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Longitudinal Study of Young People in England cohort 2: health and wellbeing at wave 2

Research report

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Executive Summary

The year 10 students who took part in the Longitudinal Study of Young People in England (LSYPE2) in 2014 have been growing up in a rapidly changing environment. The previous cohort of year 10 students, who were interviewed in 2005, lived in a world in which the UK economy had seen 13 years of uninterrupted growth in GDP, and social media and the fast and constantly connected mobile devices that many now take for granted had not yet been fully integrated into young people's lives. As such, it is perhaps unsurprising that the attitudes and behaviours of year 10 students in 2014 were markedly different to those in 2005.

The findings from LSYPE2 are complex and would merit further investigation. However, two fundamental themes emerged from our analyses:

- Year 10 students in 2014 were **markedly more 'work focused'** than their counterparts in 2005
- There were signs that the **mental wellbeing of year 10 students – particularly that of girls – had worsened** and that young people felt less control over their own destinies

The theme of the 'seriousness' of the current cohort of young people was already apparent in year 9 and has been covered in earlier reporting on LSYPE2 (Baker et al. 2014).¹ However, it is clear that this trait has continued into year 10 and, in many cases, the differences have become even more pronounced.

The overall attitude of year 10 students towards school (derived from an array of attitudinal statements) became more positive between 2005 and 2014, while the incidence of truancy fell substantially (from 23% to 13%). At the same time, the number of young people expecting to study A levels increased from 59% in 2005 to 65% in 2014. Indeed, educational aspirations also strengthened in terms of post-school ambitions - in spite of the intervening increase in tuition fees, the proportion of young people expecting to apply to university increased from 60% in 2005 to 71% in 2014. There was similarly positive news in terms of engagement in risky behaviours – young people in 2014 were far less likely to drink alcohol, smoke cigarettes or cannabis, engage in graffiti or shoplifting, or to commit vandalism.

However, there remained **a marked social gradient** on most of the issues mentioned, with year 10 students from disadvantaged backgrounds faring less well than those with a more privileged home life when it comes to risky behaviours and educational experiences

¹ See: <https://www.gov.uk/government/publications/longitudinal-study-of-young-people-in-england-cohort-2-wave-1>

and aspirations. Young people with special educational needs (SEN) and illnesses or disabilities affecting their schooling also faced significant challenges and fared worse than other young people on most of these measures.

Moving on to the second theme – the general psychological wellbeing of young people in year 10 – the news was less positive. Overall, levels of psychological distress had increased slightly between 2005 and 2014 and this increase was driven by a more significant increase in psychological distress amongst girls. Young people in single parent and step families and those with a long-standing illness or disability that affects their school work also tended to fare less well.

A potentially important finding was that **young people from relatively advantaged backgrounds were actually slightly more likely to exhibit psychological distress than those from less advantaged families**. In particular, high parental education correlated with a higher incidence of psychological distress. While the differences were not large, and other studies have shown the opposite relationship when it comes to more severe levels of psychological distress (particularly where this takes account of behavioural as well as emotional factors), this finding highlights the dangers of assuming that a given young person will be ‘fine’ just because they come from a more advantaged or well-educated family – mental health issues can affect people from all backgrounds.

Thinking more specifically about mental wellbeing, **young people were more likely to strongly equate hard work with success** (believing in the value of working hard at school or more generally in order to succeed) young people in 2014 also had a **lower ‘locus of control’** (the extent to which they believe they can control events affecting them). This perceived lack of control over outcomes was most pronounced among girls, young people in single parent and reconstituted families, and those with a long-standing illness or disability that affected school. The lower locus of control might seem understandable bearing in mind the challenging economic environment in which they have been growing up. What seems particularly concerning is that there has been a rapid growth in the number of young people strongly equating hard work with success, but also with a low locus of control – there are more young people who believe in the value of hard work but at the same time, don’t believe they will be able to influence their own outcomes. Furthermore, this group has a high level of psychological distress relative to other groups (though those with both a low locus of control and least likely to equate hard work with success fared the worst).

In terms of the policy implications of these findings, it would appear that there is little in the way of low hanging fruit - simple, low-cost initiatives are difficult to identify.

In the context of attitudes towards school, educational aspirations and risky behaviours, further efforts will be required if the inequalities between young people of privileged and deprived backgrounds are to be evened out. The school experiences of young people with SEN also remain an issue that should not be forgotten.

The policy implications of the mental wellbeing of young people are also challenging to unpick. It may be the case that some of the increases in psychological distress that we have seen will be self-correcting if the economy continues to grow and the employment prospects of this cohort of young people improve accordingly. However, there may be other underlying factors, arising from broader societal changes, which will continue to raise psychological distress levels.

There are undoubtedly groups that are more likely to experience severe levels of psychological distress and the value of efforts to target these should not be discounted. However, **broad-spectrum initiatives aimed at all young people would also be potentially valuable.**

The mediator analysis suggested that there were no obvious explanations for the higher levels of distress seen amongst young people from households with high levels of parental qualification, although one thing that was observed was that having **supportive peers** (i.e. those that are academically motivated and help rather than hinder in relation to school work) mitigates the gradient in relation to parental qualifications. This underlines the challenges of addressing mental health issues. However, it should be noted that these investigations were limited by the content of the LSYPE2 questionnaire. Further investigation of this topic, and replication using other data sets, would be beneficial in the long term.

It may be the case that the increasingly large group of young people most likely to strongly equate hard work with success but with low locus of control will naturally move into a more positive mind-set if the job market for young people continues to improve. This is an area to monitor as our cohort grows older. Beyond that, the tone of commentary on young people in the media may also have a role to play in terms of their belief in their personal worth and their future prospects. In recent years, a caricature that has sometimes been presented is of young people on a downward trajectory in terms of behaviour. This has been supported by commentary on a culture of binge-drinking, drug-taking and laziness, with the implication that young people's success stems from easier examinations rather than hard work. This seems unreasonable in the face of evidence to the contrary presented in this report. Indeed, there may be benefits to young people, and to society as a whole, if there was more prominent coverage of the narrative described by the LSYPE data which show how relatively 'serious' young people were in 2014.

holistic view of the whole child and how other aspects of their life impact on education.

- **Multiple data sources:** data is collected from not only the young person but also their parents which allows us to link information about parental background and socio-economic status as well as parental views on their children's lives to the data from the young people. Consent was also collected from young people and their parents in order to allow the Department for Education to link data recorded about them on the National Pupil Database (NPD) with their survey data, greatly enhancing the richness of the data. Of particular value here will be GCSE attainment data which will be linked to the data for wave 3 onwards.
- **Comparability with the previous cohort:** the study was designed to be as comparable as possible to the first LSYPE, in terms of methodology but also to some extent question coverage. While in the last 9 years new issues have emerged for young people, many of the topics covered in the first cohort are still relevant today, and therefore questions have been kept as similar as possible in order to retain comparability. This allows us to see how things have changed for this generation between cohorts.
- **Longitudinal analysis:** in addition to cross-cohort comparisons, the longitudinal nature of the survey brings unique possibilities in terms of analysis. This will be particularly valuable from wave 3 onwards, when attainment data combined with three years of data will be available as this will allow longitudinal trends and potentially their impacts on attainment to become visible.

Survey background

Much of the data we reference throughout this report stems from the year 10 interviews that were conducted with young people in the first and the second LSYPE cohorts. The year 10 interviews in the first cohort took place in 2005, while those in the second cohort were conducted in 2014. As such, we are reporting on a time during which there have been rapid and substantial changes to the lives of young people. Not only have there been significant new policy approaches in the spheres of education and wellbeing, which are key areas of interest for this report, but there have also been marked shifts in the wider environment in which young people are growing up. Throughout this report we have tried to highlight instances where these changes are likely to have been drivers of our findings. However, with so many external variables at play, it is not possible to make concrete assumptions about the causes of some of the changes that we have observed. This being the case, in the following sections we have provided an overview of several of the major changes that have taken place over this time - these should be borne in mind when considering the report findings.

We also provide a brief summary of some of the key changes faced by young people as they enter year 10. This is an important year in their schooling which, in itself, represents a period of flux in their lives.

Policy initiatives

Between 2005 and 2014, there have been many important policy developments in terms of education and wellbeing. Due to the depth and breadth of these changes, we will focus only on some of those which seem most pertinent to our areas of investigation in this report.

These policy developments include:

- The expansion of academy schools and introduction of free schools
- Raising the participation age to ensure young people remain in education or training for longer
- A greater focus on vocational qualifications and apprenticeships
- Changes to GCSEs and A levels
- Significant increases in university tuition fees
- The National Wellbeing Programme

The **number of academy schools has increased dramatically** in recent years, with the most rapid change occurring between April 2011 and April 2014, when the number of academies grew from 465 to 4,010 (of which 200 were free schools).³ This change means that more young people in 2014 were in an environment where they did not necessarily follow the full national curriculum and were more likely to be in a school that focused on a specific area of expertise. We highlight some differences according to school type throughout the main body of the report. However, this is a large and potentially important topic that would merit further investigation in future years, when more longitudinal data are available.

Another major change for young people between 2005 and 2014 has been the **increase in the participation age**. In 2005, young people were able to leave the education and training system entirely at the age of 16. However, the cohort of young people who were in year 10 in 2014 will be required to stay in education or training until the age of 18, with

³ Data sourced from Impact indicators 23, 24, 25: number of academies and free schools as a percentage of the total state-funded mainstream schools, March 2015 update:

<https://www.gov.uk/government/publications/number-of-academies-and-free-schools#history>

a view to boosting skills and reducing the number of young people not in education, employment or training (NEET). There has also been an increasing emphasis on the validity of apprenticeships as an alternative to non-vocational qualifications, with the number of apprenticeship starts in England increasing from 189,000 in the 2004/5 academic year to 440,400 in 2013/14, though the rate of increase amongst those aged 18 or younger has, thus far, been less rapid (rising from 113,520 in 2004/5 to 119,760 in 2013/14).⁴ As such, year 10 students in 2014 have been growing up in an environment in which they are expected to remain in education for longer and to achieve a higher final level of qualification than was the case for those in 2005.

For many year 10 students, the decision as to whether or not to follow a vocational path will not yet be set in stone (though some will already be studying for NVQs rather than GCSEs). However, the increase in the participation age will undoubtedly have had an impact on some of them. In particular, those who would otherwise have chosen to leave the education or training system entirely will face a very different path through their late-teen years. This is likely to have impacted on the way that they approach life in year 10. We touch on this issue in chapter 2, but it will be of continuing interest as the young people turn 17 or 18.

There have been significant changes to GCSE and A level syllabuses between 2005 and 2014, though perhaps the most significant development (from the perspective of year 10 students) was **the move from modular to linear GCSEs** in 2012. In basic terms, this change meant that there is now a greater focus on assessments at the end of the GCSE courses and less scope for re-sitting examinations in year 11. Intuitively one might expect this to reduce stress levels in year 10 and potentially to increase them in year 11 – as such, it will be worth continuing to observe future trends in the LSYPE2 data.

Looking to later life stages, the **increase in the cap on tuition fees** that universities are permitted to charge is another potentially significant factor in the plans of year 10 students. In 2005 the maximum permissible tuition fee was £3,000 per year and by 2014 this had risen to £9,000. As discussed in chapter 2, this does not appear to have had the negative impact on aspirations to attend university that might have been expected, though the challenging recent climate for the employment of young people is likely to have somewhat mitigated the dampening effect that tuition fee rises may otherwise have had.

As well as all of these educational policy developments, there has also been an increasing **policy focus on mental health and wellbeing**, both amongst young people and the wider adult population. This is reflected in a recent apparent shift in the volume

⁴ Data sourced from FE data library: apprenticeships, November 2015 update:
<https://www.gov.uk/government/statistical-data-sets/fe-data-library-apprenticeships>

and the tone of media coverage of mental health issues and the open discussion of techniques such as Mindfulness (though this is a difficult phenomenon to quantify and one that is still evolving).

Perhaps the clearest sign of this government interest in wellbeing is **The National Wellbeing Programme** which was established by the coalition government in 2010. The aim of this initiative was to enable government to more effectively understand the quality of life of people in the UK and to signal a shift away from focusing so heavily on financial metrics such as GDP as the defining measure of success.⁵ The National Wellbeing programme builds on earlier (and still ongoing) work by the Children's Society and the University of York, which is published in their annual Good Childhood Reports⁶. It also draws upon the work of other high profile longitudinal surveys such as the British Household Panel Survey, the Understanding Society survey, and the Millennium Cohort Study.

The wellbeing of children, in particular, is a key concern. The government has made efforts to improve the way in which mental health issues are addressed in schools, including providing a blueprint for improving the counselling services available to young people, lesson plans for teaching about mental health and funding guidance, and drawing upon the expertise of voluntary sector providers. There have also been initiatives such as the recent identification of a mental health champion for schools by DfE.

These efforts are at least partly driven by the body of evidence which shows the impact that the health and wellbeing of young people can have on their education outcomes. Indeed, Public Health England has provided briefings for head teachers and governors on this issue, highlighting the cross-departmental appreciation of its importance.⁷

Outside school-specific initiatives, the establishment of the Crisis Care Concordat, which was developed with input from Mind, has helped to improve interactions between the police and those with mental health issues, substantially reducing the use of police cells for people detained under the Mental Health Act.⁸

In spite of such positive policy developments, there are nevertheless strains on the mental health system, with squeezes on funding in some areas and challenges in providing the number of beds required for those with acute needs.⁹ There are also signs that **wellbeing is a particular issue in England**, with the Children's Worlds survey

⁵ See: <http://www.ons.gov.uk/ons/guide-method/user-guidance/well-being/about-the-programme/index.html>

⁶ See: <https://www.childrenssociety.org.uk/sites/default/files/TheGoodChildhoodReport2015.pdf>

⁷ See: <https://www.gov.uk/government/publications/the-link-between-pupil-health-and-wellbeing-and-attainment>

⁸ See: <https://www.gov.uk/government/news/use-of-police-cells-for-those-in-mental-health-crisis-halved>

⁹ See: http://www.kingsfund.org.uk/sites/files/kf/field/field_publication_file/mental-health-under-pressure-nov15_0.pdf

showing that England came 14th of the 15 surveyed countries in terms of life satisfaction and performed below average for a wide range of wellbeing metrics such as happiness and optimism for the future.¹⁰ As such, mental health and wellbeing remains a priority area for the government and further programmes of research are underway with a view to informing future policy making.

Broader societal changes

Beyond the policy initiatives outlined, the world with which young people are faced changed very substantially between 2005 and 2014.

The effects of the **global financial crisis**, which resulted in five quarters of recession in the UK between 2008 and 2009, had a dramatic impact on the job prospects of young people. In the quarter ending July 2005 (corresponding to the year 10 cohort 1 fieldwork period), the unemployment rate for 18-24 year olds stood at 10.7%.¹¹ By November 2011 this had risen to 20.3%, which was more than double the unemployment rate for 25-34 year olds at that time (8.3%).

This situation had improved by the quarter ending July 2014 (the point at which the year 10 cohort 2 interviews took place), when the unemployment rate for 18-24 year olds had fallen back to 14.5%.¹² However, while the labour market is undoubtedly now looking a lot more positive for young people, it is highly likely that the spike in unemployment levels and the extensive media coverage that accompanied it would have impacted on the behaviours and mind-set of at least some of the young people in cohort 2, either directly or via changes in parental behaviours. In particular we reference this as a potential contributing factor in our discussion of risky behaviours (see chapter 3) and aspirations to attend university (see chapter 2).

Another of the major challenges facing young people, and which may similarly be influencing their attitudes and behaviours, is the rapid **rise in house prices**. While young people in year 10 are likely to be less aware of the specifics of the housing market than many adults are, the heavy media coverage of housing issues is likely to have filtered through to at least some of them (and therefore to have added to the overall sense that their generation is, for the time being at least, facing some significant challenges). Between July 2005 and July 2014, house prices in England rose by 34.4% while prices in

¹⁰ A summary of the English data in an international context can be found in the Children's Society's Good Childhood Report 2015:

<https://www.childrensociety.org.uk/sites/default/files/TheGoodChildhoodReport2015.pdf>

¹¹ All data on unemployment rates have been sourced from the November 2015 Labour Market Statistics Release from the ONS, using seasonally adjusted data for the UK:

<http://www.ons.gov.uk/ons/rel/lms/labour-market-statistics/november-2015/index.html>

¹² The unemployment rate for 18-24 year olds has also continued to fall since the wave 2 cohort 2 fieldwork period and stood at 12.7% in the quarter to September 2015.

London saw an increase of 79.6%.¹³ This compares to a CPI inflation rate of 27.7% over the same period. While the increase in absolute cost is mitigated to some extent by lower mortgage interest rates, there are clearly issues around the size of deposit that is now required from first time buyers in many areas (particularly as lenders are now placing more rigorous restrictions on deposit size than was the case prior to the financial crash).¹⁴ As such, it would again be understandable if there had been a shift in attitudes towards the importance of school, involvement in risky behaviours and aspirations for the future (see chapters 2 and 3). We have also looked at the extent to which young people feel that they have control over their own outcomes and how this impacts on their wellbeing (see chapter 3).

The **advent of the social media age** and the increasing ubiquity of cameras and video cameras on smartphones is another major change in the lives of young people since 2005. As the activities of young people are increasingly photographed, recorded and commented upon, leaving a semi-permanent record for posterity, there is an obvious question as to how this might impact on their involvement in risky behaviours and in their wider attitudes. However, such is the rate of change in the social media sector that there are already early signs that usage of previously dominant sites such as Facebook is now waning amongst young people, while sites offering a higher degree of privacy (such as Snapchat, Path and Everyme) are becoming more popular.¹⁵ As such, it will be interesting to see whether the patterns of behaviour we observe in chapter 3 may modify in later years. This is another topic that may provide further analysis opportunities in future years of LSYPE2.

It should also be remembered that smartphones did not have any real presence in 2005 (the iPhone, which drove uptake of the category, was not released until 2007).

Smartphone ownership is higher amongst 16-24 year olds than for any other age group in the UK (90% in 2015) and while reliable figures for year 10 students are not readily available, it would seem reasonable to assume that ownership levels for this group would also be high.¹⁶ In 2005 young people in year 10 could effectively only access the internet or email via desktop or laptop computers and there was little in the way of what might be considered social media. By 2014 the world had changed to the point where, via their

¹³ Data sourced from the ONS House Price Index, September 2015 release:

<http://www.ons.gov.uk/ons/rel/hpi/house-price-index/september-2015/stb-hpi-september-2015.html#tab-Data-tables>

¹⁴ Data sourced from the ONS Consumer Price Inflation report, November 2015 release:

<http://ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-323661>

¹⁵ Sourced from the Digital Engagement Blog from the Government Digital Service, Discussion with Paul Armstrong of @Here_Forth, January 2015:

<https://gdsengagement.blog.gov.uk/2015/01/14/social-media-trends-2015/>

¹⁶ Data sourced from The Communications Market Report published by Ofcom in August 2015:

http://stakeholders.ofcom.org.uk/binaries/research/cmr/cmr15/CMR_UK_2015.pdf

telephones, many young people in year 10 had immediate access to vast repositories of information and entertainment (not to mention their networks of friends) throughout their waking hours. There is much interest in the impact that this is having on young people and whether the benefits of social networks and connectedness outweigh any negatives. The evidence base on this topic is still growing, but organisations such as the Strategic Society Centre and the University of Essex have flagged research suggesting that there are negative associations between the use of screen-based media (TV, computers and smartphones) and happiness.¹⁷ There has also been speculation about the extent to which smartphone ownership has impacted negatively on the sleep patterns of young people - this is a new topic for LSYPE2 this year, which we discuss further in chapter 3.

The rise of smartphone ownership and social networking also throws up a whole range of questions for young people in terms of their developing **sexuality**, many of which are issues that are new (or more pronounced) for this generation. At what point, if ever, is 'sexting' appropriate? Are relationships established via platforms such as Tinder less likely to foster positive outcomes than those stemming from more traditional mechanisms? To what extent should online pornography inform real world relationships? These are topics about which the survey does not currently collect detailed information, but which may be investigated further as the LSYPE2 cohort approaches adulthood. Nevertheless, they are an important factor in the lives of year 10 students and may well impact on some of the changes we see between 2005 and 2014.

Starting year 10

As well as the changes arising from policy developments and broader societal changes, the move into year 10 brings with it a further change in young peoples' lives, albeit one which is essentially common to the young people interviewed in both 2005 and 2014.

The start of year 10 marks the point at which young people typically **start their GCSE or NVQ courses as part of Key Stage 4**. As such, in many cases young people will have begun the process of focussing on specific subjects that will inform their later careers or, at least, which they may wish to take forward to later stages of their education. It also represents the point at which they are actively working towards the qualifications that will influence their future job prospects. While every year of schooling is important, year 10 undoubtedly marks a point at which life draws further into focus.

¹⁷ G. Cameron and J. Lloyd, *Screened Out*, London, 2015:

<http://strategicsociety.org.uk/screened-out-meeting-the-challenge-of-technology-and-young-peoples-wellbeing/#.VI2pD9LhDIU>

Structure of the report

The main body of this research report can be found in chapters 2 to 4. Chapter 2 presents findings about life in year 10 and wellbeing within the school context, chapter 3 focuses on wider health and wellbeing, in the context of the government's focus on the whole child, and chapter 4 takes one of the measures from chapter 3 (psychological distress) and explores this in more detail, by looking at what might be explaining the trends we are seeing in this area. At the end of the core content, annexes are provided for further information.

Chapters 2 and 3 contain selected descriptive analyses on each of the topics with a specific focus on particular measures which we discuss in more detail at the beginning of each of the chapters. The analysis does not aim to be exhaustive in terms of the subject matter or depth of analysis. For example, many of the measures discussed in chapter 2 were analysed in the wave 1 research report and therefore our analysis here attempts to summarise where trends observed at wave 1 differ or continue at wave 2, in the context of moving forward our understanding of wellbeing. In chapter 3 we introduce some new measures but the analysis is inevitably limited, showing the potential for further analysis rather than providing an exhaustive account. These chapters do not contain multivariate analyses of the complex relationships between variables which control for other influences. Chapter 4 explores aspects of the health and wellbeing of young people in more depth, and provides additional insights, while introducing more complex analysis.

The main focus of this research report is the second wave of LSYPE2 data, which examines activities and experiences during the 2013/14 academic year, at the start of which respondents were aged 14. The actual age of respondents at the time of interview will have been either 14 or 15, reflective of the fact that the birthdays of the young people fall throughout the academic year.

Whilst this publication is largely focused on wave 2 of LSYPE2, responses from those interviewed during the first LSYPE (LSYPE 'cohort' 1) are also used in some analysis, so that characteristics and observations from wave 2 of LSYPE2 can be compared to the same characteristics and observations from wave 2 of LSYPE1. As mentioned earlier the ability to make such comparisons is one of the key strengths of these longitudinal data.

A summary of the ages and timings at different stages of the two LSYPE cohorts can be seen in table 1.1.

Table 1.1 Age and timing of the LSYPE cohorts

Wave	School year	Academic year (LSYPE2)	Academic age (years)	Actual age (years)	LSYPE1 interview (year)	LSYPE2 interview (year)
Wave 1	Year 9	2012/13	13	13/14	2004	2013
Wave 2	Year 10	2013/14	14	14/15	2005	2014
Wave 3	Year 11	2014/15	15	15/16	2006	2015
Wave 4	Post-compulsory (year 12)	2015/16	16	16/17	2007	2016
Wave 5	Post-compulsory (year 13)	2016/17	17	17/18	2008	2017
Wave 6	Post-compulsory (potentially 1 st year HE or gap year)	2017/18	18	18/19	2009	2018
Wave 7	Post-compulsory (potentially 2 nd year of HE)	2018/19	19	19/20	2010	2019

Source: Longitudinal Study of Young People in England: cohorts 1 and 2.

