switzerland, and Australia).

To examine social mobility comprehensively and consistently across time and geography, there would be a substantial benefit to an internationally co-ordinated birth cohort longitudinal study. To maximise the potential of such research, international organisations, for example, the OECD or ILO could take a lead role in providing guidance and co-ordination to support individual countries in their studies and ensure that methodologies are as comparable as possible.

To read the full report and appendices, please visit our new website on SuttonTrust.com

Country abbreviations	Country name
AUT	Austria
DNK	Denmark
FRA	France
IRL	Ireland
NLD	Netherlands
PRT	Portugal
SWE	Sweden

SPEAKERS

Naomi Eisenstadt is currently the Independent Advisor on Poverty and Inequality for the Scottish Government. She has recently published her report to the Scottish Government Shifting the Curve, identifying fifteen recommendations that could significantly reduce poverty in Scotland.

After a long career in the NGO sector, in 1999 Naomi became the first Director of the Sure Start Unit. The Unit was responsible for delivering the government's commitment to free nursery education places for all three and four year olds and the national childcare strategy, After Sure Start, Naomi spent 3 years as the Director of the Social Exclusion Task Force.

Since retiring from the Civil Service, Naomi has chaired the Camden Equalities Commission and the Milton Keynes Child Poverty Commission. She is a trustee of four charities: Save the Children, the National Literacy Trust, the Dartington Social Research Unit, and the Trust for London. Naomi is an Honorary Research Fellow at the University of Oxford Department of Education and the Department of Social Policy and Intervention. She was awarded an honorary doctorate from the Open University in 2002 and became a CB in 2005.

Professor Becky Francis is Director of the UCL Institute of Education (IOE). She joined the IOE from King's College London, where she was Professor of Education and Social Justice. Her previous roles include Director of Education at the RSA.

Becky has combined academic research and policy work in education throughout her career. She regularly serves as a consultant to the UK government and international agencies, and previously served as advisor to the UK Parliamentary committee responsible for scrutinising government policy on education.

She has spearheaded longstanding research programmes on the impact of major reforms in the English schools system – in particular, the policy of academisation. She is currently directing the Education Endowment Foundation-funded project 'Best Practice in Grouping Students'.

Becky served as a panel member for the 2014 national Research Excellence Framework exercise. She is a trustee of Impetus-PEF, which supports charities working with disadvantaged young people.

Professor John Goldthorpe was an Official Fellow of Nuffield College, Oxford from 1969 to 2002 and is now an Emeritus Fellow. He is also a Fellow of the British Academy, a Foreign Member of the Royal Swedish Academy of Sciences, and an Honorary Fellow of the Royal Statistical Society. In 2000 was appointed CBE for his services to the advancement of social science.

His books include (with David Lockwood and others) The Affluent Worker, 3 vols., 1968-9; Social Mobility and Class Structure in Modern Britain (1980, second edition, 1987); (with Robert Erikson) The Constant Flux: Class Mobility in Industrial Societies (1992); On Sociology (2000, second, two-volume edition, 2007); and Sociology as a Population Science (2016) He has also published widely in sociological and other social science journals.

His current research, together with Erzsébet Bukodi, is focused on the role of education in social mobility, drawing largely on the unique datasets provided by the series of British birth cohort studies.

Rt Hon Justine Greening MP was appointed Secretary of State for Education and Minister for Women and Equalities on 14 July 2016. She was elected Conservative MP for Putney, Roehampton and Southfields on 5 May 2005.

Justine attended her local comprehensive school in Rotherham, South Yorkshire before going on to study economics at Southampton University. Justine has an MBA from the London Business School.

Justine was a finance manager at Centrica plc before being elected as a Member of Parliament in May 2005. Following her election she was appointed as a Vice Chairman of the Conservative Party, with responsibility for youth.

As well as being a member of the Work and Pensions Select Committee, in 2007 she became a Shadow Treasury Minister and in January 2009 became the Shadow Minister for London.
Justine was Economic Secretary to the Treasury from May 2010 to October 2011 and Secretary of State for Transport from October 2011 to September 2012. She served as Secretary of State for International Development from September 2012 until July 2016.