This report includes a number of common breakdowns when examining wave 2 (year 10) data from LSYPE2. These include characteristics such as whether the young person has SEN and the working status of their parents. Further details for some of these breakdowns can be found in annex B, together with an explanation of what has been meant by ‘parent’ throughout the report. A glossary of any abbreviations used in this report can be found in annex E.

In addition, where relevant this report includes some comparisons between LSYPE2 wave 1 (year 9) and wave 2 (year 10) data. This is not based on sophisticated statistical techniques but rather focuses on more straightforward comparisons of the overall population at wave 1 and wave 2.

All figures presented in this report are subject to sampling error arising from LSYPE only interviewing a subset of the population of interest. This uncertainty can be displayed in the form of confidence intervals illustrating the accuracy of each figure; in some cases these have been displayed in the form of error bars in figures.

Throughout the report, wherever we highlight changes over time or differences between specific groups, these changes are statistically significant unless otherwise stated.¹⁸ However, as LSYPE is a robust survey with a large sample size, even small changes can be statistically significant. As such, we have focused on differences which are highly significant (as indicated by their p-value) and/or represent general trends seen throughout our analysis (particularly given the risk that some 'statistically significant' results may occur by chance alone)..

Methodology

It is intended that LSYPE2 will track a sample of 13,100 young people in England from the age of 13/14 annually for seven years, through to the age of 19/20.

The young people in LSYPE2 were sampled through a two-stage sampling process. First schools were sampled, followed by pupils within those schools. The sample includes young people in local authority (LA) maintained schools, academies and independent schools, but for practical reasons excludes small schools and overseas students. It includes special schools as well as mainstream provision. This sample was designed to ensure the widest feasible perspective on young people's experiences.

Interviews were conducted in respondents' homes. At wave 1, in 2013, we interviewed the young person as well as up to two parents (where two parents lived in the same household as the young person). At wave 2, in 2014, the young person and a nominated main parent¹⁹ were interviewed. Interviews for both waves took place between April and September.

At wave 2 the same young people that responded at wave 1 were interviewed for a second time. Households where at least one interview had taken place at wave 1 were reissued for wave 2. A response rate of 71.6% was achieved at wave 1 and 85.5% at wave 2, equating to a total achieved sample size of 11,166 at wave 2.

The methodology for LSYPE2 was designed to be as similar as possible to LSYPE1, in order to allow for comparability across cohorts.

Further information on the sample and survey design can be found in the technical reports released alongside the data via the UK Data Service.

¹⁸ All such data are statistically significant at $p < .05$

¹⁹ The main parent was nominated by a parent or guardian in the household before the interview, and was the parent/guardian most involved with the young person's education

Characteristics of the young people in the sample

The following section provides a brief overview of the young people in LSYPE2 and shows the proportion of young people who took part in the first interview who were still participating at the second wave. This gives an indication of any features of non-response. Some of these characteristics were compensated for through the weighting schema which are described in detail in the technical report documents accessible via the UK Data Service, and briefly described in annex A. Here, we concentrate on the characteristics that we examine further during the report and do not describe variables such as religion, income and English as a first language which were described in the year 9 report which preceded this one (Baker et al, 2014). Note that the bases of the following tables do not always equal the total achieved sample size. This is due to missing data for a particular characteristic, for example due to item non-response (a respondent refusing to answer individual questions or not knowing the answers), or due to missing information among some variables which have been matched from the NPD.²⁰

²⁰ Where such data is missing this is either because the respondents have not given consent for the data to be matched, because we did not have sufficient information to match them, or because the data itself is missing from the NPD.

Table 1.2 Gender, ethnic group, illness or disability and SEN

	Number (weighted)	Per cent
Gender		
Male	5,811	52
Female	5,355	48
Base (weighted)	11,166	
Ethnic group		
White	8,880	81
Mixed	422	4
Indian	282	3
Pakistani	366	3
Bangladeshi	146	1
African	340	3
Caribbean	156	1
Other	362	3
Base (weighted)	10,955	
Illness or disability		
No illness or disability	9,241	84
Illness or disability does not affect school	846	8
Illness or disability affects school	880	8
Base (weighted)	10,967	
SEN		
No SEN	7791	79
SEN	2026	21
Base (weighted)	9816	

As shown in table 1.2, there were a slightly higher proportion of boys in the sample than girls (52% and 48% respectively). Eighty-one per cent were white, 4% from mixed ethnic groups and 3% from each of the Indian, Pakistani, Black African and 'other' ethnic groups. The 'other' ethnic group largely consisted of other Asian and Arab young people. One per cent was from the Black Caribbean group.²¹

²¹ Ethnicity was as reported by the young person

Fifteen per cent of the young people interviewed had a long-standing illness, disability or infirmity as reported by their parents, of which slightly over half (8% of the total) had an illness or disability that affected their schooling (either their ability to go to school regularly or their school work). Parents and young people were asked for consent to link their survey responses to the NPD to allow wider contextual data about the young person to supplement their responses. Of those with linked data, 21% had SEN.²²

Household characteristics

Table 1.3 Household composition and tenure

	Number (weighted)	Per cent
Household composition		
Two parent family	6,825	61
Step family	1,019	9
Single parent family	3,160	28
No parents	124	1
Base (weighted)	11,129	
Tenure		
Own/mortgaged home	7,274	66
Rent from council	1,438	13
Rent from housing association	1,034	9
Rent privately	1,253	11
Other	114	1
Base (weighted)	11,113	

Over half of young people lived in a household with two parents or guardians (61%), as shown in table 1.3. A further 9% lived in a step family, and 28% in a single parent family. One per cent of the young people were living with no parents or guardians. More details of how this characteristic has been derived and what we mean by a parent is included in annex B.

²² For the purposes of analysis all three types of SEN which are present on the NPD: statement of SEN, SEN with school action and SEN with school action plus have been grouped together

Nearly two-thirds (66%) lived in an owned/mortgaged home, and 11% rented privately. The proportions who rented from a council or housing association were 13% and 9% respectively.

Table 1.4 Mother’s and father’s employment status

	<i>Maternal employment status</i>		<i>Paternal employment status</i>	
	Number (weighted)	Per cent	Number (weighted)	Per cent
Full-time work (30 hours or more)	3,634	34	6,155	82
Part-time work (less than 30 hours)	3,981	37	486	6
Unemployed or looking for a job	306	3	307	4
Education or training	106	1	24	0.3
Looking after home or family	2,222	21	188	3
Other (including sick, disabled)	396	4	382	5
Base (weighted)	10,644		7,541	

Mothers of the young people in the study were more likely to work part-time (37%) than full-time (34%), and 21% were looking after the home, as seen in table 1.4. Conversely, fathers were much more likely to work full-time (82%), whilst only 6% worked part time and only 3% looked after the home. Again more detail about what we mean by ‘mother’ and ‘father’ in the report is included in annex B.

At a household level, 48% of the young people had two parents or guardians in employment, and a further 37% had one parent in work. For the remaining 15% neither parent was in employment.

Table 1.5 Mother's and father's qualification level

	<i>Maternal highest qualification</i>		<i>Paternal highest qualification</i>	
	Number (weighted)	Per cent	Number (weighted)	Per cent
No qualification	1,108	10	792	11
Other qualification	153	1	182	2
Qualifications at GCSE level	2,141	20	1,489	20
5 or more GCSEs A* - C	1,977	19	1,150	15
A levels	1,461	14	873	12
Higher education certificate	1,424	13	115	15
Degree or above	2,352	22	1,928	26
Base (weighted)	10,616		7,528	

As table 1.5 shows, just over a fifth (22%) of mothers had achieved a qualification at degree level or higher, compared with 26% of fathers. Forty-six per cent of mothers and 42% of fathers had achieved five or more GCSEs (or equivalent), A levels or higher education certificates (but not a degree level qualification), whilst 20% of both achieved some GCSE level qualifications (but less than five). Ten per cent of mothers and 11% of fathers had achieved no qualifications.²³

Socio-economic status of young people in the sample

Although income is collected in the survey, we have not used it as an analysis variable, as collection of income data via a survey such as LSYPE2 is prone to respondent recall error and high item non-response. Instead the Income Deprivation Affecting Children Index (IDACI) is used to measure deprivation.²⁴ Throughout we have reported in IDACI quintiles. We also use the National Statistics Socio-Economic Classification (NS-SEC) which, crudely speaking, is a measure of household employment and occupational

²³ Note that qualification levels were self-reported and as such there may be some element of recall bias in the measure

²⁴ IDACI is a measure of deprivation which is based on the proportion of children aged under 16 living in low income households in different areas of the country. Young people who fall into the first IDACI quintile are those who live in the 20% of areas with the *lowest* proportion of children in low-income households (i.e. they live in the *least* deprived areas). Those in the fifth IDACI quintile live in the 20% of areas with the *highest* proportion of children in low-income households (i.e. they live in the *most* deprived areas). More information about the IDACI index can be found:

<https://www.gov.uk/government/publications/english-indices-of-deprivation-2010>.

status.²⁵ We have based the measure of NS-SEC used in this report on the highest reported NS-SEC status in the household which could be either the mother's or father's status.

Table 1.6 NS-SEC and Eligibility for FSM

	Number (weighted)	Per cent
NS-SEC		
Managerial and professional	5,194	47
Intermediate occupations	1,584	14
Small employer	988	9
Lower supervisory and technical	649	6
Routine and semi-routine	2,361	21
Never worked/unemployed	266	2
Base (weighted)	11,043	
Free school meals (FSM)		
No FSM	8,223	84
FSM	1,593	16
Base (weighted)	9,816	

As shown in table 1.6, nearly half (47%) fell into the highest NS-SEC category of 'Higher managerial, administrative and professional occupations'. Fourteen per cent were 'intermediate occupations,' and 9% 'small employers and own account workers'. Only 2% were long-term unemployed or had never worked, and 21% were semi-routine and routine workers. Sixteen per cent of young people in the study were eligible for FSM.²⁶

Characteristics of the areas where sampled young people live

The sample was designed to be regionally representative of young people in year 10. As such, 17% of the cohort lived in the South East and 14% in London, 15% in the North West, 11% in the West Midlands, 11% in the East of England and 10% in Yorkshire and

²⁵ More details about the derivation of NS-SEC can be found here: <http://www.ons.gov.uk/ons/guide-method/classifications/current-standard-classifications/soc2010/soc2010-volume-3-ns-sec--rebased-on-soc2010--user-manual/index.html>

²⁶ FSM status has been taken from the NPD

the Humber, 9% in the East Midlands and 5% in the North East.²⁷ Table 1.7 details the regional breakdown. Seventy-nine per cent of young people in this study lived in an urban location based on the ONS definition of urban and rural locations.²⁸

Table 1.7 Urban/rural and Government Office Region

	Number (weighted)	Per cent
Urban/rural		
Urban	8,797	79
Rural	2,357	21
Base (weighted)	11,154	
Government office region (GOR)		
North East	542	5
North West	1,614	15
Yorkshire and the Humber	1,074	10
East Midlands	976	9
West Midlands	1,226	11
East of England	1,261	11
London	1,515	14
South East	1,882	17
South West	1,066	10
Base (weighted)	11,156	

Type of school attended by young people in the sample

Just under two-fifths (38%) of the cohort attended LA maintained mainstream schools, as shown in table 1.8. A further 40% attended academy converter schools and 13% sponsored academies. Seven per cent of young people attended independent schools and 1% special schools.

Information was generally available on the Ofsted rating of the school if the parent and the young person agreed to the survey responses being linked to the NPD and if the

²⁷ Further information on GOR can be found here: <http://www.ons.gov.uk/ons/guide-method/geography/beginner-s-guide/administrative/england/government-office-regions/index.html>

²⁸ <http://www.ons.gov.uk/ons/guide-method/geography/products/area-classifications/2011-rural-urban/index.html>

young person did not attend an independent school (which are not inspected by Ofsted). Of those where an Ofsted rating was available, just under one-quarter of young people (23%) attended a school rated as outstanding, 50% a school rated good, 22% a school rated as requiring improvement and 5% a school rated inadequate.

Table 1.8 Type of school and Ofsted rating of schools attended

	Number (weighted)	Per cent
School type		
Sponsored Academy	1399	13
Academy converter	4228	40
Independent school	748	7
Special school	158	1
LA maintained	4056	38
Base (weighted)	10590	
Ofsted rating		
Outstanding	2196	23
Good	4774	50
Requires improvement	2080	22
Inadequate	445	5
Base (weighted)	9496	

Chapter 2 Life in year 10 and wellbeing in school

Chapter summary

Chapter 2 describes young people's life in year 10 at school and describes measures which can be seen to be the expression of wellbeing in the school context.

- Overall **attitudes towards school in year 10 were slightly more positive in 2014** than was the case in 2005. Interestingly, and in contrast to many of the trends outlined in chapter 3, there was little difference between boys and girls in their overall attitudes. At the same time, the proportion of pupils truanting fell from 23% to 13%.
- While **overall attitudes towards school worsened between year 9 and year 10**, this is a pattern that has been seen in both LSYPE cohorts. In fact, the decline between 2013 and 2014 was less pronounced than that observed between 2004 and 2005. Year 10 is a transitional year, in which students start Key Stage 4 and the pressures of working towards important qualifications become more obvious. As such, it is perhaps unsurprising that we see this decline, though it is nevertheless important to monitor this effect. It is encouraging that we have seen improvements since 2005.
- **Attitudes to school were negatively associated with deprivation**, family instability, low levels of parental qualifications and illnesses or disabilities that impact on schooling. Across a raft of measures, those from a disadvantaged background had a less positive attitude towards school than those from more privileged backgrounds.
- **A large majority (90%) of year 10 students in 2014 were essentially content with the marks they achieved in their school work.** In spite of the increased seriousness of young people in year 10 which is discussed in chapter 3, there had been little change in this respect between 2005 and 2014. There was a social gradient in this measure, with those from less privileged backgrounds tending to be less positive about their marks.
- **Young people with special education needs were four times more likely to have been excluded from school** in year 10 than young people without such needs (12% and 3% respectively), and had more negative experiences on a number of other measures, as did young people with an illness or disability that affected school.
- **The number of young people expecting to study A levels increased** from 59% in 2005 to 65% in 2014, but the proportion expecting to study other qualifications or undertake part-time/work-based study did not see any such increase.

- In spite of the intervening increase in tuition fees, **the number of young people expecting to apply to university increased** from 60% in 2005 to 71% in 2014. This suggests that (at this stage of their education at least), tuition fees are not a primary inhibitor to aspiration.

Expressions of wellbeing in school

This chapter discusses a number of measures that we might loosely define as an expression of young people's wellbeing specifically in a school context - essentially the extent to which they are engaged with school and education. It also examines bullying, which often arises at school, though may not be limited to it, and may impact more directly on their fundamental wellbeing. As such, the focus of this chapter is on understanding the extent to which young people are engaged, motivated, aspirational and safe at school. Building on this, chapter 3 then looks at their attitudes and wellbeing from a broader, more holistic perspective.

The measures that we discuss in this chapter can be divided into two broad themes:

- Attitudes, aspirations and confidence
- School behaviours and experiences

In the year 10 survey in 2005, young people were asked a number of questions about their attitudes and opinions towards their school, for example whether they liked school and worked hard, or if they were bored in school and felt that it was a waste of time. Taken together these measures can be used to create an overall picture of young people's level of positivity about school. These measures were repeated in the year 10 survey of the new cohort of young people in 2014 and therefore can be used to see how attitudes towards school have changed over time. In addition to this, both cohorts of young people were asked about their aspirations after year 11, whether they were likely to apply to university and, if they applied, how likely they thought it would be that they would get in, as well as their general confidence in their school results.

Alongside attitudinal measures, the young people in year 10 were asked a series of questions about their behaviours and experiences at school, covering topics such as exclusions, truanting and bullying, as well as whether they had been kept off school by their parents and completed their homework. With the exception of homework compliance, all of these measures were asked in both 2005 and 2014²⁹. However, reflecting the growth of social media over this period, it became apparent by 2014 that

²⁹ A set of questions were asked about homework in 2005 but these are not comparable with those asked in 2014, mainly due to a change from interviewer administered questions to self-completion questions

the ways through which young people experience bullying was changing and a new question capturing the prevalence of cyber bullying was introduced.

Many of these measures were explored in detail in the LSYPE cohort 2, wave 1 research report (Baker et al, 2014) which focused on year 9 students, and therefore we will not explore them in great detail again in this chapter. Instead, we will give an overview of the findings from the year 10 survey and summarise where the trends observed in year 9 still stand and where they differ, in order to develop our overall understanding of young people's wellbeing within the school context.

In this chapter we consider each of our measures in turn, providing further details about the questions asked and summarising:

- what the overall level of each measure is among young people in 2014 and how this compares with 2005
- which groups of young people were more disadvantaged in respect of a given measure in 2014, and
- where we have information at both year 9 and year 10, we provide some indication of change between school years, and whether the patterns of change are consistent across both cohorts

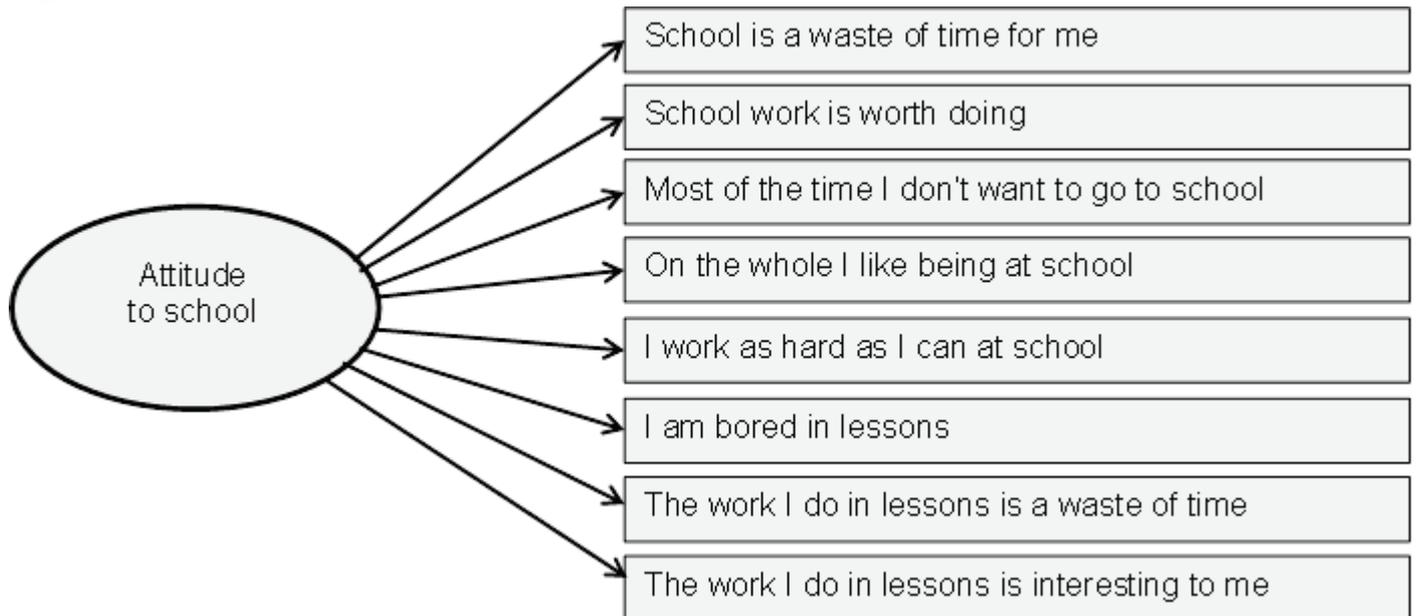
Attitudes, aspirations and confidence

Attitude to school

Young people were asked a series of statements which related to their overall attitude towards school, as outlined in figure 2.1. For this report the scores have been aggregated to create a single measure of their attitude towards school (on a scale of 0 - 24), and this can be expressed as a mean score. This process has been applied retrospectively to the data from 2004, 2005 and 2013, allowing us to make comparisons between cohorts and waves.

The component elements of this overall measure of attitude towards school are shown in figure 2.1.

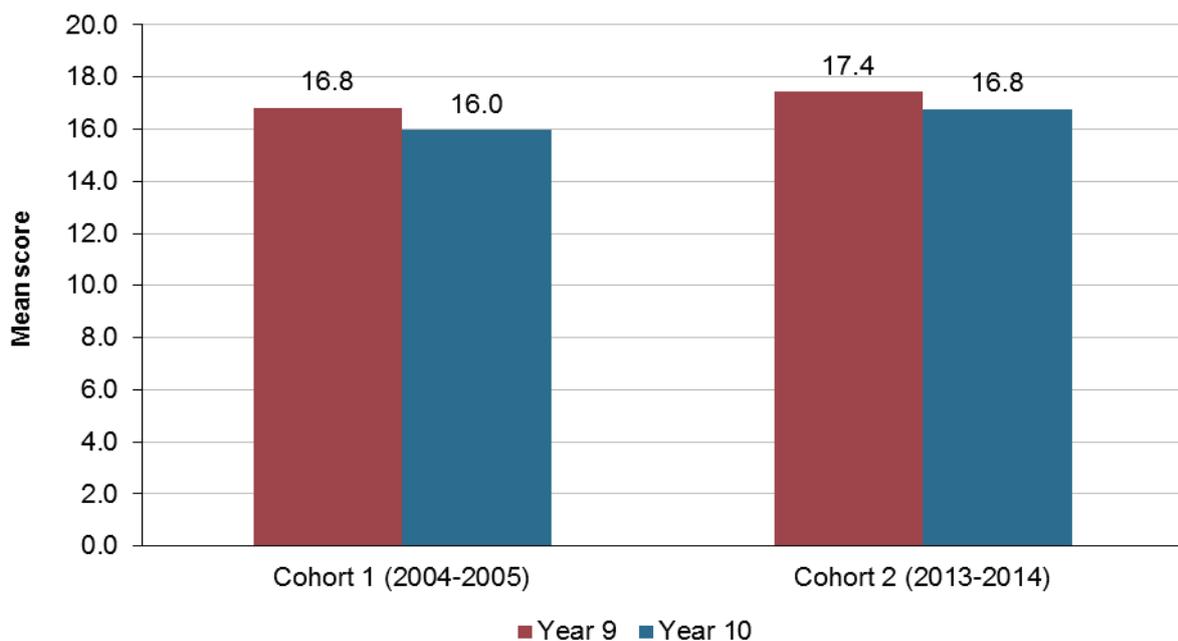
Figure 2.1 Components of overall attitude towards school metric



As shown in figure 2.2, on average young people in year 10 in 2014 were a little more positive about school than young people of the same age in 2005, with means of 16.8 and 16.0 respectively.

It is worth noting that in both the first and the second cohorts (LSYPE1 and LSYPE2), attitude to school worsened between year 9 and year 10. However, in addition to an initial higher mean score in 2013, the second cohort also saw a less pronounced fall between years 9 and 10.

Figure 2.2 Changes in overall attitudes towards school between school years and across cohorts (higher scores = more positive attitudes)



A positive attitude towards school in 2014 was not consistent across all the different demographic groups, although notably there was no significant difference in attitude between boys and girls.

Attitudes varied by ethnic group: compared with young people who identified as white (16.7), those from Indian (18.3), Pakistani (17.5), Bangladeshi and Black African (both 17.5) backgrounds had a more positive attitude towards school.

Attitudes towards school in 2014 were less positive amongst those who had a long-standing illness or disability which affected their schooling (16.0 compared with 16.8 for those with no illness or disability). Those with SEN also had a less positive attitude towards school (15.7 compared with 16.9 for those without SEN).

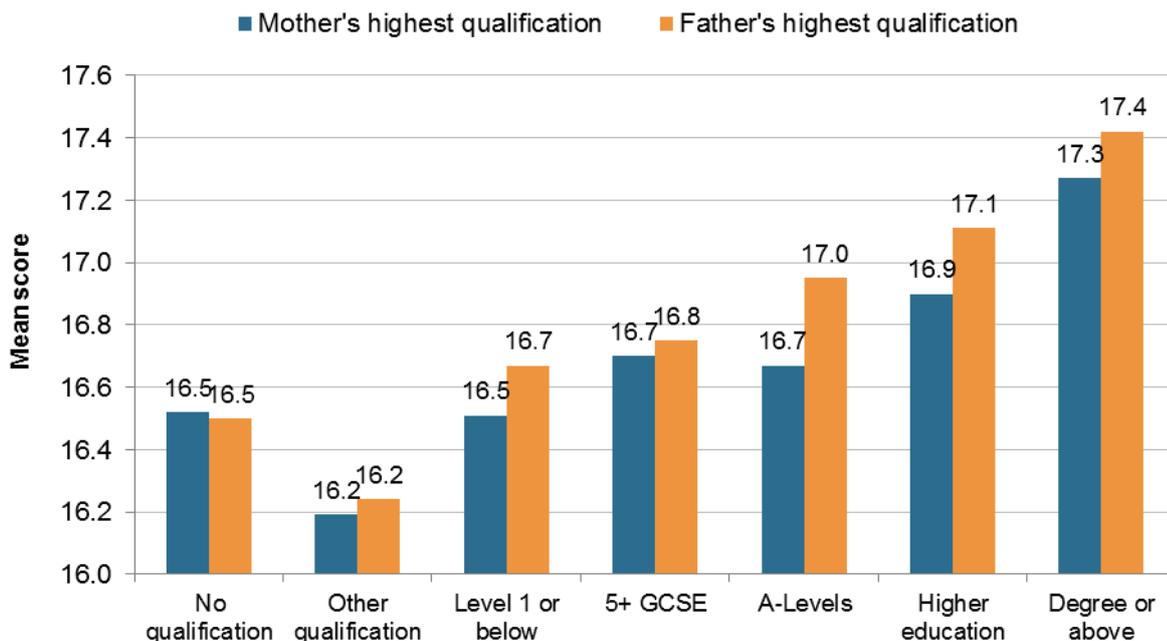
There were a number of results which indicated a more positive attitude towards school amongst young people from a more advantaged background. For example, analysis of school attitude by IDACI revealed an almost linear relationship between attitudes to school and levels of deprivation. Those in the first, least disadvantaged, quintile had the most positive attitude to school (17.1), followed by those in the second (16.9), third (16.7) and fourth (16.6). However interestingly there was a very slight increase in attitude towards school between the fourth and fifth quintile (16.7).

In general, young people with two parents in employment had a more positive attitude towards school (17.0) than those with one parent (16.6) or no parents (16.2) in employment. However the nature of that employment was less important than the fact of being employed itself - there were no clear trends across type of work or whether employment was full or part-time.

The type of family a young person lived in appeared to be associated with attitudes to school. Young people in single parent and reconstituted families reported a less positive attitude on average (16.3 and 16.4) than those living in households with two parents (17.1). Similarly, young people who lived in an owned home (17.0) had a more positive attitude than those whose families rented their homes either from a council (16.3) or housing association (16.2).

Parental education level had one of the strongest relationships with attitude towards school, perhaps as a result of a home life more receptive to and encouraging of academic learning. Figure 2.3 shows this relationship, where young people whose parents have higher academic qualifications, had a more positive attitude towards school. There was a similar although less pronounced relationship with socio-economic groups measured using NS-SEC.

Figure 2.3 Overall attitudes towards school by parental qualification (2014)



Students at high performing schools also had a more positive attitude towards school on average (16.9 for those in schools rated ‘outstanding’ by Ofsted compared to 16.2 amongst those in ‘inadequate’ schools). Furthermore, those at an independent school had a more positive attitude than those at an LA maintained school (18.0 compared with 16.8). There were no significant differences in attitude between young people in LA maintained schools, academies (converter or sponsored), or special schools.

Confidence in getting good marks

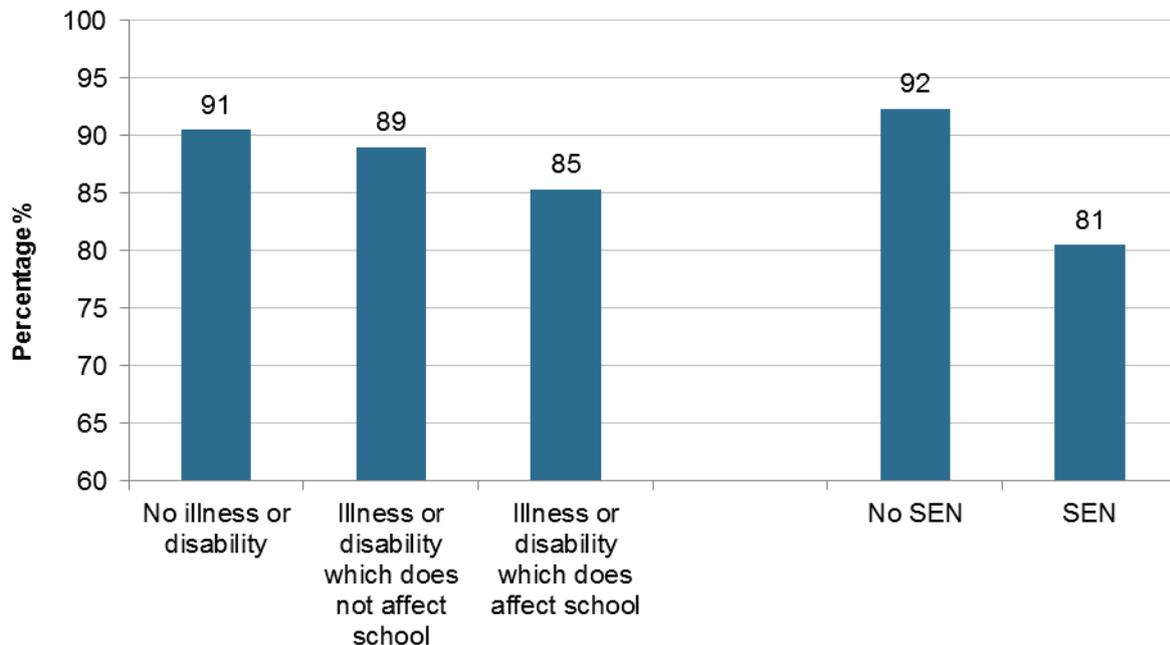
Young people were asked to what extent they agreed with the statement “I get good marks for my work.” It is important to note that this is a measure of self-reported and subjective achievement, and not actual attainment per se. The results therefore reflect more the level of contentment with their grades, than the actual grades they achieve.

Seventy-one per cent of young people in 2014 ‘agreed’ that they got good marks, and a further 19% ‘agreed strongly’. This suggests the large majority (90%) were happy with their performance at school. There were similarly high levels of contentment amongst year 10 students in 2005, when 70% ‘agreed’ with the statement, and a further 16% ‘agreed strongly’.

The proportion who strongly agreed was similar for girls and boys. In terms of ethnicity only those from an Indian background were more likely than those who identify as white to agree strongly that they were happy with their school marks (26% compared to 18% respectively). Those with a long-standing illness or disability which affected their schooling were less likely to agree that they got good marks, though there was still widespread positivity about their own performance (with 85% agreeing overall compared to 91% of those with no illness or disability). Similarly, there was a marked difference in

the proportion of those with and without SEN who agreed that they got good marks (81% compared with 92% respectively), as shown in figure 2.4.

Figure 2.4 Proportion who agree that they ‘got good marks in school’ by illness or disability and SEN



Those who lived with both parents (22%) were more likely to agree strongly that they get good marks than those in step-families (16%) or single parent families (14%). Young people who lived in an owned home (21%) were also more likely to agree strongly than those who rented from a council (15%) or housing association (16%).

The results again suggested a relationship between advantage and schooling. Young people with both parents in employment were more likely to agree strongly that they get good marks (21% compared with 18% of those with one employed parent and 15% of those with no parents in work). Those in the highest IDACI quintile were more likely to strongly agree that they get good marks than those in lower groups (22% compared with 20% of the second, 19% of the third and 17% of both the fourth and fifth quintiles). Socio-economic groups exhibited the same pattern, with the highest group the most likely to agree strongly that they get good marks in school (22%).

Levels of self-reported good marks were higher at schools rated ‘outstanding’ by Ofsted (21% agreed strongly compared with 15% of those at an ‘inadequate’ school). Those at independent schools and special schools were much more likely to strongly agree that they get good marks (30% and 29% respectively, compared to 18% of those at an LA maintained school).

When the year 11 wave of LSYPE2 has been completed and GCSE results can be appended to the datasets, it will potentially be possible to conduct valuable investigations into the interrelationships between grade satisfaction and achievement for different

groups. Is there a greater disparity between satisfaction with marks and actual exam grades in low performing schools? How does the relationship between satisfaction and performance differ between privileged and deprived young people and what role might low expectations play in contributing to low performance?

Aspirations for post year 11

Year 10 students were also asked about their plans post-16. They were asked a series of questions about their plans which we used to derive a measure of post-16 plans with the following options:

- Staying on to study A levels
- Staying on but to study something else
- Part-time/work based study
- Getting a job
- Something else
- Undecided

Sixty-five per cent of young people in 2014 planned to stay in full time education and study A levels, and a further 21% planned to stay in full time education but not to pursue A levels. Nine per cent were planning part-time/work-based study, and 5% were undecided when they completed the survey.

The proportion of young people planning to study A levels after year 11 increased from 59% in 2005 to 65% in 2014. The recently implemented Raising the Participation Age (RPA) policy, which means young people are required to stay in education until the age of 18, is likely to have been the primary driver of this increase. As would be expected, the proportion planning to begin working almost disappeared, falling from 5% in 2005 to 0.3% in 2014.

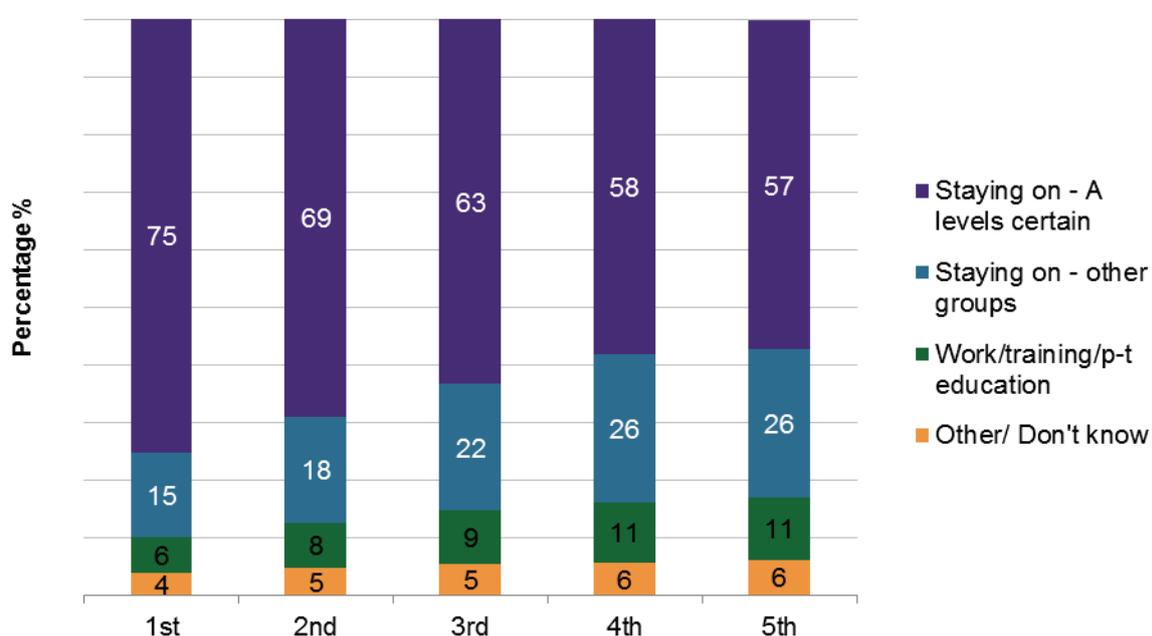
There were a number of differences across demographic groups in terms of post-16 plans in 2014. Boys were more likely than girls to plan to go into work-based/part-time training (13% compared with 5%). Young people from a white ethnic group were the least likely to plan to study A levels (62%), especially compared to those from Indian (88%) and Black African (82%) backgrounds.

Young people with a long-standing illness or disability which affected school or with SEN were less likely to plan to take the conventional route of studying A levels. Only 39% of those with an illness or disability which affects school planned to study A levels (compared with 67% of those with no illness or disability). Of those with an illness or disability, 38% planned to stay in full time education but to study something other than A levels (compared to 20% of those without an illness or disability). Nine per cent were undecided, which was twice as high as for those without an illness or disability. Young

people with SEN were also more likely to plan to stay in full time education studying something other than A levels (38% compared to 18% of those without SEN) or to undertake work-based/part-time training (17% compared to 8% of those without SEN).

Those from less traditional and more disadvantaged backgrounds were more likely to be planning something other than the study of A levels. For example, those who live with a step-family are less likely to pursue A levels (52%) and more likely to be planning work based training (12%) than those in two or one parent units. Nineteen per cent of those with no parents are planning work-based or part-time training. Young people from higher NS-SEC groups and IDACI quintiles are also more likely to plan to study A levels, as shown in figure 2.5.

Figure 2.5 Post-16 plans by IDACI quintiles (2014)



The results also suggest a relationship between parental employment and plans to study A levels. Young people with two parents in employment were more likely to report plans to study A levels. Those with a parent who was unemployed or looking after the family home were more likely to plan to stay in full time education but pursue other qualifications.

Young people whose parents have achieved A levels, higher education qualifications or a degree were more likely to plan to follow a similar path. Eighty-four per cent and 83% of those whose fathers and mothers had a degree respectively were planning to study at A level.

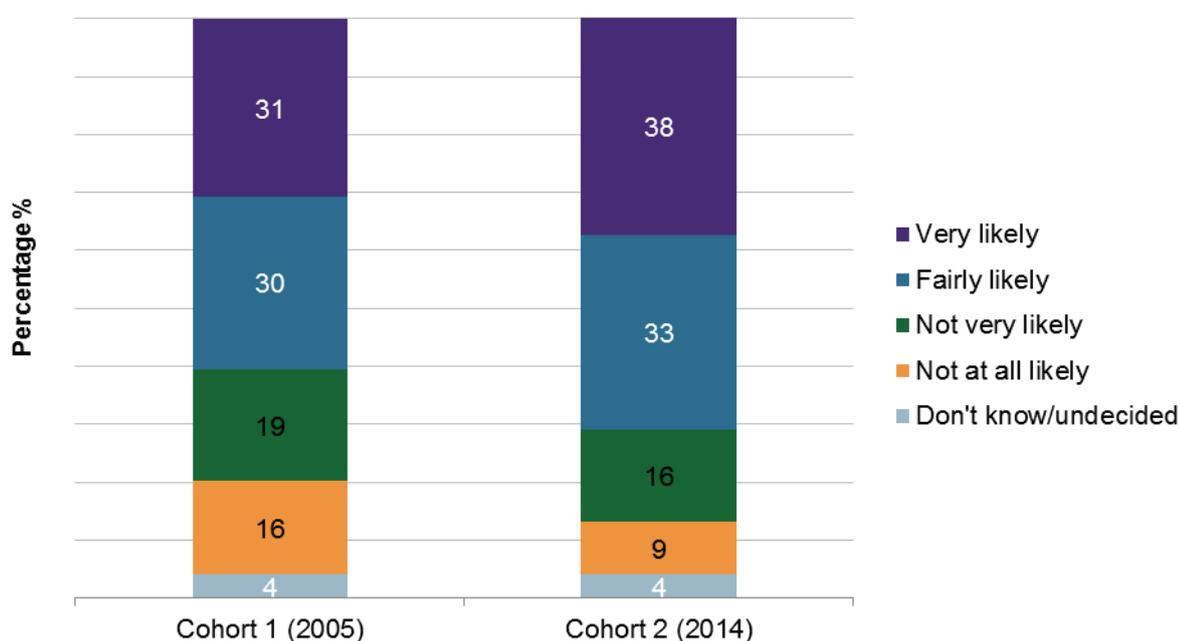
Schools with an 'outstanding' rating had a higher proportion of students planning to continue to A levels. Independent schools followed the same trend, with 88% planning to study A levels, demonstrating the typically strong focus on academic pathways of such schools.

Likelihood of applying for university and confidence about getting in

Looking beyond post-16 plans, young people in 2005 and 2014 were asked how likely they were to apply to university. Those who were fairly or very likely to apply were then asked whether they expected their application to be successful. Both questions were answered with a four point scale of very likely, fairly likely, not very likely and not at all likely.

Seventy-one per cent of young people in 2014 considered themselves at least likely to apply to university; 38% were very likely to do so. Twenty-five per cent were unlikely to apply to university, and only 9% were not at all likely, as shown in figure 2.6.

Figure 2.6 Likelihood to apply to university by cohort



This was a marked change from 2005, when far fewer- 60% of year 10 students - self-classified as 'likely' to apply for university, of which 31% were very likely. Bearing in mind the substantial increase in tuition fees between 2005 and 2014 (see chapter 1) this was somewhat unexpected and might support a notion that the challenging economic conditions of recent years may have contributed to a generation of young people who are more serious and more aspirational. We return to this theme throughout the report. As we obtain future waves of data it will enable us to better understand the extent to which aspiration at year 10 converts to actual attendance at university after year 13. It would also be worth investigating how the differences between expectation and reality may impact on wellbeing as young people reach university age.

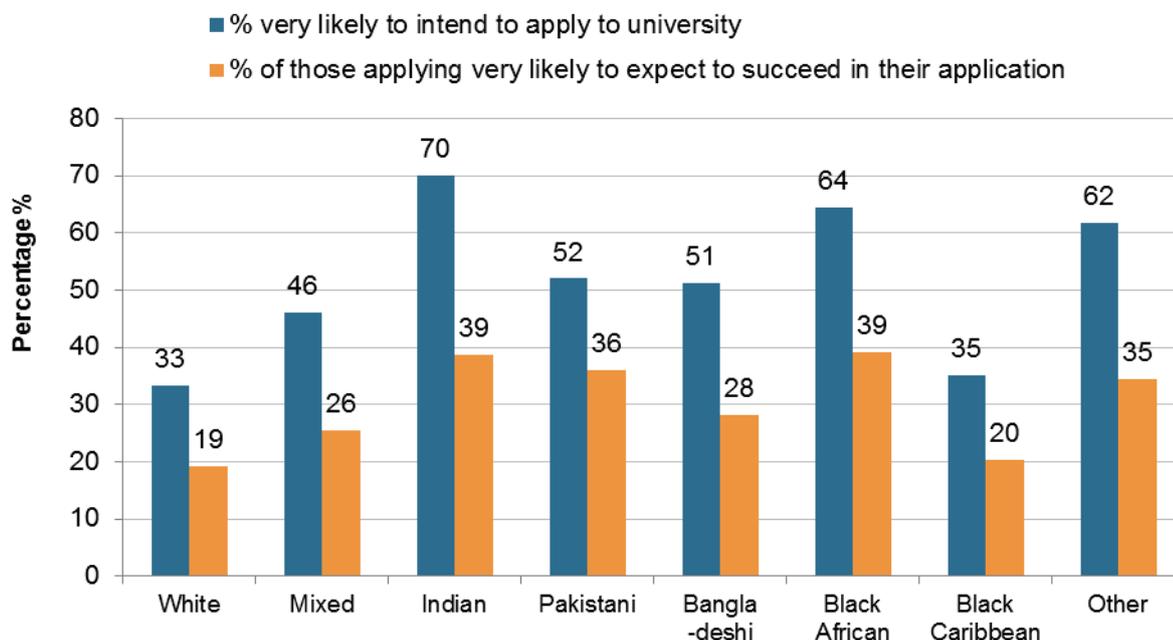
Eighty-five per cent of those in 2014 who planned to apply to university reported that they were likely to be successful, of which 22% were 'very likely.' This is an increase since 2005, when 80% of those who were likely to apply to university were confident they would be successful.

In both 2005 and 2014, the expectations of applying to university fell between year 9 and year 10. However the perceived likelihood of submitting a successful application amongst those that were likely to apply increased at the same time.

Similar trends were seen across different demographic groups as seen in other measurements of wellbeing in school. Girls were much more likely to intend to apply to university (44% compared to 32% of boys), and slightly more likely to expect to be successful (86% compared with 84% of boys). In terms of disadvantage, there were again similar trends to those seen elsewhere in this chapter. Those with a long-standing illness or disability affecting school were much less likely to think they would apply for university (47% were likely to apply, compared with 74% of those without an illness or disability). Likewise for those with SEN (45% compared with 76% of those without such educational needs).

As figure 2.7 shows, young people from white backgrounds were the least likely ethnic group to say that they were very likely to apply to university (33%), and were the least confident they would succeed if they did (19% very likely) relative to other ethnic groups.

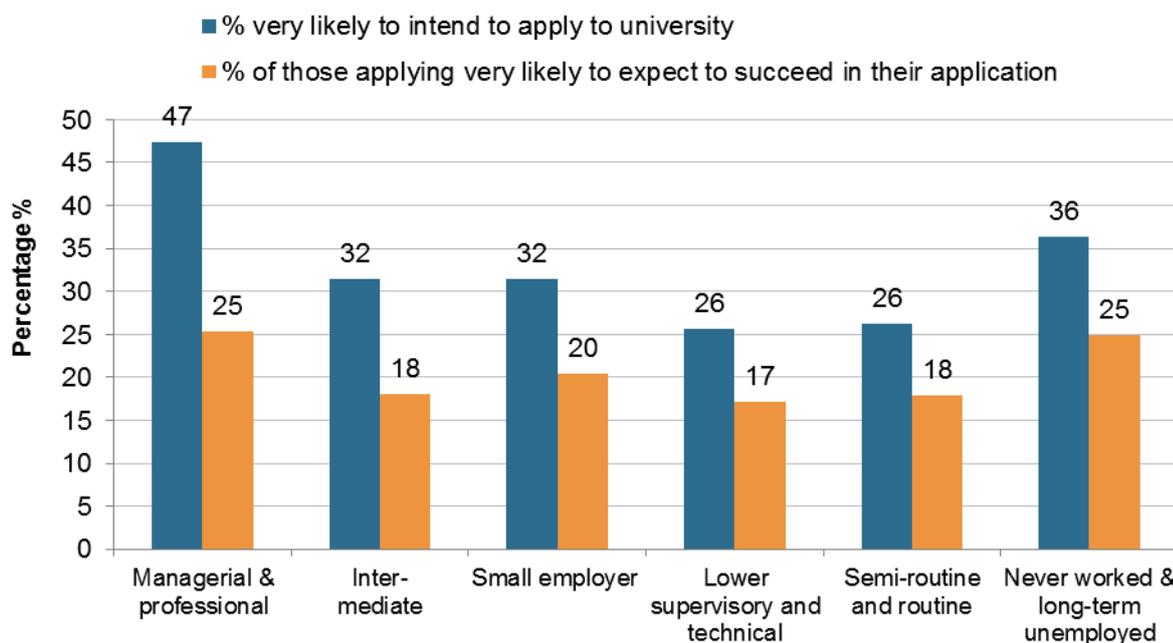
Figure 2.7 Likelihood to intend to apply to university and to expect to gain a place at university by ethnicity



An interesting pattern emerged across socio-economic groups. As shown in figure 2.8 those in the highest NS-SEC groups were the most likely to intend to apply to university and to expect their application to succeed. However, whilst the overall trend was generally fully linear, those in the most disadvantaged group (the never worked or long-term unemployed group) were more likely than those in the middle to both expect to apply to university and be successful in getting in. This suggests that efforts to widen access to higher education for the most disadvantaged may have had some positive impact and suggests that the financial implications of higher student fees are not

disproportionately deterring young people from the least privileged group (though their understanding of university fees in year 10 is likely to still be developing).