Helen Jenkins is Managing Partner of Oxera based between its UK and Brussels offices. She has more than 20 years of professional experience in applying economic principles to issues of strategic importance for businesses. She has broad sectoral experience, including in energy, financial services, retailing, communications, media and pharmaceuticals. She is a respected expert in the context of damages assessment and competition disputes, appearing before courts and competition authorities in the USA, UK, Republic of Ireland, South Africa and Hong Kong. Her recent clients include MasterCard

International, Microsoft, National Grid, Virgin Media, Royal Mail, Intercontinental Exchange (ICE), Merck KgaA and Scottish Power.

Helen has been listed in Who's Who Legal since 2001, and is co-author of Economics for Competition Lawyers (Oxford University Press, second edition, 2016). She is also a trustee of the Swarovski Foundation.

Sir Peter Lampl is the founder and chairman of the Sutton Trust and is also the chairman of the Education Endowment Foundation.
Before establishing the Sutton Trust, Peter was the founder and chairman of the Sutton Company, a private equity firm with offices in New York, London and Munich.

Prior to joining the Sutton Company in 1983, Sir Peter worked in several high-profile cities across the world. He worked for four years as a management consultant at The Boston Consulting Group in Boston, Paris and Munich before working in several senior management positions in New York at International Paper.

Sir Peter has been highly recognised for his work with the Trust and in June 2003 was knighted in the Queen's Birthday list. He was also awarded an OBE in 1999 for services to Access to Higher Education.

Stephen Machin is Professor of Economics and Director of the Centre for Economic Performance at the London School of Economics. He is a Fellow of the British Academy, has been President of the European Association of Labour Economists, is a Fellow of the Society of Labor Economists and was a member of the UK Low Pay Commission from 2007-13. His current research interests include inequality, social mobility, education and crime, and the interactions between them.

Dr Lee Elliot Major is Chief Executive of the Sutton Trust. He is also a founding trustee of the Education Endowment Foundation, and chairs its evaluation advisory board. Lee commissioned and co-authored the Sutton Trust-EEF toolkit summarising evidence on what works to improve school attainment for disadvantaged pupils, a resource that has been used by thousands of schools.

He was previously an education journalist, working for the Guardian and Times Higher Education Supplement. He regularly appears in the national press commenting on education issues and writes a regular 'Explainer' column in the Times Educational Supplement. He is currently writing a book on Britain's social mobility problem.

He has been awarded an honorary doctorate from the University of Sheffield for services to education and appointed Honorary Professor at the University of Exeter. He was the first in his family to attend a university.

Emran Mian is Director of Strategy and Social Mobility at the Department for Education. Emran joined the UK civil service in 2002, from an initial background as a lawyer. He has worked in Ministry of Justice, the Department for Business and Cabinet Office. He went on a career break from government in 2013 to run the Social Market Foundation; and then joined DfE in his current role in February 2017.

Ben Page is Chief Executive of Ipsos MORI. He joined MORI in 1987 after graduating from Oxford University in 1986, and was one of the leaders of its first management buyout in 2000. A frequent writer and speaker on trends, leadership and performance management, he has directed hundreds of surveys examining consumer trends and citizen behaviour.

From 1987-1992 Ben worked in our private sector business on corporate reputation and consumer research, working for companies like Shell, BAE Systems, Sky TV and IBM. Since 1992 he has worked closely with both Conservative and Labour ministers and senior policy makers across government, leading on work for Downing Street, the Cabinet Office, the Home Office and the Department of Health, as well as a wide range of local authorities and NHS Trusts.

He became Chief Executive of Ipsos in the UK and Ireland in 2009. Ben is a fellow of the Academy of Social Sciences and serves on advisory groups at the Kings Fund, Institute of Public Policy Research (IPPR) and the Social Market Foundation (SMF), and is a Trustee at the Centre for London. He is also a commissioner on the Resolution Foundation's Intergenerational Commission. He was named in GQ's 100 Most Connected Men of 2015. He regularly appears on national TV and radio programmes.