Figure 2.8 Likelihood to intend to apply to university and to expect to gain a place at university by NS-SEC



A similar but less pronounced trend is seen across IDACI quintiles, where 78% of those in the first (least deprived) quintile reported being likely to apply to university in the future, followed by 73% of the second quintile, and 69% of the third. There was then a slight increase between the fourth (67%) and fifth quintile (69%), reversing the otherwise downward trend. Perceived likelihood of submitting a successful application followed the same trend, with a slight uplift between the fourth and fifth quintiles.

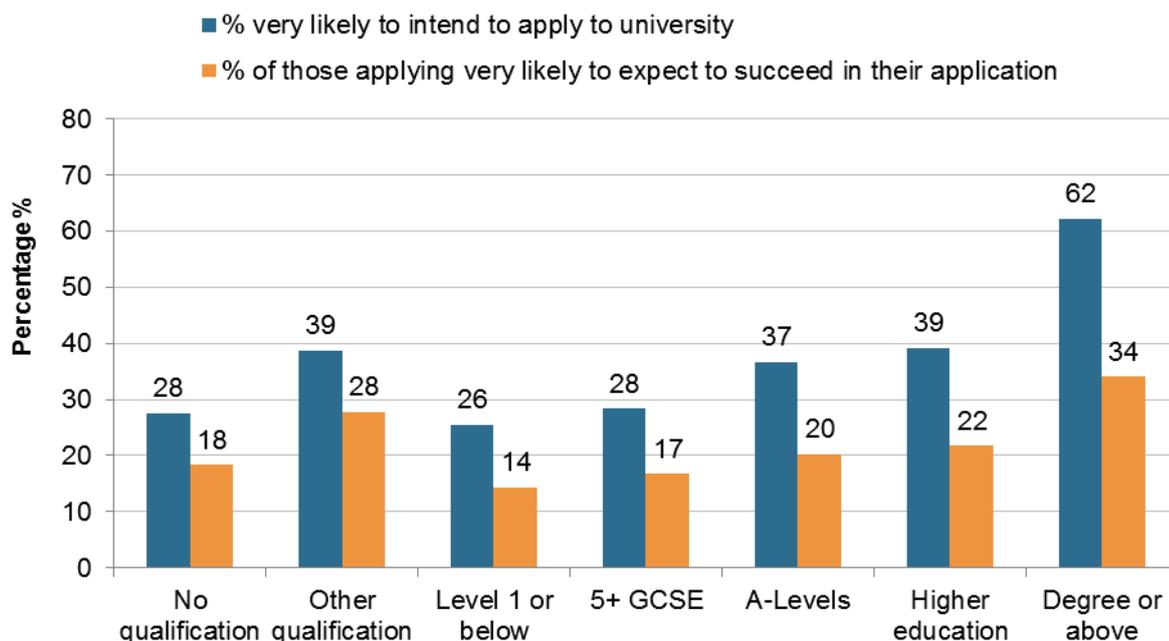
Family constitution again appeared to have an impact, with young people living in two parent families more likely to intend to apply to university, followed by those in single parent families, and then those in reconstituted family units (75% compared with 67% and 61% respectively). Again the same pattern was seen for the perceived likelihood of having a successful application; 88% of those living with two parents and who intended to apply to university reported they expected they would be successful, compared with 81% of those living in single parent families and 77% those living in a step-family.

Those with two parents in employment were also more likely to expect to apply to university (74% compared with 71% of those with one working parent and 60% of those with no working parents) and to expect to succeed in their application (88% compared with 83% of those with one working parent and 78% of those with no working parents).

As may be expected, there is also a relationship between stated likelihood to apply to university and parental qualifications. Maternal qualification appears to be more closely

associated (as shown in figure 2.9), however there are complex interactions at play that would merit further analysis.

Figure 2.9 Likelihood to apply to university and to gain a place at university by highest maternal qualification



Those from higher performing Ofsted schools and independent schools are also more likely to plan to go to university and to expect to succeed in their application. Of those at an ‘outstanding’ rated school, 79% were likely to apply to university, and 88% expected to be successful (compared with 60% expecting to apply and 77% expecting to be successful amongst those young people from ‘inadequate’ schools). There was a pronounced difference in expectations regarding university between those at independent schools and those in maintained schools. Ninety-four per cent of those at an independent school were likely to apply to university, and 97% expected to be successful (compared with 69% and 84% at maintained schools respectively). There were no significant differences in either intention to apply or expectation of success between young people in LA maintained schools, academies (converter or sponsored), or special schools.

School behaviours and experiences

Whether excluded or suspended

As well as asking the young people about their experiences of school, we also asked their parents whether their son or daughter had been temporarily or permanently excluded from school since the beginning of year 10. This was asked using a self-completion method to minimise any social desirability bias. Five per cent of young people

had been either temporarily or permanently excluded from school in year 10 at the time of the interview (4.3% had been temporarily excluded and 0.4% permanently excluded). This represents a significant fall from the proportions who had been excluded in year 10 in 2005 (8.8% were temporarily excluded and 0.8% permanently excluded).

As was found to be the case in the year 9 research report (Baker et al, 2014), boys remained significantly more likely than girls to have been excluded since the beginning of year 10 (6% compared with 3%).

These exclusions were associated with metrics of deprivation and disadvantage - for example, as was the case in year 9, levels of exclusions rose with each successive increase in deprivation on the IDACI index. Only 2% of young people living in the least deprived IDACI quintile had been excluded since the beginning of year 10 compared with 8% in the most deprived IDACI quintile.

Perhaps most striking is the relationship between SEN and exclusions. Young people recorded on the NPD as having SEN were four times more likely to have been excluded from school (either temporarily or permanently) since the beginning of year 10 than those without SEN (12% compared with 3%). While this disparity is understandable to some extent, it is, of course, important to minimise any disruptions to the schooling of young people with SEN. The department has recognised this issue and its statutory guidance to schools on exclusions states:

“22. As well as having disproportionately high rates of exclusion, there are certain groups of pupils with additional needs who are particularly vulnerable to the impacts of exclusion. This includes pupils with statements of special educational needs (SEN) and looked after children. Head teachers should, as far as possible, avoid excluding permanently any pupil with a statement of SEN or a looked after child.”³⁰

However, it is clear that exclusions for young people with SEN remained an issue in 2014 and this is a topic that merits further monitoring and support.

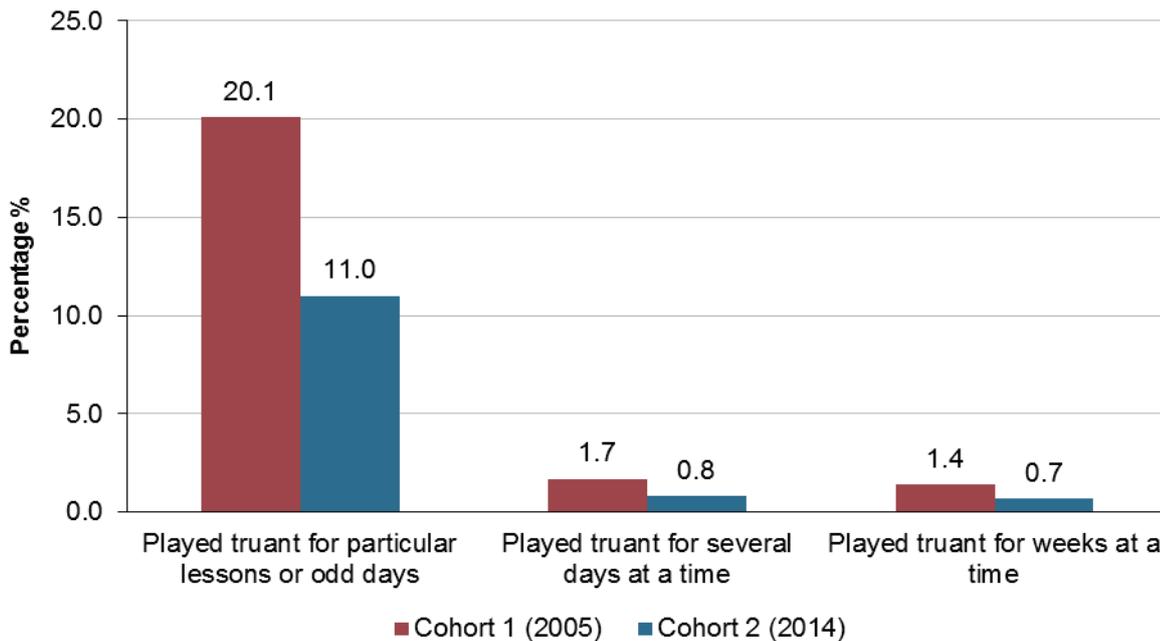
Whether young person reports truanting

As part of their own self-completion questionnaire, young people were asked whether they had ever missed school without permission (i.e. played truant) in the last year and, if so, how often they played truant. The findings here reflect the increase in overall attitude towards school as discussed earlier in this chapter.

³⁰ See: <https://www.gov.uk/government/publications/school-exclusion>

There was a significant drop in the proportion of young people who reported having played truant in the last year between 2005 and 2014. The proportion of young people who reported playing truant at least once in the last year had almost halved from 23% in 2005 to 13% in 2014. In both cohorts the majority of those reporting truancy said it was just for particular lessons or odd days (20% in 2005 and 11% in 2014), with smaller proportions reporting more serious absences lasting several days or weeks at a time, as shown in figure 2.10. The decline in truancy levels between 2005 and 2014 applied to both short term and long term truancy, as shown in figure 2.10.

Figure 2.10 Differences in truanting behaviours between 2005 and 2014



The drop in truancy levels comes amidst a context of increased pressure from the government on parents and teachers to take responsibility for ensuring their children attend school. For example, in September 2013 fines for truancy were increased and the time period allowed for paying penalties was reduced. In addition figures published by the department in March 2014 showed the number of penalty notices issued to parents between 2012 and 2013 had increased by 27%.³¹ As such, the fall in truancy levels may be evidence of the success of such measures though it could also be as well as a reflection of improving levels of school wellbeing.

Truancy was more prevalent amongst particular ethnic groups. Notably, young people from a mixed race background or a Black Caribbean background were more likely to report playing truant in the last year than young people from a white background (19% of

³¹ <https://www.gov.uk/government/news/130000-fewer-pupils-regularly-missing-school>

the mixed race group and 18% of Black Caribbean young people reported truanting compared with 13% of the white group).

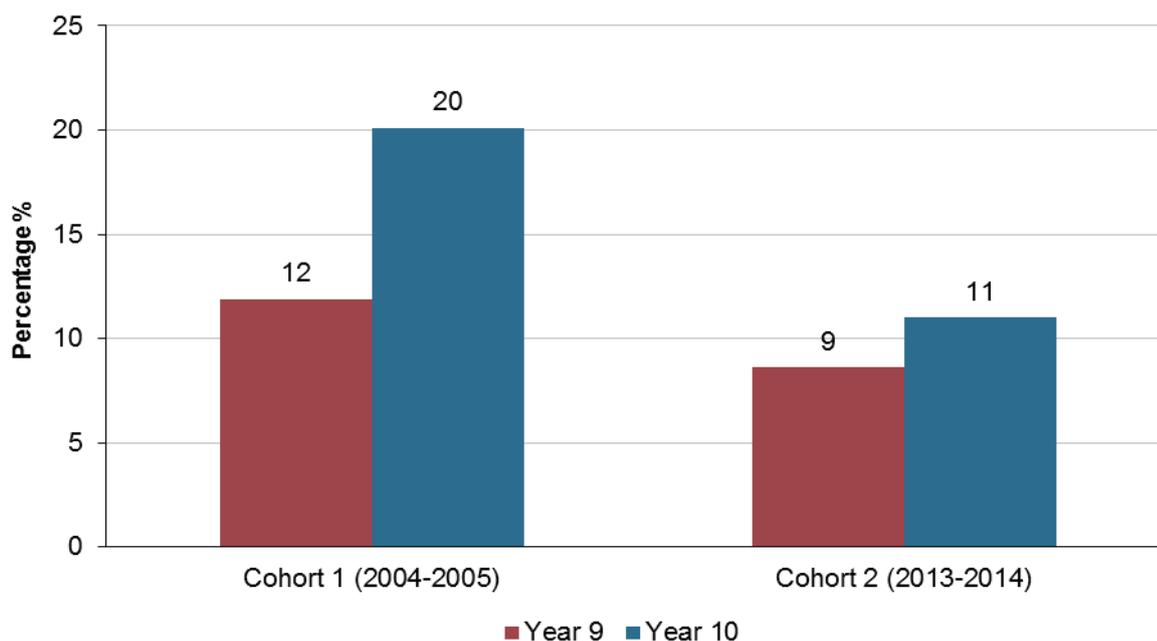
Additionally young people described by their parents as having a long-standing illness or disability that affects their schooling were more likely to report having played truant in the last 12 months (18%) than those without an illness or disability(12%). Having an illness or disability that did not affect their schooling was not, however, associated with truanting. Truanting was also more prevalent amongst young people who had a SEN than those who did not (19% compared with 11%).

The clearest pattern to be seen here is that truanting is linked to disadvantage, and there are several factors associated with disadvantage that show this. For example young people eligible for FSM were more likely to report playing truant in the last 12 months (19%) than those not eligible for FSM (11%). Equally, young people living in a home where no parent, or only one parent was in paid work were more likely to report playing truant (19% and 14% respectively) compared with young people living in a household where both parents were in paid work (10%).

Interestingly, there were no significant differences in the proportion of young people reporting truanting by the Ofsted rating of their school, though the relationship between Ofsted ratings and the profile of children attending schools is complex and this is a topic that would merit further investigation.

Many of the findings linking disadvantage and truanting were echoed in the year 9 research report (Baker et al, 2014), which also showed a decrease in truanting levels between 2004 and 2013 (when the young people were in year 9). The decrease in truanting levels however is much more pronounced in year 10 than it had been at year 9, which is due to a changing pattern across the cohorts. In the first cohort we saw levels of truanting increase by nine percentage points, from 14% in year 9 to 23% in year 10, while in the second cohort, as well as starting from a lower baseline of 10% in year 9, truanting levels only increased by three percentage points to 13% in year 10. Much of this change can be explained by looking at the group of young people who reported skipping the odd lesson or day, as shown in figure 2.11.

Figure 2.11 The proportion of young people playing truant for particular lessons or the odd day in the last year, over time and by school year group



Whether parents keep the young person off school

In addition to introducing new measures to tackle truancy, the government also introduced new legislation in September 2013 which meant schools were no longer allowed to grant permission for pupils to be taken out of school during term time for holidays, and unauthorised absences could be subject to fines.³²

Again during the self-completion questionnaire, young people were asked if their parents had ever kept them off school, for a reason other than illness, in the last year. One in six (16%) young people said that this had happened to them at least once in the last year, the majority saying that this had happened to them less than once a month in the last year (15%) and only small proportions of young people saying that this had happened once or twice a month (0.7%) or every week (0.2%).

This marked a decrease from 2005, when just under a quarter (23%) said this had happened to them at least once.

There were relatively few significant sub-group differences for this measure, and interestingly there was little variation by factors associated with disadvantage. As figure 2.12 shows there were no significant differences by IDACI. There was, however, some variation by region, as shown in figure 2.13. Young people in London were the least likely

³²<http://webarchive.nationalarchives.gov.uk/20130123124929/http://www.legislation.gov.uk/uksi/2013/756/contents/made>

to have been kept off school by their parents (12%), which was significantly lower than in all other regions of England with the exception of the East and West Midlands.

Figure 2.12 The proportion of young people in year 10 whose parents had ever kept them off school, for a reason other than illness, in the last year. Data broken down by IDACI quintile

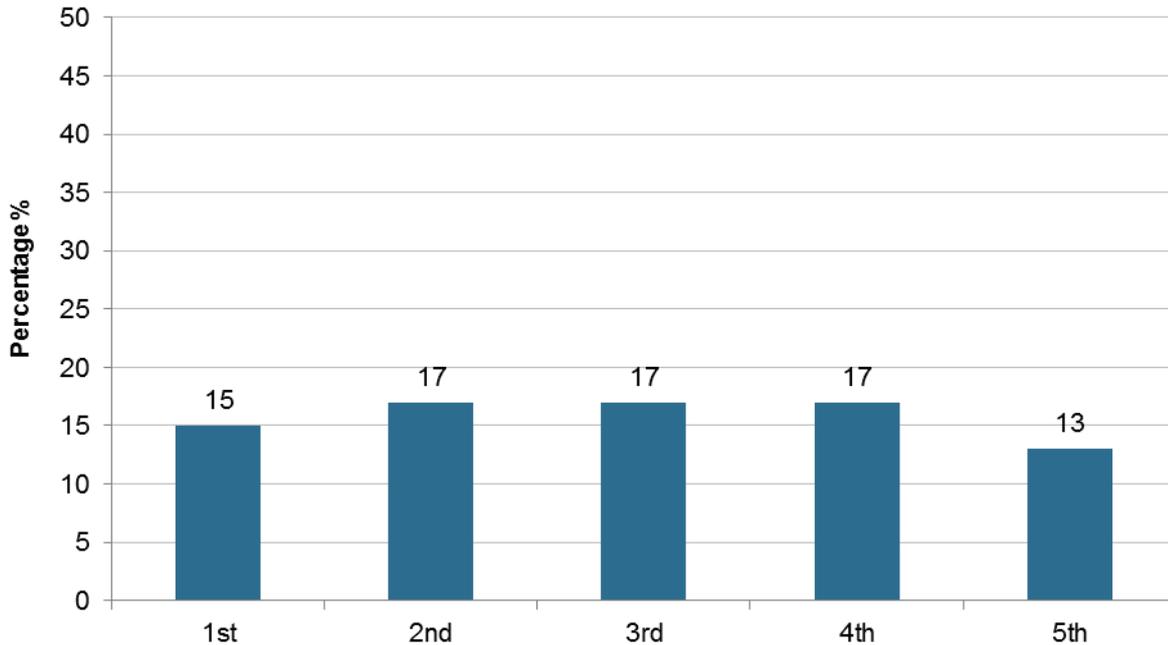
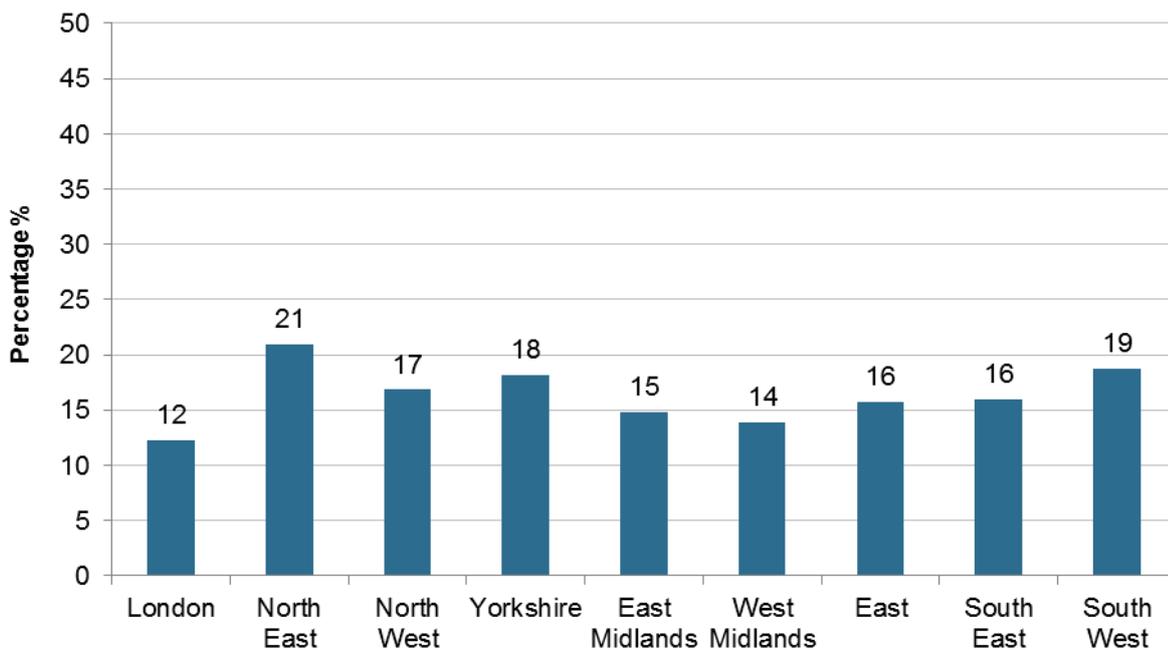


Figure 2.13 The proportion of young people in year 10 whose parents had ever kept them off school, for a reason other than illness, in the last year. Data broken down by region

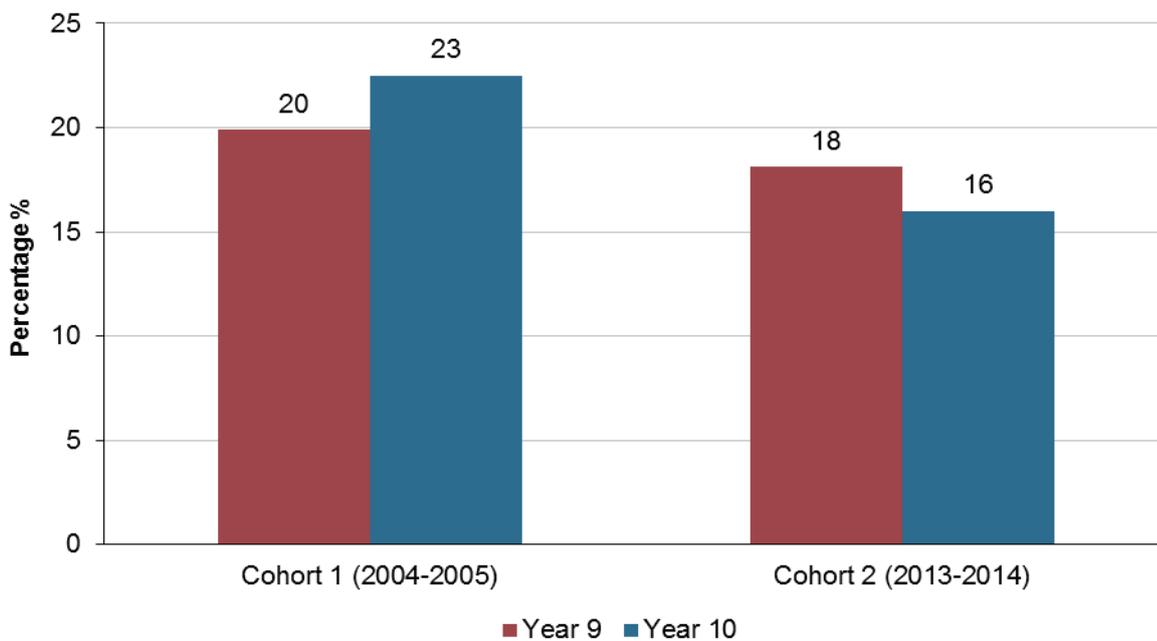


The regional variation may be a reflection of the perceived acceptability of taking term time holidays in different regions but may also suggest that there are differences in the

way different local authorities have gone about enforcing the new regulations. Again, this would merit further investigation.

There was a small reduction in the proportion of young people reporting being kept off school by their parents in the last year between the year 9 survey and the year 10 survey. In the year 9 survey in 2013, 18% of young people were kept off school at least once (compared to 16% in year 10 survey in 2014). This reduction might intuitively be expected given the increased importance of school work in year 10 as the first year of study towards GCSEs. However, interestingly, the opposite pattern was seen between the two surveys in cohort 1. In the first cohort there was an increase from 20% to 23% between year 9 and year 10 (2004 and 2005), as shown by figure 2.14.³³

Figure 2.14 The proportion of young people whose parents had ever kept them off school, for a reason other than illness, in the last year. Data broken down by time and by school year group



The reversed pattern means that the gap between the year 10 survey in 2005 and the year 10 survey in 2014 is much more pronounced than the gap between the two year 9 surveys. This does point to the legislation as being a possible contributing factor, with the larger gap in 2014 potentially being attributable to the legislation having had time to more fully bed in.

³³ The statistical significance of the differences between wave 1 and 2 was not assessed

Compliance with homework

In the year 10 survey in 2014, a number of measures about homework were asked of young people, again using a self-completion method to reduce social desirability bias. Many of these measures were asked in the year 9 survey as well as at the previous cohort. However, in 2014 an additional homework measure was introduced to capture compliance with homework, which allows us to see how much of the homework that is set is completed by young people. This gives us an understanding of how seriously young people themselves take school work, as opposed to time spent on homework, which is more dependent on the amount set by teachers and the rate at which young people work, rather than the young person's own work ethic per se.

Almost a half (47%) of young people in year 10 in 2014 who were set homework said that they normally completed all of it. A further half said they did some or most of it (50%) and only 3% said they did not normally do any of it.

Girls were significantly more compliant with homework than boys, with 51% of girls saying they normally completed all of their homework compared with 43% of boys. There were also variations by ethnic group, with young people from an Indian background being more likely to say they normally completed all of their homework (65%) compared with young people from a white background (47%). Young people from Black African and Black Caribbean backgrounds were the least likely to say they normally completed all of their homework (37% and 36% respectively).

Young people with SEN were much less likely to complete homework than those without SEN (37% and 48% respectively said they normally completed all of their homework).

And as we have seen many times already in this chapter, there is a clear link with disadvantage, in that young people from more advantaged backgrounds were much more likely to be compliant with homework. This can be seen with a number of different factors associated with disadvantage but most clearly perhaps when looking at eligibility for FSM. Only 35% of young people eligible for FSM normally completed all of their homework compared with 48% of those not eligible for FSM.

Experiencing bullying

The measures discussed earlier in the chapter are essentially concerned with the level of engagement with school and education and therefore could be described loosely as expressions of wellbeing from a primarily scholastic perspective. However, the survey also collected information about bullying which is a strong predictor of more fundamental wellbeing (both within and outside the school context).

In the year 10 survey young people were asked, again in self-completion, a number of questions about their experiences of having been bullied. The following different types of bullying were asked about:

- Having been called hurtful names, including by text message or email
- Having been excluded from a group of friends
- Being made to give other pupils money or personal possessions
- Being threatened with violence by other pupils
- Being kicked or hit, or having any other form of violence used against them

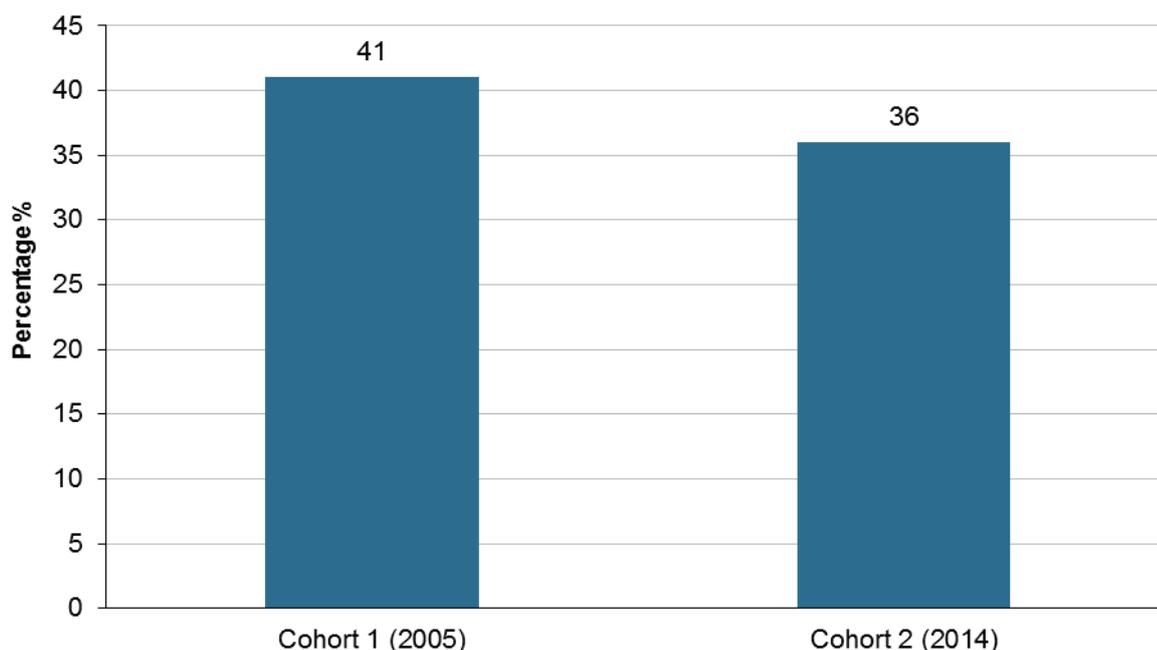
These measures were also asked during the year 9 survey in 2013 as well as during both the year 9 and 10 surveys in 2004 and 2005. In 2014, because of an increased prevalence in cyber bullying, another measure was introduced asking young people if anyone had used the internet or a mobile phone to bother or harass or to spread hurtful words, pictures or videos about them.

Taking these questions together, it is possible to create an overall measure of whether young people had experienced bullying. However, in order to be able to compare across time, a measure for the year 10 survey in 2014 has also been created *without* the inclusion of cyber bullying. Later in this section we look at how the inclusion of cyber bullying impacts on the 2014 data. Bullying was the subject of a recent research brief published by the Department for Education, where more detail on bullying as reported in LSYPE2 can be found (Lasher and Baker, 2015).³⁴

Overall, reported instances of bullying had fallen significantly amongst year 10 pupils between 2005 and 2014, from 41% to 36%, as shown by figure 2.15.

³⁴ <https://www.gov.uk/government/publications/bullying-evidence-from-lsype2-wave-2>

Figure 2.15 The proportion of young people who had experienced bullying in the last 12 months in 2005 and 2014, excluding cyber bullying



Interestingly when looking at the different types of bullying individually, there was some variation in the extent of the declines over time. The biggest drops can be seen in the proportions reporting threats of physical violence or actual physical violence. In 2005 20% of young people reporting having received threats of physical violence in the last 12 months and 15% had actually experienced violence. These figures fell to 14% and 10% respectively in 2014. On the other hand there was no significant difference between the proportions reporting having been excluded from a group of friends between 2005 and 2014, remaining at more or less consistent proportions of 15% in 2005 and 16% in 2014.

As these findings show, the overall measure does hide some nuances, but may also be reflecting overall societal changes, with many types of crime falling relatively consistently over recent years. The advent of the social media age and the omnipresence of mobile phone cameras and video recorders may also have played a part, as discussed in chapter 1. However, while levels of traditional bullying have clearly dropped, it may be that this type of bullying has, to some extent, been replaced by online bullying - a phenomenon that had much less presence in 2005. That being said, even if cyber-bullying is included, the proportion of young people reporting any type of bullying in 2014 only increases to 37% which still represents a significant decrease from 2005.

As discussed in DfE's research brief on bullying the proportions of young people reporting having experienced bullying in the last year fell between year 9 and year 10 from 43% to 36%, representing a fall of seven percentage points. The same decrease was seen between 2004 and 2005 when levels of bullying dropped from 48% in year 9 to 41% in year 10.

Looking only at 2014 data, and including cyber bullying, we can see that bullying is a serious issue for some particular groups of young people. For example girls were more likely than boys to have experienced any kind of bullying in the last year (42% compared with 33%). Almost all minority ethnic groups were less likely than white young people to have experienced any type of bullying (with the exception of young people from a mixed race background), with the lowest reported incidence of bullying amongst Bangladeshi young people (18% had experienced bullying compared with 39% of white young people).

Worryingly almost a half (49%) of young people with a long-standing illness or disability that affects their schooling said they had experienced bullying in the last year, compared with 36% of those that had no illness or disability. Similarly 46% of young people with SEN had experienced bullying compared with 36% of young people without such needs.

Looking at the individual types of bullying, differences by gender were obvious for all types with the exception of being made to give other pupils money or personal possessions. Girls were more likely to have experienced name-calling, being excluded from a group of friends and cyber-bullying and boys were more likely to have experienced threats of violence or actual violence.

The findings for illness and disability hold true for all different types of bullying. Strikingly, more than twice as many young people with an illness or disability that affects their schooling had experienced violence in the last 12 months compared to those without an illness or disability (19% and 9% respectively).

In addition to being more likely to have experienced any bullying in the last year, young people who had an illness or disability or with SEN were more likely to have experienced a greater frequency of bullying. Thirty-four per cent of young people with an illness or disability that affected schooling said they experienced some bullying at least once a week compared with 26% of young people without an illness or disability. Similarly, 35% of young people with SEN experienced bullying at least once a week compared with 25% of young people without SEN.

Summary

As we have seen in this chapter, there have been positive shifts in a wide range of measures which reflect the scholastic wellbeing of young people in year 10 in the context of school. Compared to their counterparts in 2005, young people in 2014 were more engaged with their schooling, more aspirational with respect to applying to university, more positive in their general attitudes towards school and less likely to have truanted or been kept off school by their parents They were also less likely to have experienced bullying.

However, there remained a clear social gradient in many of these measures, with young people from disadvantaged backgrounds faring less well than more advantaged young people suggesting that further efforts to address such inequalities are required. Furthermore, as discussed in the next chapter, there is not such clear-cut positive news in terms of their fundamental wellbeing, posing the question as to whether the more serious attitude towards schooling comes at a cost to some young people.

Chapter 3 Young people's health and wellbeing

Chapter summary

Chapter 3 describes the health and wellbeing of young people in year 10 in 2014 using several different measures to give a broad overview of young people's experience.

- **Overall, young people's health and wellbeing was slightly worse** in 2014 than in 2005 in terms of overall self-reported health and psychological distress. This is particularly so for girls, young people living in single parent and reconstituted families, and those with a long-standing illness or disability that affects their schooling.
- At the same time, young people in 2014 were **more likely to strongly equate hard work with success** and also appeared to be more restrained, reporting fewer risky behaviours than in 2005. This increased seriousness was not, however, accompanied by an equivalent rise in confidence in young people's ability to control their own future. Indeed in 2014, young people were likely to report **slightly lower 'locus of control'** than their counterparts in 2005. This perceived lack of control over their lives was most pronounced among girls, young people in single parent and reconstituted families, and those with a long-standing illness or disability that affected school.
- This decline in locus of control in tandem with the increasing seriousness of young people raises a question explored further in chapter 4 – are rising expectations and higher psychological distress the penalty for more focused students, working harder in school and aspiring to university in greater numbers? Do young people, in the context of a harsher economic climate, feel greater pressure but less confidence in their ability to see their way through?
- **We can see a strong social gradient in most of these measures**, with young people from disadvantaged backgrounds experiencing poorer levels of health and wellbeing, particularly in terms of self-reported health status. An exception – at least based on the GHQ-12 likert scale of psychological distress reported here – is that **disadvantaged young people reported lower average levels of psychological distress** than those from more advantaged backgrounds. Young people living in a household where the highest qualification was degree level or above were also more likely to be psychologically distressed than those with no qualifications (that is, they were more likely to be above the caseness threshold). While the differences were relatively small, this underlines the dangers of assuming that young people from more advantaged backgrounds are free from problems in terms of mental health and wellbeing. Indeed, the data suggest that it is important that support should be provided to young people from all backgrounds.

- Finally, based on a new measure of sleep introduced in 2014, we show that certain groups who rated poorly in terms of a range of wellbeing measures also slept less. We cannot say whether poor sleep patterns lead to poor wellbeing or vice versa, though the relationship is likely to be interdependent. **Disadvantaged groups were over-represented among those with poor sleeping patterns** (both those who slept less than the recommended amount and those who were long-sleepers); while more advantaged groups were more likely to get the optimal amount of sleep.

Measuring general health and wellbeing

In the year 10 survey in 2005, young people were asked questions about their overall health, experiences related to psychological distress, and their response to a series of questions about how much control they felt they had over their lives. In 2014, the new cohort of year 10 students were asked the same questions, and also reported on the amount that they slept. In addition to this behaviour, young people in both cohorts were asked in year 9 and in year 10 about a range of 'risky' activities such as smoking, drinking and vandalism.

Taken together, these questions make it possible to explore a number of dimensions of young people's wellbeing. No single measure provides a definitive picture, but we benefit from looking at wellbeing in a number of ways, each measure with its own value and limitations. Several of the measures (for example measures of general health and psychological distress) are standard instruments that are included in many surveys and are well validated. Since they are based on self-assessment, some differences could reflect variations in how different sub-groups of young people understand or respond to a question, or might reflect changing attitudes to these issues and how acceptable it is to report them (Collishaw and Maughan, et al, 2004). Despite these caveats, these measures make it possible for us to paint quite a detailed picture of young people's wellbeing and are particularly valuable considered alongside so much rich information about school experiences and trajectories. Perhaps most importantly, they provide a baseline for us to track the health and wellbeing of our new cohort of young people into the future and to understand how their life trajectory differs from the last cohort.

In this chapter we focus on young people in year 10 and consider each of our wellbeing measures in turn, providing further details about the questions asked and summarising:

- what the overall level of that measure was in 2014 and how this compares with 2005
- which groups of young people were faring less well than others in 2014, and
- whether the patterns appear to be consistent over time or if some groups appear to have fared worse when we compare experiences in 2005 and 2014
- for one set of measures, risky behaviours, we have information at both year 9 and year 10 and provide some indication of change between school years.

Self-reported health

At the start of the computer-assisted self-completion questionnaire, young people were asked “In the last 12 months would you say your health has been very good, fairly good, not very good or not good at all?”.³⁵ This question is used routinely across many studies, and although responses might vary to a some extent from group to group (for example, because of cultural differences in the interpretation of what constitutes ‘good health’), it is widely used as a way of capturing self-reported overall health because it has been shown to be very predictive of more objective health outcomes (Idler and Benyamini, 1997).

Figure 3.1 shows that in both 2005 and 2014, the great majority of young people described their health as very good or fairly good. Nevertheless, the proportion who gave one of these two positive responses fell from 97% to 93% and – most importantly from a policy perspective - there was a 4 percentage point increase in the number of young people who described their health as ‘not very good’ or ‘not good at all’.

³⁵ Although the majority of the interview was administered face to face by a professional interviewer, these potentially sensitive questions employed a self-completion rather than an interviewer-administered method. This approach should have served to mitigate at least some of the effects around respondent’s willingness to express what they may perceive as weakness or vulnerability.

Figure 3.1 Changes in self-reported health from 2005 to 2014

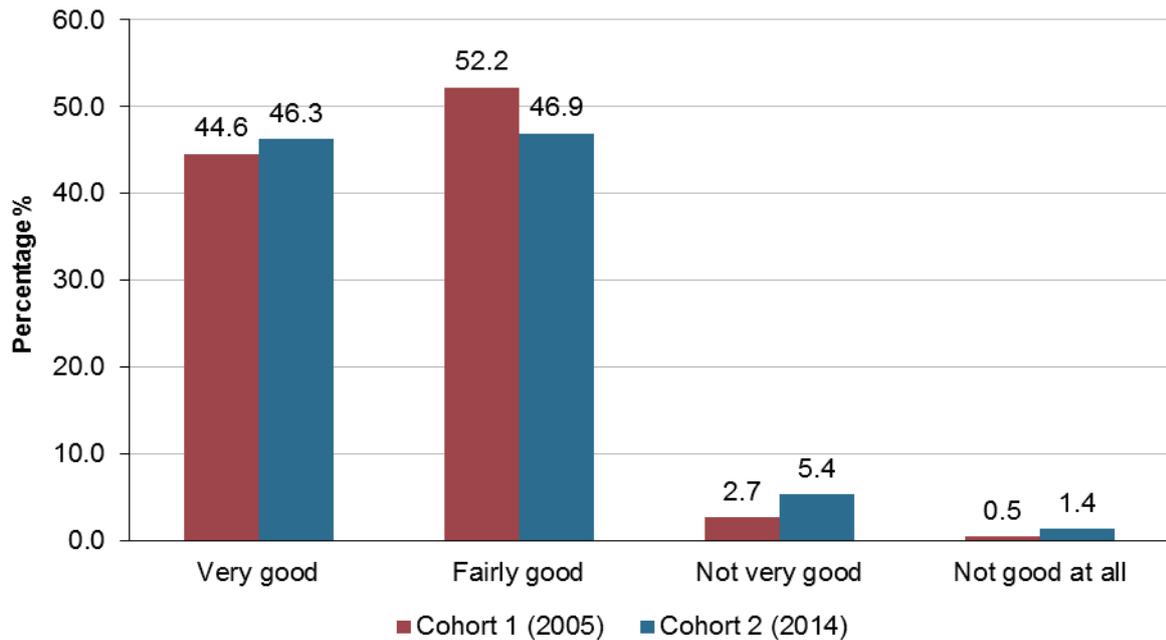
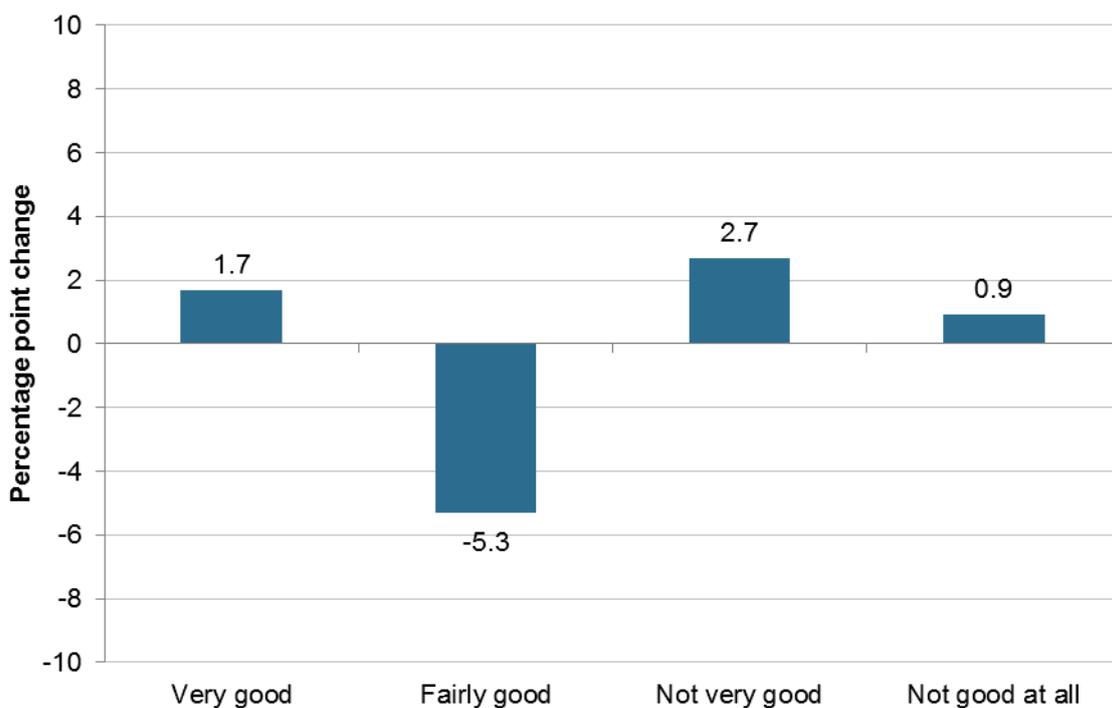


Figure 3.2 shows, however, that it is too simplistic to say that young people’s health had simply worsened. The proportion of young people who describe their health as ‘not very good’ increased from 3% to 5% and the proportion whose health was ‘not good at all’ almost trebled from 0.5% to 1.4%. At the same time, those who reported ‘very good’ health also increased by 2% - evidence that there may have been a slight polarisation in young people’s health.

Figure 3.2 Percentage point changes in self-reported health from 2005 to 2014



When we focus solely on the health of young people in year 10 in 2014, it is clear that the increase in overall levels of poor health tells only part of the story; there are significant variations in the likelihood that young people in different socio-demographic groups report poor health.

Figure 3.3 shows that girls are less likely to describe their health as very good and are significantly more likely to describe their health as not very good or not good at all (with roughly 9% in the worst two categories compared to 4% of boys).