Conor Ryan leads the Trust's communications, policy and research work. Conor was senior education adviser to Prime Minister Tony Blair from 2005-2007 and was David Blunkett's special adviser from 1993-2001. Conor is a trustee of NFER and a director of a multi-academy trust. In 2015-16, he was a member of the Scottish Commission on Widening Access. He has written extensively for national newspapers including the Guardian, Independent, Sunday Times, Daily Mail and TES and is the author of several books on education.

Professor Selina Todd is a writer and Professor of Modern History at Oxford University. She writes about class, inequality, working-class history, feminism and women's lives.

Her bestseller, The People: The Rise and Fall of the Working Class, 1910-2010, is now out in paperback. One of Caitlin Moran's Cultural Highlights, and a Book of the Year for David Kynaston, The People is based on the voices of working-class people themselves. It busts some of

the myths that politicians peddle about the past: that everything was alright in the age of the grammar school; that working-class people in the past were 'deserving' of help, but aren't any longer; that women 'traditionally' stayed at home and didn't work; that if people just accepted their place everything would be ok. The history is one of anger, defiance and sometimes of despair – but ultimately of hope for a better future.

She is currently writing a history of social mobility in Britain since 1900 and a study of the playwright Shelagh Delaney.

Claire Tyler is a Liberal Democrat life peer in the House of Lords where she sits as Baroness Tyler of Enfield.

After graduating in law and politics from Southampton University, Claire joined the Greater London Council/Inner London Education Authority in 1978. In 1988 Claire joined the Civil Service where she worked until 2007 including four years as the Head of the Government's Social Exclusion Unit. From 2007 to 2012 Claire was the Chief Executive of the charity Relate.

Claire took up post as Chair of CAFCASS (Children and Family Court Advisory and Support Service) in February 2012. She also became President of the National Children's Bureau and Vice President of Relate in 2012.

In 2015 Claire was made Liberal Democrat Mental Health Spokesperson and in addition to her frontbench role, she is Chair of the Lords Select Committee on Financial Exclusion. Claire is also Co- chair of the APPG on Wellbeing Economics. Outside of Parliament Claire is Chair of the Make Every Adult Matter Coalition of Charities helping adults with multiple needs.

Anna Vignoles is Professor of Education and Director of Research at the Faculty of Education, University of Cambridge and a trustee of the Nuffield Foundation. Anna has extensive experience of using large scale administrative data to study factors relating to pupil achievement and students' outcomes from education. She has published widely on widening participation into higher education and on the socio-economic gap in pupil achievement. Her research interests include issues pertaining to equity in education, school choice, school efficiency and finance, higher education and the economic value of schooling. Anna has advised numerous government departments, including the Department for Education.

Ian Walsh joined The Boston Consulting Group in 1999. He leads the retail banking area globally and the Financial Institutions practice locally in the UK. He also leads the firm's customer-service operations topic. He is a member of the global leadership teams in BCG's Financial Institutions and Operations practices.

Ian has considerable experience in retail and commercial banking, asset management, wealth

management, and insurance. His project experience covers organization design, operational effectiveness, distribution strategy, proposition design, financial performance, and corporate strategy. He has worked on more than 100 projects in multiple industries across the UK, US, Canada, Australia, Europe, and Asia.

Ian co-led BCG's pro bono support of the London Olympics in 2012. He is a board member of the Sutton Trust and an advisory board member of the Education Endowment Foundation. He has also been selected as a Young Global Leader at the World Economic Forum.

Sir Michael Wilkins is the Founding CEO of Outwood Grange Academies Trust, one of the highest performing academy trusts in the country.

In January 2001 he became headteacher of Outwood Grange, a large 2000+ school in the north of England. Under his leadership, the school became one of the highest performing academies in the country; achieving Ofsted Outstanding on the last two inspections.

He was appointed as one of the first NLEs in 2006. Outwood Grange Academies Trust currently comprises 18 secondary schools and 5 primary schools, as well as the Outwood Institute of Education which delivers CPD to schools within the Trust and beyond.

In 2010 Sir Michael was presented with the award for 'Outstanding System Leadership' and, in 2014, had the honour of knighthood bestowed upon him for his services to education. Sir Michael retired as CEO of OGAT in September 2016 but continues in a leadership role.

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