Figure 3.3 Different patterns of self-reported health in boys and girls (2014)

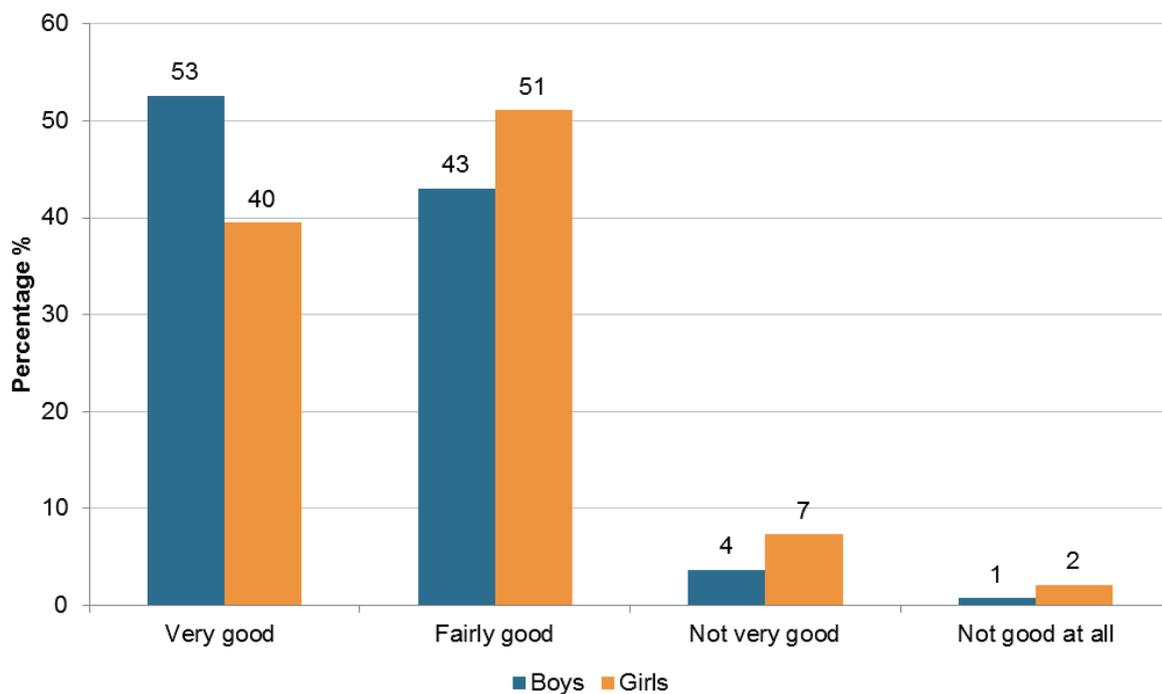
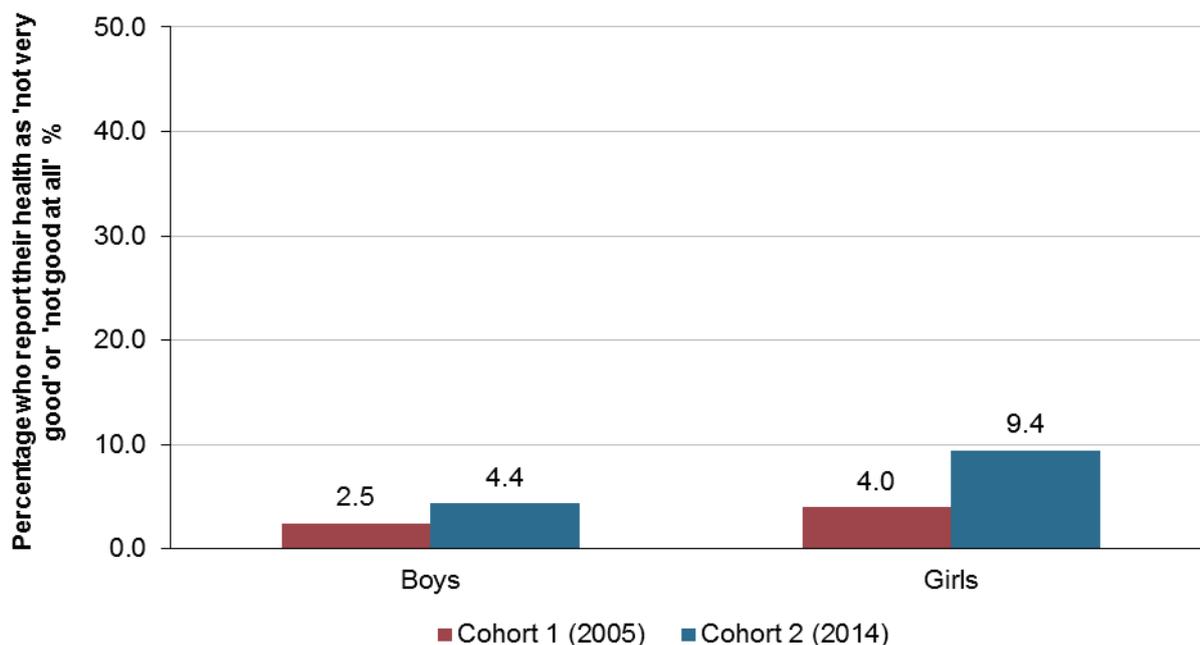


Figure 3.4 focuses solely on those who report that their health is ‘not very good’ or ‘not good at all’ (combining these two categories). It then compares the situation in 2014 with the one reported in 2005. This shows that not only do girls consistently report worse health than boys, but that this disparity between girls and boys has increased since 2005. That said, we should not ignore the fact that self-reported health amongst boys had worsened to the extent that poor reported health amongst boys in 2014 (4.4%) was more widespread than poor reported health amongst girls in 2005 (4.0%).

Figure 3.4 Self-reported health has worsened since 2005 for both groups, but more so for girls



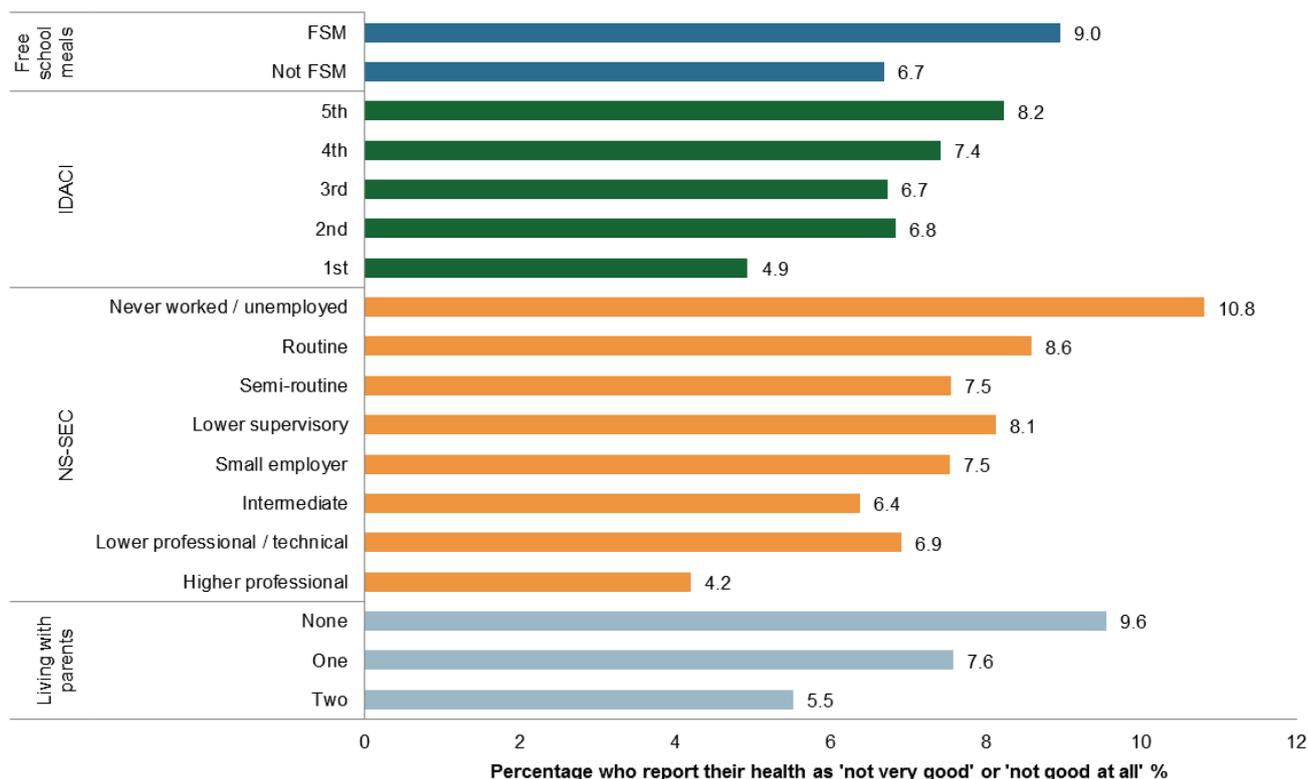
Returning to 2014, there were other social groups which reported worse than average overall health aside from girls:

- When compared to young people living in households with two parents (6% of whom said their health is not very good or not good at all), young people in single parent families fared worse (9%) as did those in step families (8%).
- A higher percentage of those with SEN described themselves as having poor or very poor health compared with those who do not (9% compared to 7%).

Young people whose ethnic group is Black African were more likely to describe their health as very good (52%) compared to white young people (46%), and young people who described themselves as Black Caribbean were less likely to describe their health as not very good or not very good at all (4% compared to 7% who are white).

As well as the differences which affect specific social groups, there is also a clear and consistent pattern which can be observed across a number of indicators of advantage or disadvantage. In particular, there is a distinct social gradient, with those in more disadvantaged groups reporting worse overall health than young people who experience more advantage. Figure 3.5 shows this pattern for four different aspects of young people's lives, three of which are directly linked with economic disadvantage - receiving FSM, living in the most deprived geographical areas and parental social class. It can also be clearly observed in a fourth which is often associated with disadvantage - whether living with two parents. For each variable, the top bar represents greater disadvantage and in all cases shows significantly higher proportions of young people reporting health that is 'not very good' or 'not good at all'.

Figure 3.5 The socio-economic gradient in self-reported health in year 10 (2014)



The corollary of this association with disadvantage is that young people from more advantaged families reported, on average, better health. For example, where the highest qualification in the household was at degree level or higher, young people were more likely to report very good health (almost 50%) compared to young people in households where there were no parental qualifications (just over 45%). At the same time approximately 5% of those in households where the highest qualification was a degree or higher describe themselves in the two worst health categories compared to over 10% of young people in households where there were no parental qualifications. Reporting very good health was also more common among young people who lived in a household where the tenure was owned/mortgaged (over 48%) compared to those whose families rented in one way or another (between around 41 and 43%).

However, in spite of the clear relationship between deprivation and poor health outlined, it should be noted that not all measures follow suit. Although more privileged young people tend to report better health, they fare less well in terms of psychological distress (as discussed later in this section and in chapter 4).

Young people in independent schools (over 56%) and special schools (over 61%) were also more likely to report very good health as were young people in a school with an 'outstanding' Ofsted rating (almost 50%) when compared with those in a school rated as good or requiring improvement (45% and almost 43% respectively) though young people in schools rated as 'inadequate' were just as likely as those in outstanding schools to describe their health as very good. It is important to remember that these observations

about school type may reflect the characteristics of the students who attend the schools, rather than the 'healthy' nature of the school environment. Drawing any clear conclusions about school factors would require further analysis.

Before turning to the next measure of wellbeing, it is worth noting that this account only touches on the available evidence about changing levels of self-reported health. Other studies have already examined self-reported health based on data from the first cohort³⁶. With equivalent data from the second cohort now becoming available, there are excellent opportunities for more detailed cross-cohort analysis. Furthermore, as further waves of data become available, there is a real opportunity to observe how these perceived differences at relatively young ages play out in the future, and to examine their impact on young people's outcomes through school and into early adulthood.

Psychological distress

As discussed in the background section of chapter 1, there is growing interest in the nature and levels of mental health issues experienced by young people, accompanied by a rising appreciation of the impact this is likely to have on shorter-term educational outcomes and longer-term trajectories of young people's lives.

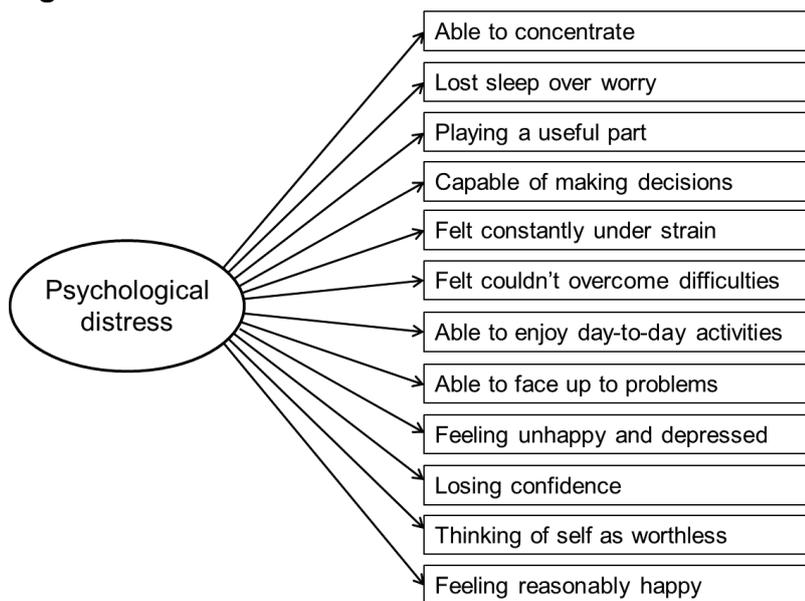
In 2005 and 2014, young people's psychological distress was measured in the year 10 survey using the General Health Questionnaire (GHQ). This records the presence and frequency of a range of symptoms aimed at detecting minor psychiatric morbidity (Goldberg and Williams, 1988). GHQ has been validated in countless studies covering a broad range of populations, including adolescents (Banks, 1983; Winefield, Goldney et al. 1989; French and Tait, 2004).

Measurement with GHQ-12: average 'Likert' scores and 'caseness'

A scale is constructed from twelve items which are a mix of positive and negative mental health symptoms, designed to capture a person's capacity for normal functioning and the presence (or absence) of psychiatric disturbances (see figure 3.6).

³⁶ http://adc.bmj.com/content/100/Suppl_3/A210.2.abstract?sid=c52b08f7-ee5b-4c9f-b080-4b1de9fddf9d

Figure 3.6 The twelve item General Health Questionnaire (GHQ-12)



Respondents are asked (in relation to negative items) whether they have experienced a symptom 'not at all', 'no more than usual', 'rather more than usual' or 'much more than usual' in the last few weeks. For positive items, respondents are asked whether their experience was 'better/more than usual', 'same as usual', 'less than usual', or 'much less than usual'.

Responses are coded and can be summed into an overall scale according to one of four possible approaches (Friedrich, Alexandrowicz et al, 2011). In this report we present the evidence based on the two most widely used approaches. First, responses are coded using Likert scoring (0, 1, 2, 3) deriving a scale with a range of 0-36, where zero is low or an absence of distress. This approach means we are able to talk about average levels of psychological distress quite generally. Secondly, a bimodal scoring is used (0, 0, 1, 1) that captures the number of symptoms experienced more than usual with a range of 0-12, again with zero as low distress. An advantage of this second approach is that it makes it possible to identify more severe levels of psychological distress that might be deemed clinical, using a pre-defined threshold. A common threshold is used for the purpose of this study, which is that a score of 3 or more identifies 'caseness', "indicating a level of psychological distress of potential clinical significance" (West and Sweeting, 2003).³⁷

³⁷ Some of our analyses were repeated with more stringent cut-off points (between three and four, and between four and five) to check that the findings are robust, in other words reasonably insensitive to the criterion used.

Higher levels of psychological distress, particularly among girls

We begin by exploring the level of psychological distress experienced by young people in 2005 and 2014 measured using the continuous GHQ-12 'Likert' scale (which ranges from 0-36). This measures average levels of distress and captures experiences across the spectrum, including mild and moderate levels of psychological distress.

Figure 3.7 shows that between 2005 and 2014, there was a small increase in average levels of psychological distress experienced by young people, with mean GHQ-12 scores rising from 10.1 in 2005 to 10.5 in 2014. We can compare this with changes seen in the proportion of young people we would deem 'psychologically distressed', by looking at those who have three or more 'symptoms' on the caseness scale (shown in figure 3.8). Although there was a small rise in the percentage of young people who were psychologically distressed, from 25% in 2005 to 26% in 2014, this was *not* statistically significant. This suggests that from 2005 to 2014 there was a small increase in the *average* level of psychological distress but not in the proportion experiencing clinical levels of distress.

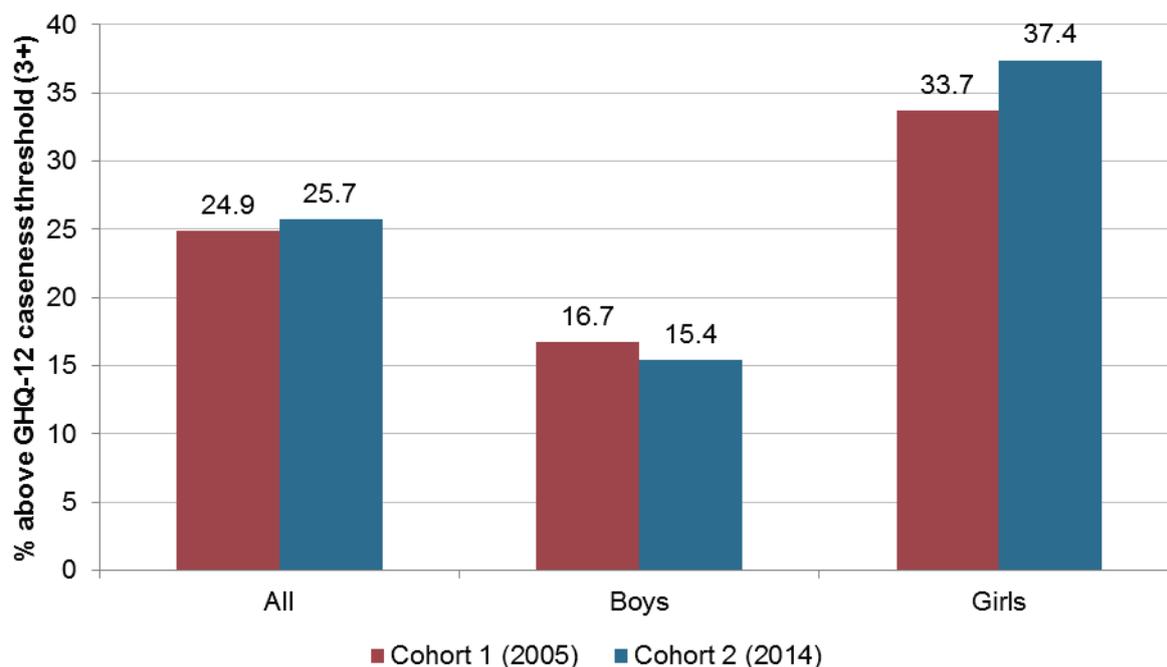
This average, however, conceals an important and significant trend in the levels of psychological distress experienced by girls. There is a well-documented pattern of girls recording higher levels of psychological distress than boys, in part reflecting the idea that girls are more likely to internalise distress (resulting in higher scores on scales which capture emotional wellbeing) (Angold and Rutter, 1992), while boys are more likely to externalise distress (for example through negative behaviours) (Lewinsohn, Hops et al, 1993). The difference between girls and boys is marked. The bars in figure 3.7 show that in 2014, average levels of psychological distress measured by GHQ-12 were approximately 4 points higher for girls than boys (12.6 compared to 8.6).

Still focusing on 2014, the first blue bar in figure 3.8 shows that, overall, 26% of young people had three or more 'symptoms'. This obscures the stark difference between the 15% of boys who were psychologically distressed (and above the 'caseness' threshold for GHQ) compared to a very substantial 37% of girls.

Figure 3.7 Increase in average levels of psychological distress since 2005



Figure 3.8 Increase in proportion of 'psychologically distressed' young people since 2005



While girls were already displaying greater levels of psychological distress than boys in 2005, it is also striking that their situation worsened between 2005 and 2014, with average levels rising from a mean GHQ score of 11.5 to 12.6 (while there was actually a fractional improvement for boys). There was a similar pattern for caseness – the proportion of boys who were psychologically distressed, that is above the caseness threshold, dropped slightly (from 17% to 15%) though this was not statistically significant,

while the percentage of girls on or over the threshold of 'caseness' rose from 34% to 37%.

As such, even if some of the disparity between girls and boys may stem from differences in their approach to answering the GHQ-12 questions, there are strong indications of diverging patterns in psychological distress between the genders since 2005. The cause of this is challenging to identify, but could well be influenced by the factors outlined in the background section of chapter 1 (including the impact of social media and concerns about their employment or financial prospects). This would certainly appear to be a prime candidate for further investigation using the LSYPE datasets.

Socio-demographic variations in psychological distress in 2014

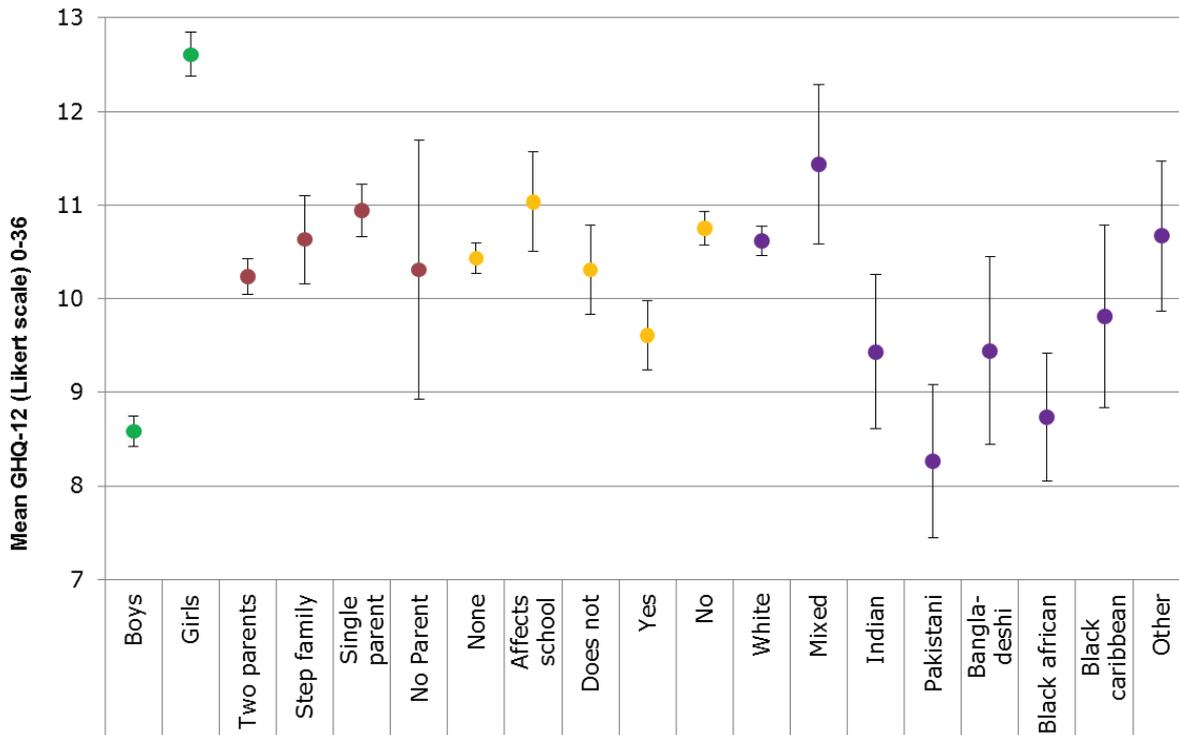
So far, we have focused particularly on gender differences because these are the most pronounced in absolute terms and have also seen sizeable changes since 2005. However, there are a number of other important differences in the levels of psychological distress experienced by young people based on personal and family characteristics - the differences in average scores are shown in figure 3.9.

Focusing on 2014, the data shows that:

- Family composition is clearly associated with variations in psychological distress, both in terms of average scores on the Likert scale and more pronounced levels of distress using the caseness threshold. Young people in single parent families had an average level of psychological distress of 10.9 which is higher than those with two parents (10.2). Similarly there was a greater likelihood of young people living in single parent families being above the caseness threshold when compared with young people living with two parents (29% compared to 24%).
- While young people in step-families or reconstituted families reported having higher average levels of psychological distress than those living with two parent families, this was not statistically significant. Nevertheless, like young people in single parent families, young people in step families were significantly more likely to be above the caseness threshold, with 28% of this group on or above the threshold compared (again) to the 24% of those living with two parents. Because LSYPE only included a small number of young people who were not living with any parents it is not possible to report on this group with absolute confidence, but the indication is that they were also more likely to experience levels of distress above the caseness threshold.
- There is also a significant relationship between average levels of psychological distress and ethnicity with young people who are Pakistani (mean score of 8.3), Black African (mean score of 8.7) and Indian or Bangladeshi (both with a mean score of 9.4) showing lower average levels of psychological distress in comparison to those who are white (with a mean score of 10.6). However, when compared with the 26% of young people who are white and are psychologically distressed (in so

far as they were on or above the caseness threshold), only those who were classified as Pakistani were less likely to be psychologically distressed (18%). The 'other' ethnicity group (which comprised young people from a range of backgrounds, including Chinese) displayed similar average scores to white young people, but were more likely to be psychologically distressed (over 31%).

Figure 3.9 Variation in GHQ-12 scores by socio-demographic group in 2014³⁸



- Young people with an illness or disability that affects their schooling were more likely to be on or above the caseness threshold (31%) than those who were not reported to have a long-standing illness or disability at all (25%). However, illnesses that do not affect schooling did not have such a negative effect.
- Although in some areas of investigation there were commonalities in the challenges presented by having an illness or disability that affected school or having SEN (for example both experienced higher levels of bullying), unsurprisingly there were other areas where experiences diverged. Young people with SEN had lower average GHQ-12 scores (9.6 compared to 10.8) and a lower proportion were above the caseness threshold (24% compared to 27% without SEN).

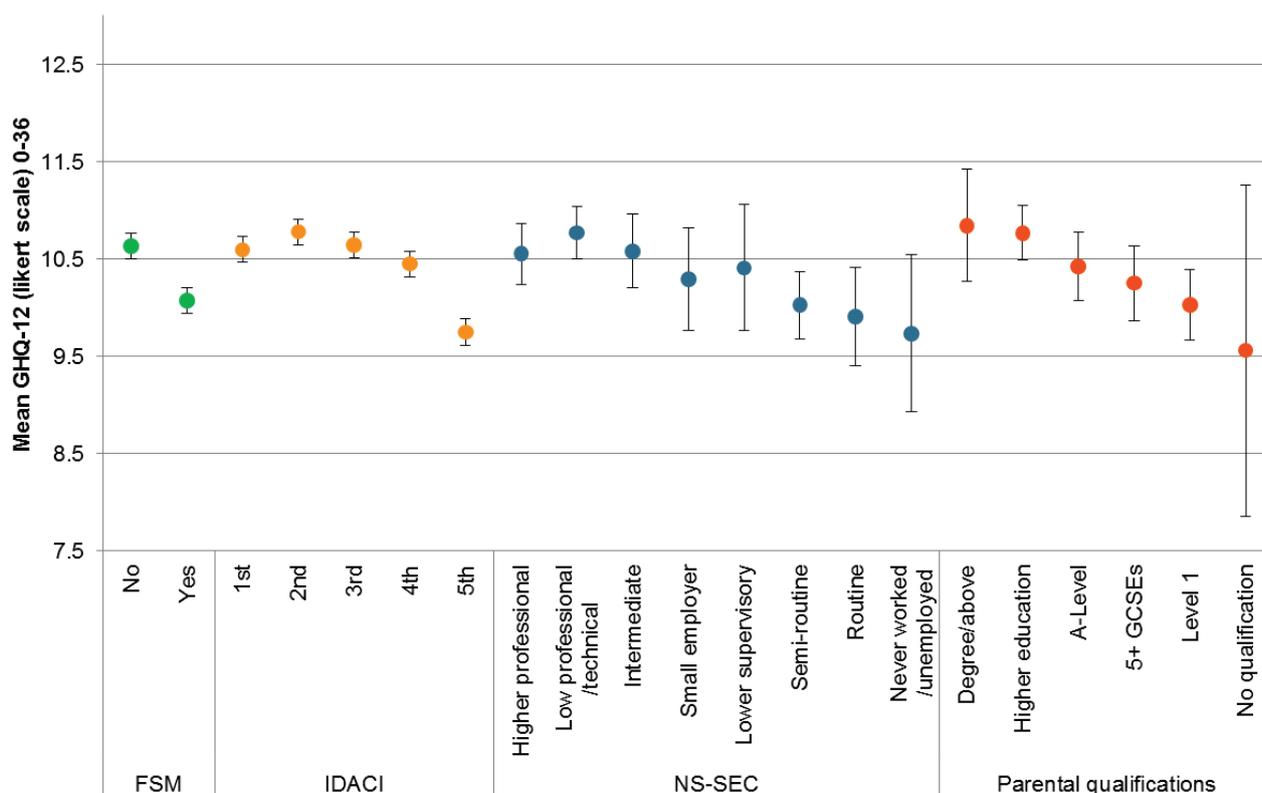
³⁸ When bars do not overlap this is indicative of significance and where they overlap heavily this suggests non-significance. However where bars overlap slightly, the difference may nevertheless be statistically significant.

- Sometimes, findings that are *not* significant are especially worth noting. Given the intermittent interest in the effect of parental employment (and particularly mothers' working) on young people, it is interesting that parental employment was not, broadly speaking, associated with clear variations in average levels of psychological distress. There was, however, one aspect of this relationship which was significant – young people living in a household where the mother looks after the home or family had slightly lower average GHQ-12 scores than young people in households where the mother worked full-time (9.9 compared to 10.5). However this observation does not provide evidence that having a stay-at-home-mum is good for your mental health – and most importantly, as we will see later, this effect disappears when we take a multi-variate approach (chapter 4) suggesting that this difference is likely to be explained by other factors such as the different socio-economic status of young people in these two kinds of households.

Psychological distress and socio-economic status in 2014

While other measures show a correlation between deprivation and poor health or wellbeing, this does not apply to psychological distress. Unlike other measures of wellbeing, there is a consistent tendency for members of a socio-economically disadvantaged group to be associated with lower (and therefore 'better') average GHQ-12 scores. Although one or two observations of this kind might be a statistical oddity, the same pattern can be seen across several measures of disadvantage, which supports the case that this is a genuine pattern (see figure 3.10).

Figure 3.10 A small inverse social gradient in average levels of psychological distress, 2014



Looking more closely at the numbers behind figure 3.10 shows that:

- Young people in households in the two lowest socio-economic groups (NS-SEC) had lower average levels of psychological distress (measured by average GHQ-12 scores) than those in the highest. Like FSM, the relationship between socio-economic group and being psychologically distressed (that is above the GHQ 'caseness' threshold) was not significant.
- The same pattern holds with living in a disadvantaged area. Young people had lower average levels of psychological distress in the fifth and most disadvantaged IDACI quintile (with average GHQ scores of 9.7) compared to those in the highest quintile (with average GHQ scores of 10.6). Again there were no significant differences in terms of GHQ caseness in the proportion who were psychologically distressed (and above the GHQ caseness threshold).
- Compared with London (whose average GHQ-12 score of 10.1 is likely to mask significant internal variability due to the City's complex social and ethnic mix) three areas - the South East (11.0), South West (10.8) and East Midlands (10.7) - had higher average levels of psychological distress. Once again – there were no significant differences in terms of those that were psychologically distressed (in terms of GHQ caseness).

- The most striking example of this pattern is the inverse relationship between highest educational qualification in the household and the average level of psychological distress. Young people living in households where at least one parent had a degree level or higher qualification had higher average levels of psychological distress (10.8) than young people living in households where the highest qualification was at GCSE level (10.3), or was below GCSE level (10.0) or where neither parent held any qualifications at all (9.6).
- In summary, there appears to be an association between 'advantage' and increased average levels of psychological distress. However there is little evidence that 'clinical' levels of psychological distress were more frequent among advantaged groups with one exception. There is, in fact, a statistically significant relationship in the proportion who were psychologically distressed (GHQ caseness) in households where the father holds a degree. In such households, just over 25% of young people were above the threshold whereas in households where fathers held no qualifications less than 20% of the young people in year 10 were above the threshold. Although these findings about the relationship between advantage and distress may be considered somewhat unexpected, similar findings have been reported elsewhere (West and Sweeting, 2003).

One possible implication is that while tackling social and economic disadvantage remains a key priority, we need to acknowledge that rising levels of psychological distress do **not** only affect young people who experience disadvantage. Indeed there may be some ways in which having lower social status (for example having parents without any qualifications), may be associated with lower levels of expectation for school success and lower levels of associated pressure. Another possible explanation is that young people from disadvantaged backgrounds may be more resilient in the face of increased stressors associated with a more challenging economic and school environment. It is also possible that young people in more advantaged households may be more aware of the challenging macro-economic climate which potentially awaits them in later years (see chapter 1) due to their differing media consumption patterns. We examine the association between advantage and higher average levels of psychological distress further in chapter 4. At this stage, we can only really hypothesise, but it is clear that this and future waves of LSYPE offers unique and fascinating opportunities for further investigation.

As already mentioned, a link between advantage and psychological distress measured using GHQ-12, including clinical levels of distress, has been previously demonstrated in a study of 15 year olds in Scotland (West and Sweeting, 2003). However, a more recent study, assessing the mental health of eleven year olds in the Millennium Cohort Study (MCS) using the strengths and difficulties questionnaire (SDQ) found quite contrary results. The study found that children from the lowest income families were more likely to have mental health problems than those from the highest earning backgrounds (Gutman et al, 2015). Furthermore, they found that boys, not girls, had worse mental health and that rates were stable or possibly falling overtime. Differences in findings in studies examining mental health are not uncommon and are often attributed to differences in the

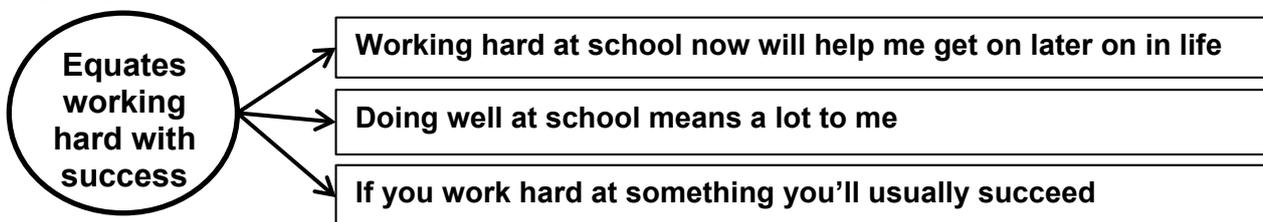
instrument used to measure mental health. SDQ captures both internalising and externalising behaviours, with the latter often shown as more prevalent among boys (Lewinsohn, Hops et al. 1993). It is also derived from parent and teacher reports of the child's symptoms, whereas GHQ-12 is self-report. Previous studies using multiple instruments have also shown increases in self-reported symptoms at the same time as stable or declining teacher and/or parent reported symptoms (Sourander, Niemela et al. 2008). Finally, the children in MCS were aged eleven at the time of assessment. It will be interesting to see how trends develop as they get older and begin Key Stage 4. Regardless of the differences, both scales are widely used for research purposes and are valuable in different ways. The differences serve to emphasise, once again, the importance of realising that mental health issues impact on a wide range of young people and that efforts to alleviate should not be focused on one group at the expense of others.

Equating hard work with success, and locus of control

As well as answering the questions about psychological distress we have discussed, the young people also responded to a series of eight attitude statements which, broadly speaking, explored how fatalistic they felt about their lives. This was again administered using a self-completion method. We examined the data from this battery of statements and found that they captured two underlying concepts (or latent constructs) which we labelled 'equates hard work with success' and 'locus of control'. We arrived at these two constructs using a statistical technique called factor analysis. Two of the eight statements did not fit statistically with our constructs and were therefore excluded from the analysis (results of the factor analysis are presented in annex D).

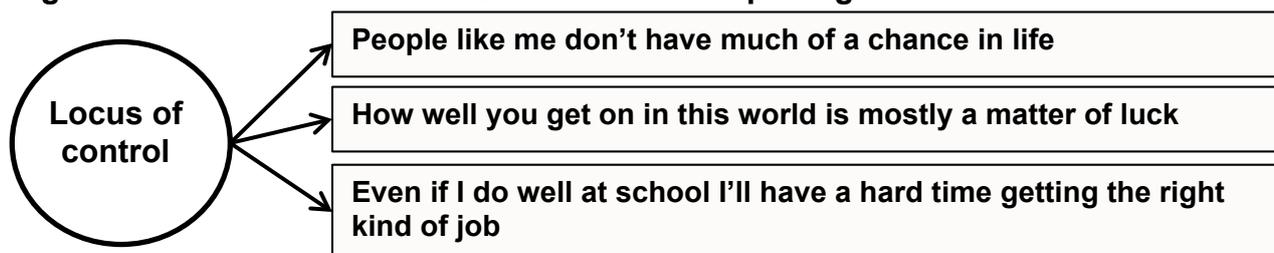
The first concept is measured by the three statements illustrated in figure 3.11 and refers to the belief in the value of working hard at school and more generally in order to succeed. 'Equates hard work with success' was measured on a scale of 0-9; the higher the score the more strongly the young person equates working hard with success.

Figure 3.11 The three attitudes statements comprising 'equates working hard with success'



The second set of statements captures the concept of locus of control. Psychologists describe this as an aspect of personality related to the extent to which individuals believe they can control events affecting them (Rutter, 1954). The three statements used here to capture this underlying concept are shown in figure 3.12. Locus of control was measured on a scale of 0-9 and scores were reversed so that a high score represented higher locus of control.

Figure 3.12 The three attitudes statements comprising locus of control



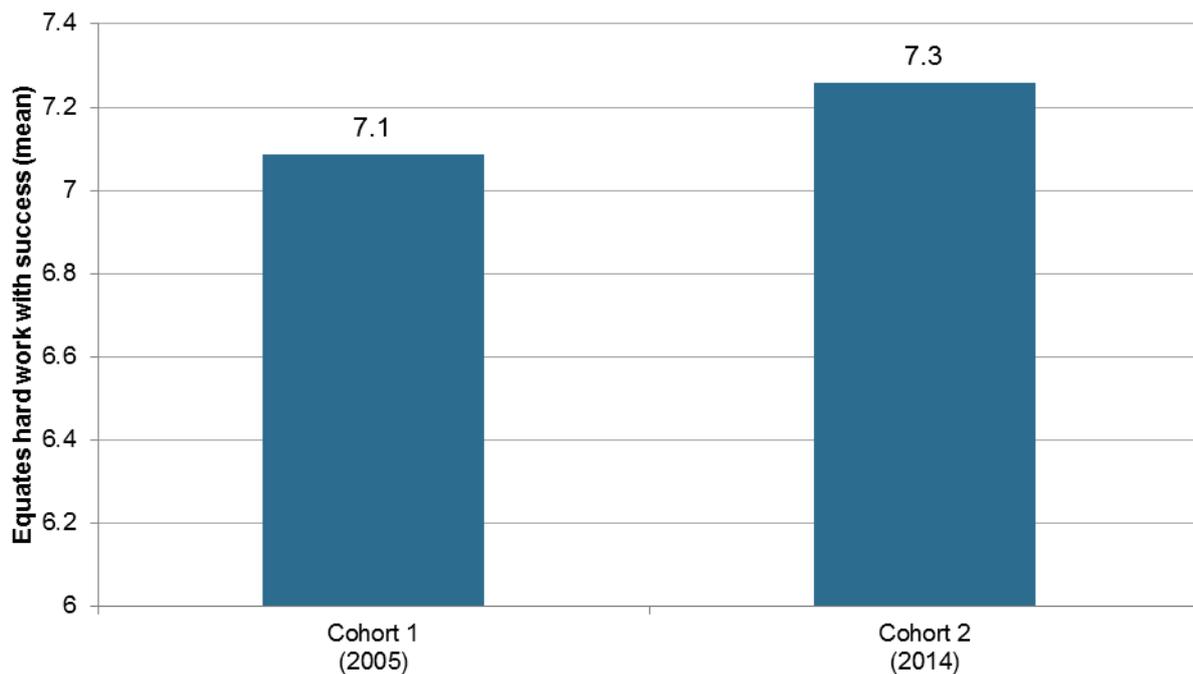
Some young people did not respond to all six of these statements. In cases where one of the statements was missing, we imputed a value based on the responses that were given³⁹. We excluded any cases where more than one statement remained unanswered for each of the sets of items. This simple imputation process allowed us to include a larger proportion of the sample in our analyses.

Change in young people equating hard work with success since 2005 and variation in 2014

In summary, young people were more likely to strongly equate hard work with success in 2014 than had been the case when a snapshot was taken in 2005, as shown in figure 3.13. There were no particularly distinctive changes in the distribution of scores amongst different groups of young people between these two points in time (unlike the large increase observed earlier, for example, in the rise in psychological distress among girls between 2005 and 2014).

³⁹ We imputed values for individuals missing one of the six items using a chained equations (ICE) approach available in STATA

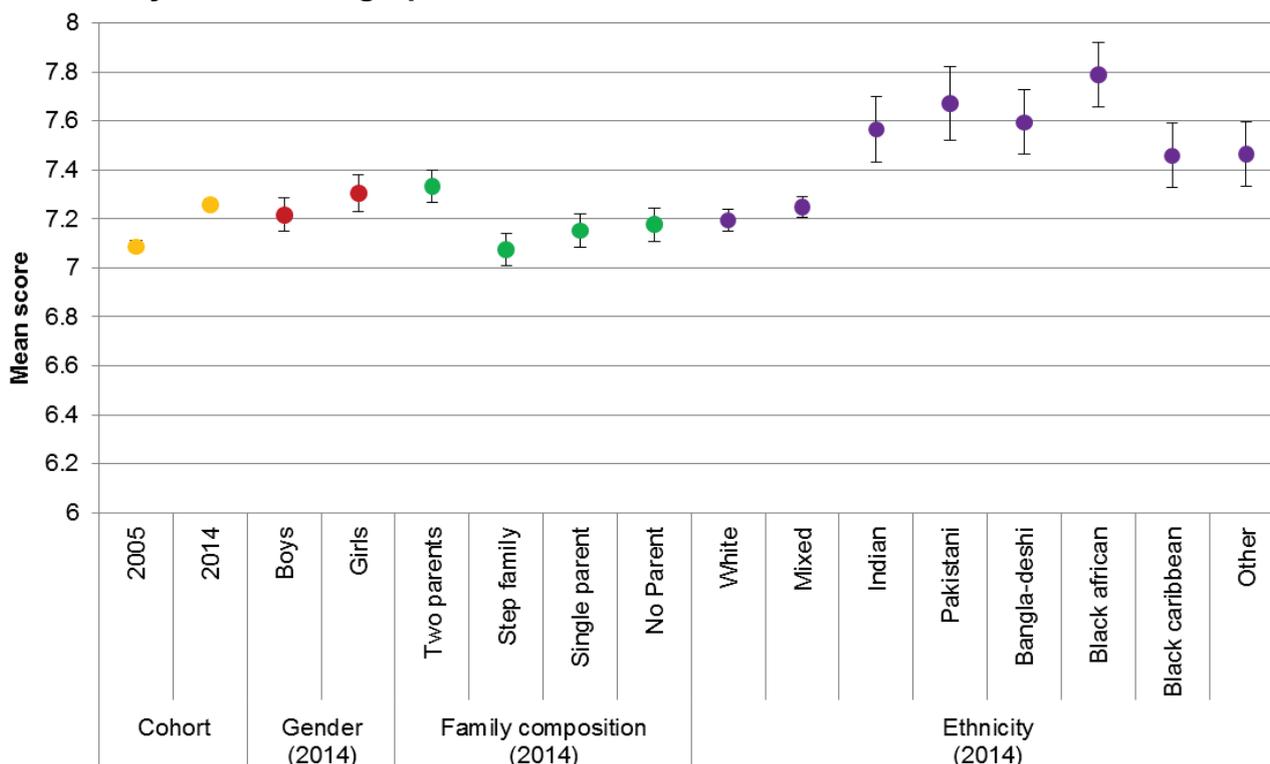
Figure 3.13 A small but significant rise in ‘equates hard work with success’ between 2005 and 2014



Focusing on 2014, in figure 3.14 we see small but statistically significant variations in how strongly young people equated hard work with success among different social groups based on gender, ethnicity, illness or disability, SEN, family composition, parental education, tenure, NS-SEC, school type and region. Most notably, scores are:

- higher for girls
- higher for members of black and minority ethnic groups (and lower for white and mixed groups)
- lower for young people from single parent or reconstituted families
- higher for young people in independent schools (although this may reflect differences in the young people who attend these schools rather than the actions of the school itself)
- lower for young people in special schools and young people with SEN, and
- lower for those living in the North East, Yorkshire, East Midlands, South East and South West.

Figure 3.14 Some variation in how strongly young people equate hard work with success by socio-demographic characteristics



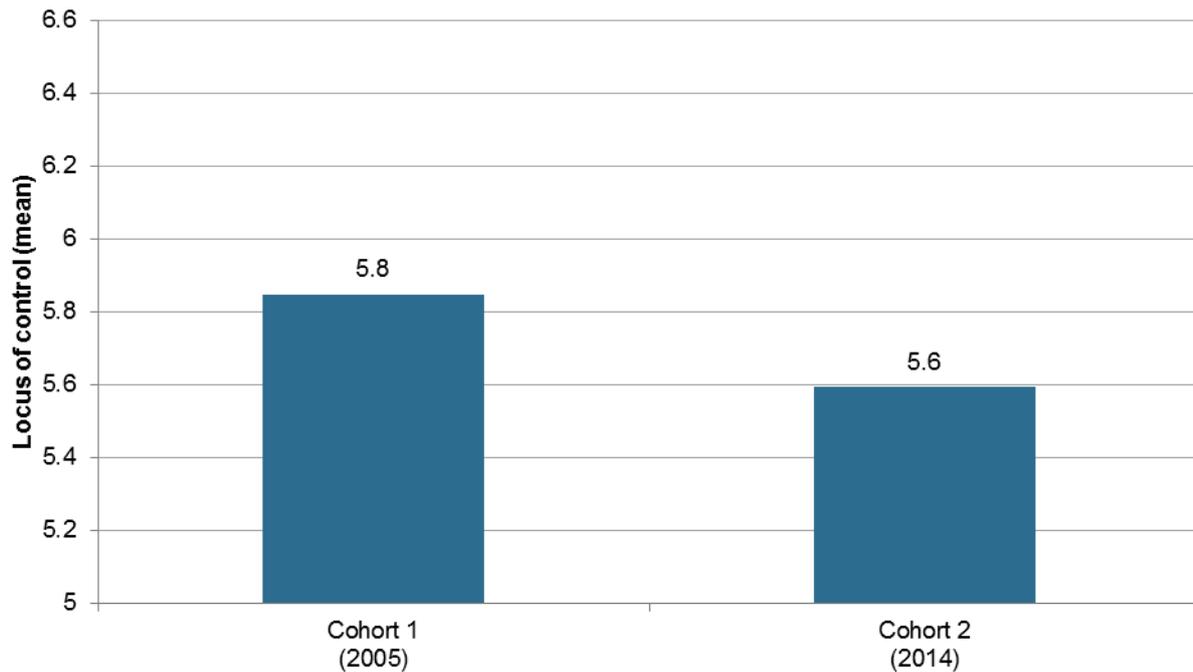
While the size of the differences between sub-groups were relatively small, perhaps the most important finding is that the strength with which young people equate hard work with success falls quite consistently based on socio-economic position, with more advantaged young people perceiving a stronger association than more disadvantaged young people. In general, scores were slightly lower for:

- young people in households with no qualifications (7.2), lower qualifications at GCSE or below (7.1) or GCSEs (7.2), compared to those whose parents' highest qualification is a degree (7.4) and
- those living in rented accommodation (7.2) (council or housing association) compared to those living in a household that is own/mortgaged (7.3).

Change in locus of control since 2005 and variation in 2014

Turning to our other measure, since 2005 there has been a small but significant change in young people's locus of control – the belief they can positively affect the world around them and influence their own destiny. We might have assumed that this would increase as young people more strongly equated hard work with success and their attitudes to school improved. However this is not the case and locus of control has actually fallen slightly, from an average of 5.8 to 5.6 as shown in figure 3.15.

Figure 3.15 A drop in locus of control since 2005



Looking more closely, in 2014 there was a clear social gradient with advantaged groups having greater locus of control:

- if the young person's mother was working (5.7 for both full-time work and for part-time work compared, for example, to 5.5 if the mother was looking after the home or family, or 5.3 if the mother was unemployed)
- if the young person's father was working. Here locus of control is 5.7 if the father was working full-time and 5.5 if he was working part-time compared to 5.2 if the father was looking after the home or family and if the father was unemployed
- if the young person lived in a household where there were higher levels of parental education (5.9 if the highest qualification was at degree level or higher compared to 5.0 if there were none)
- if their household was in a higher NS-SEC group (5.8 for the highest group compared to 5.1 for those who had never worked)
- if they were not on FSM (5.6 for those not on FSM compared to 5.2 for those who were)
- if they did not live in more disadvantaged areas (5.8 for the top IDACI quintile compared to 5.3 for the lowest)
- and/or if they attended an independent school (6.2 compared to 5.5 for LA maintained schools).

Furthermore, locus of control was lower for:

- girls (5.5 compared to 5.7 for boys)
- Bangladeshi (5.1), Pakistani (5.3) and mixed (5.4) compared to white (5.6) and, in particular, for Black African young people (5.8)
- those where illness or disability affected school (5.2 compared to 5.6 for those with no such difficulty) or with SEN (5.0 compared to 5.7)
- young people who were living without any parents (5.1), in single parent families (5.4) or in reconstituted families (5.4) compared to two parent families (5.7)
- young people in sponsored academies (5.4) and special schools (4.9).

There also appears to be a 'schools gradient' according to Ofsted scores, with higher locus of control for young people in outstanding schools (5.7), falling for good (5.5) and requires improvement (5.5) and lowest for inadequate (5.3), but this may at least partly be attributable to the profile of the young people attending these schools rather than because of the school itself.

In summary, alongside the improvement in school attitudes reported in chapter 2, we have seen two related changes. Young people were more likely to strongly equate hard work with success - which seems consistent with other observations about the increasing seriousness of young people (such as more positive school attitudes, higher aspirations and lower levels of truancy). The second relates to a reduction in the level of locus of control. The question this raises is whether young people in the 2014 cohort feel more commitment to working hard to succeed, but less confidence that they will do so. In some ways this would seem to be a rational reaction to the very challenging time in which young people have been growing up. Although the economic situation is now improving, at the time of the survey there had been a long period of low employment and instability for young people of post-school age, and this may well have filtered through to our year 10 respondents (see chapter 1). As such, it might not be surprising if young people felt that they needed to work harder to succeed, yet at the same time were uncertain about whether this would be enough to ensure their future success. In chapter 4, we return to the question of whether this drop in locus of control – and the apparent contradiction between an increase in the strength with which young people equate hard work and success and a fall in locus of control – is linked in any way to the increase in psychological distress seen since 2005. Are those who are feeling more distress those 'paying a price' for better outcomes?

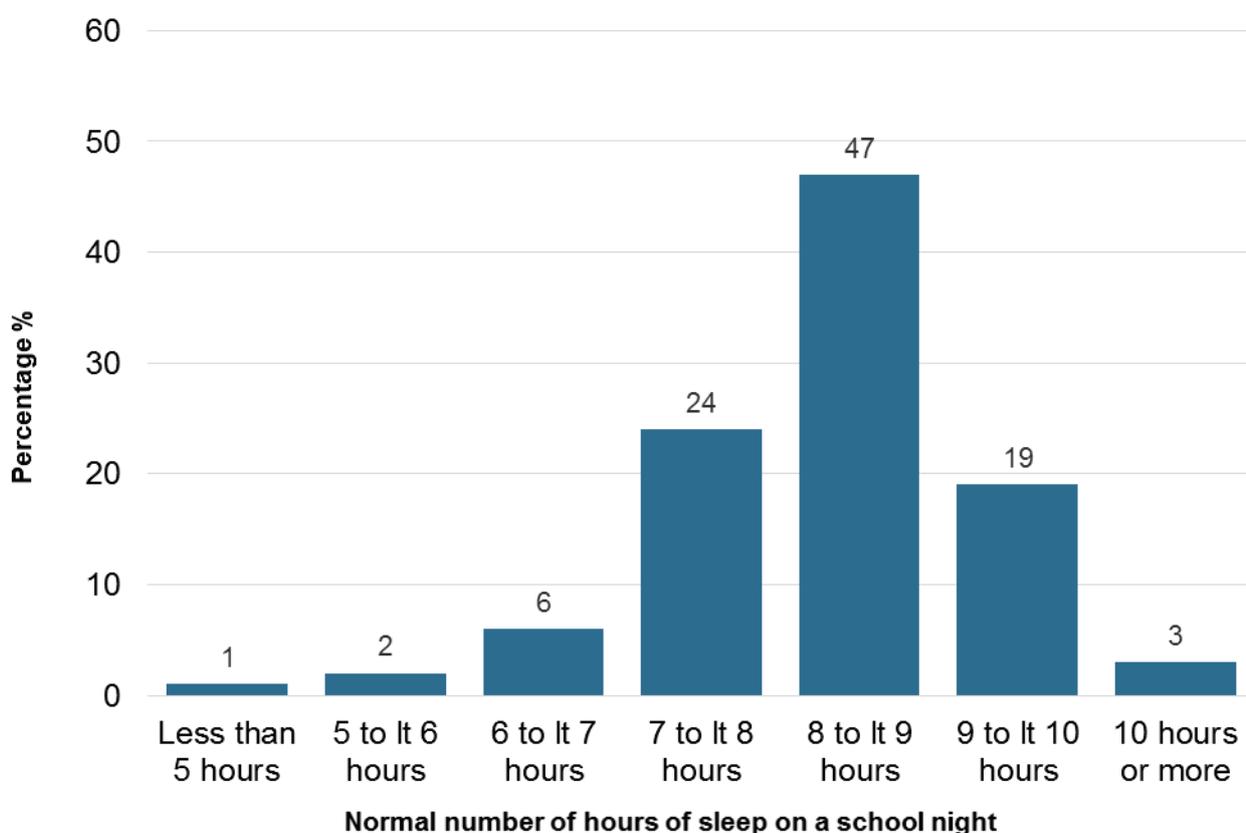
Sleep

An innovation in the LSYPE2 year 10 questionnaire was a set of questions about the young persons' typical sleeping habits during the past month. These questions asked what time the young person normally went to bed, what time they normally went to sleep,

and what time they normally woke up, focusing solely on school nights (that is from Sunday to Thursday). Using this data, we calculated a continuous variable capturing their average amount of sleep on a school night, correcting very unlikely or missing data items where possible. Inevitably averaged self-reports are an approximation, but they provide a useful indication nevertheless.

Figure 3.16 shows that slightly less than half of young people slept for between eight and nine hours on school nights, while around nine-tenths slept for between seven and ten hours. The average across all young people was just over eight hours.

Figure 3.16 The amount of sleep young people report having on school nights



The recommended guidance suggests that young people in this age group should be sleeping for around 9 hours each night⁴⁰. Using this recommendation we constructed a ‘recommended’ band from 8 to 9.5 hours and separated young people into those in this ‘optimal’ group (accounting for 60% of young people) and compared them to those who normally sleep less than this 8 hours (32%) and those who sleep more than 9.5 hours (8%). We then looked at the relationship between sleep and key socio-demographic characteristics.

⁴⁰ <http://www.nhs.uk/Livewell/Childrensleep/Pages/howmuchsleep.aspx>

In the following sections we focus on the two groups outside the 'optimal' range. We concentrate first on young people who sleep less than 8 hours which we describe as 'too little sleep' because they may experience tiredness during the school day or more profound impacts on physical and mental recovery and growth. We then go on to consider 'long-sleepers' who arguably get 'too much' sleep.

Sleep patterns are a complex topic and would merit further detailed analysis using the LSYPE datasets. There are many factors that potentially contribute to sleeping irregularities and the impact of sleep patterns on wellbeing and health is a potentially fascinating topic. Longer periods spent sleeping may reflect a more relaxed household environment, with fewer pressures to study or socialise late at night. On the other hand, it is also possible that sleeping for long periods may have negative consequences, and could be associated with disengagement or despondency, with potential knock-on effects on schooling.

To be clear, we have not examined any of these possibilities in depth, but are simply setting out patterns which point to some of the opportunities that the LSYPE data offers. Since, the relationship between sleep and mental health is not fully understood, with the relationship likely to run in both directions, this would benefit from some expert involvement of sleep researchers. It is also important to note that because this is the first time these questions have been asked, it is not possible to compare the amount of sleep young people report, either with their counterparts in 2005 or their younger selves in the year 9 survey in 2013, though the richness of the data will, of course, increase as we complete later waves of interviewing.

Many sub-groups of young people comprised high proportions that slept less than 8 hours on a school night as well as high proportions who slept for more than the recommended amount. Examining average levels of sleep would conceal these complex patterns so we report instead on those having too little sleep, followed by those having too much sleep.

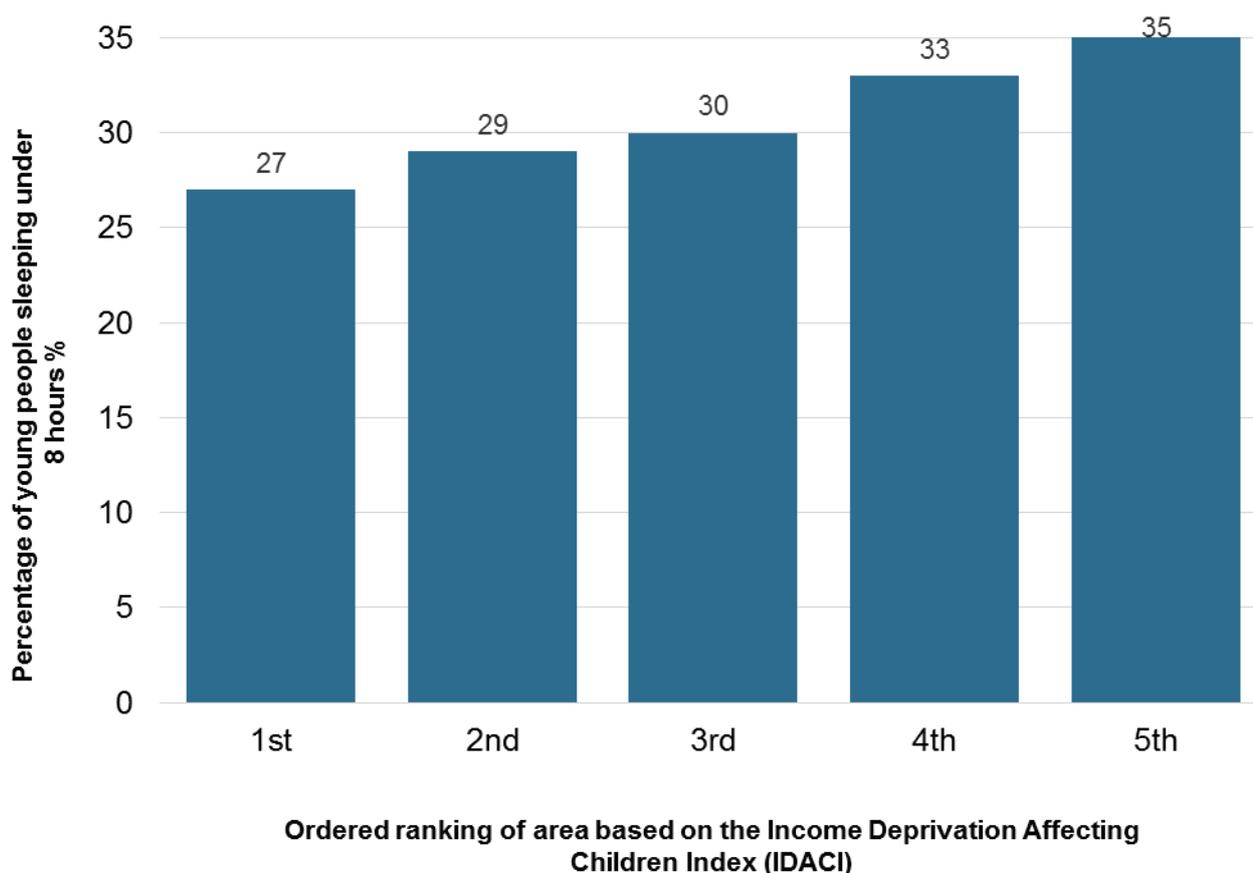
Focusing firstly on those sleeping less than the recommended hours, we found a number of trends which hint at a complex underlying picture. To contextualise the following data, under a third (32%) of young people in year 10 said they slept for less than 8 hours a night:

- Approximately a third of girls (33%) slept for less than 8 hours compared to 29% of boys.
- Family composition also mattered. A higher proportion of young people in single parent families and reconstituted families reported sleeping less than 8 hours (34%) than young people living in a household with two parents (29%).
- There was a noticeably larger group of young people in specific ethnic minority groups sleeping for less than 8 hours, particularly young people from an 'other' ethnic group (43%), followed by young people from a mixed (41%), Black

Caribbean (40%) or Black African (36%) background. This compares to 30% of young people who are white.

- There was also evidence of a link between having less than 8 hours of sleep and socio-economic disadvantage. In comparison with a mother or father who worked full-time, higher percentages of young people slept fewer than 8 hours where the mother was unemployed (42%) or where the father (38%) was classified as 'other' which included fathers who were sick or disabled.
- At the same time, young people whose mother worked part-time were *less* likely to sleep less than 8 hours on a school night than those whose mother worked full-time (29% compared to 33%).
- A social gradient can also be seen where young people in owner occupied or mortgaged households slept more than renters – between 35% and 36% of young people who live in rented accommodation of different types slept less than 8 hours compared to 29% of young people living in mortgaged or owned homes.
- Perhaps one of the most interesting observations is the link between young people sleeping less than 8 hours and geographical area. Those in urban areas slept less than those in rural areas with over 32% of young people in urban areas sleeping less than 8 hours compared to 27% of those in rural areas. However, the most noticeable difference is that young people in London sleep less than in all other regions. Almost 39% of young people in London slept for less than 8 hours, compared to approximately 32% in the North East (the next highest region) and 28% in the South West (the region with the lowest incidence of sleeping less than the recommended time).
- Differences by level of area deprivation differences are clearly illustrated by the gradient in the proportion of young people who sleep less than 8 hours (see figure 3.17). For example, those living in the 4th and 5th IDACI quintiles sleep less than those in other groups with 33% of those in the 4th IDACI quintile and 35% of those in the fifth IDACI quintile sleeping less than 8 hours compared to only 27% in the first IDACI quintile.

Figure 3.17 IDACI quintile variations in sleep – under 8 hours



Sleeping, on average, more than 9.5 hours a night

There are some interesting differences in sleeping long hours (that is, more than 9.5 hours a night) by socio-demographic group, with three possible patterns emerging. To contextualise the following findings, 8% of all young people in year 10 slept more than 9.5 hours on average.

- The group with the highest proportion of long sleepers (though based on small sample sizes) consisted of those who went to a special school (28%). There was also a relatively high proportion of long sleepers among young people whose illness or disability affected their schooling (14%) or who were SEN (12%). These findings might suggest that some young people are long sleepers because of a physical or personal requirement.
- Being a long-sleeper may also be cultural. Two ethnic minority groups showed a significantly elevated proportion of long-sleepers; these were Pakistani and Black African young people with 16% and 10% long sleepers respectively.
- Having a parent who looked after the home or family was also important with relatively high proportions of long sleepers among young people whose mothers or

fathers described themselves in this way (11%) or who described themselves as 'other' which includes sick, disabled or retired (10%).

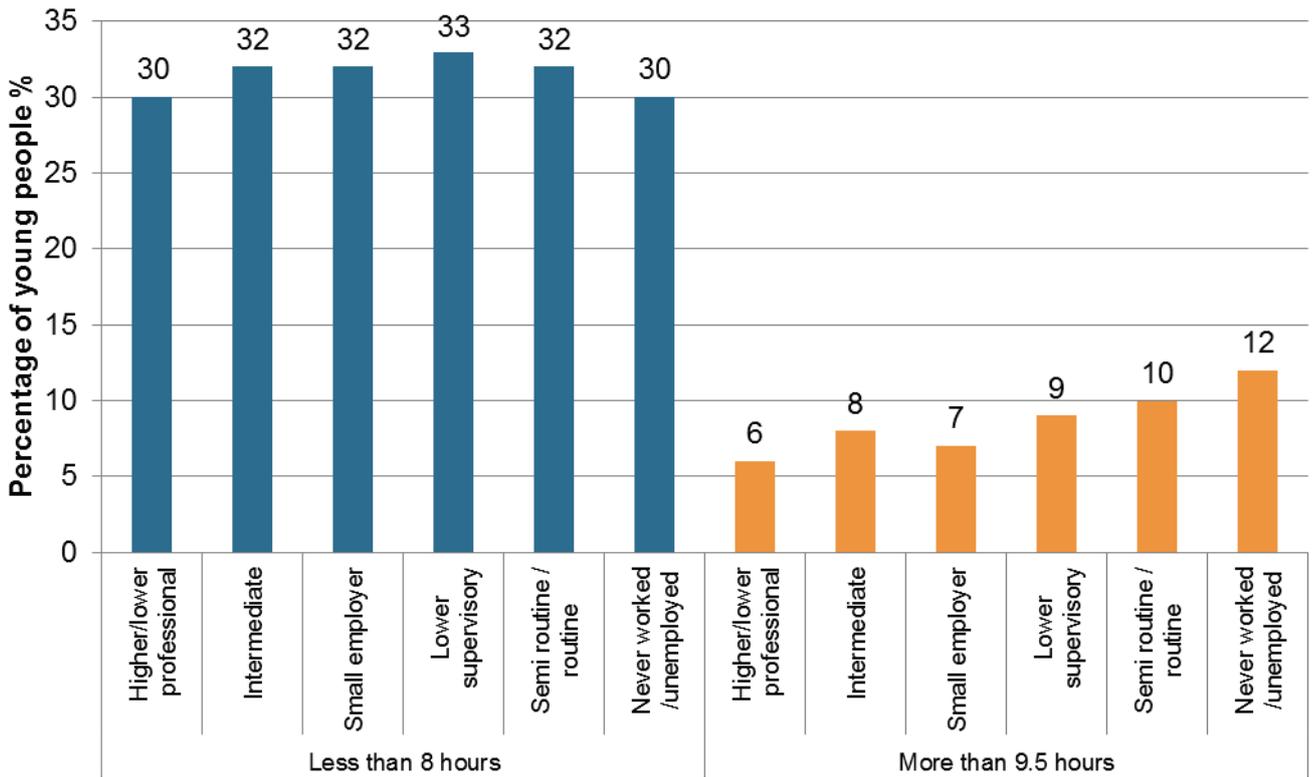
- Finally, there also appeared to be a connection between long sleepers and disadvantage in terms of lower social class, in particular an absence of employed parents and relatively low parental qualifications. For example, there were slightly higher proportions of long sleepers among young people who were living in a household where no parent-figure was working (11%) or only one was working (8%) compared to when two parents were working (6%). Also, with the exception of young people from households where the NS-SEC groups was 'small employers' all lower NS-SEC groups had higher proportions of long sleepers than those in the 'managerial and professional' group. Similarly there were more long sleepers among young people whose mothers had no qualifications or qualifications lower than GCSEs (11% and 10% respectively).. Finally, compared with young people living in a home that the family owned or had a mortgage long sleepers were more frequent where the young person was living in a home rented from a council or new town (10%), from a Housing Association (9%) or from the private sector (8%).

Complex patterns – both short sleepers and long sleepers

Finally, we return to the issue raised earlier – that the average duration of sleep for any social group may be deceptive.

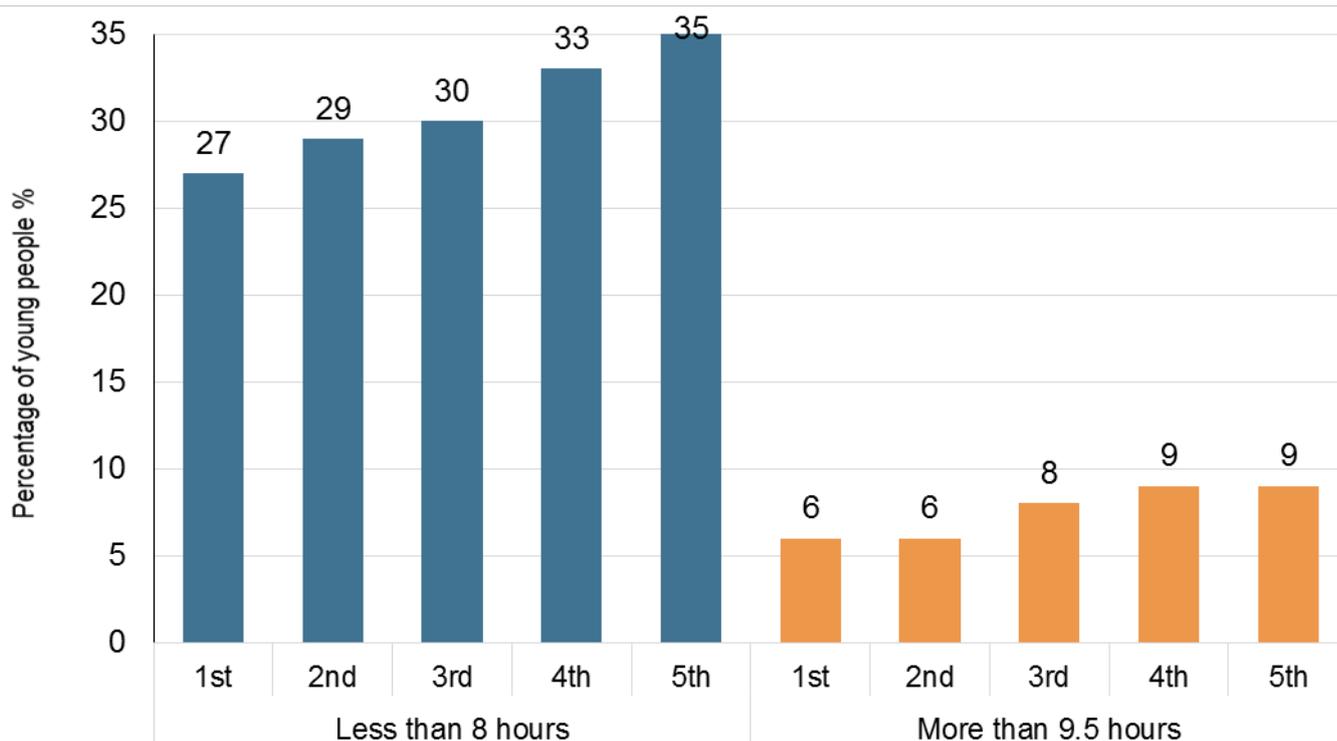
Overall, the mean duration of sleep for young people is very similar across NS-SEC groups. However, young people living in the highest socio-economic group were much more likely to sleep an optimal number of hours (64%) than those in the lowest NS-SEC group (59%). A more detailed examination shows that this difference is driven largely by the greater proportion of long-sleepers in the lowest social class (12% compared to 6%) as illustrated in figure 3.18.

Figure 3.18 The social gradient in amount of sleep – under 8 hours and over 9.5 hours



That said, the example below shows more clearly that there can be a strong effect at both ends of the spectrum. If we return to the IDACI differences we observed in figure 3.17, we can see that IDACI is particularly associated with short-sleepers but also affects long-sleepers, with significantly more in the third, fourth and fifth quintiles sleeping both more and less than those in the first. In other words, to some extent there is a social gradient in both.

Figure 3.19 IDACI quintile variations in sleep –under 8 hours and over 9.5 hours



Risky behaviours

The final area of wellbeing that we focus on in this chapter is young people's engagement in risky behaviours. From one perspective, behaviours such as smoking, drinking, taking drugs, vandalising property or getting into fights can be seen as problematic because they are, at best, an adolescent nuisance and, when repeated or in combination, affect communities and damage public order. Risky behaviours also do harm to young people themselves. Some carry intrinsic risk (for example, smoking and drinking will damage the young person's health) and some have concomitant risks, for example, if theft or vandalism lead to school suspension or early entry into the criminal justice system. Looked at in a different light, risky behaviours can also be seen as manifestations of a young person's disengagement or dislocation from the norm – and as expressions of distress. Although other interpretations of risky behaviours are important, it is this perspective that provides the main rationale for including risky behaviours here. Indeed, the literature suggests that measuring 'externalising' activities of this kind will identify some troubled teenagers who are not identified as psychologically distressed on scales like GHQ-12 and who do not report their own health as not very good or not good at all, but who nevertheless may still have poor wellbeing.

Unlike the other measures described in this chapter, questions about risky behaviours were also included in the year 9 survey and were reported on quite extensively by Baker et al (2014). As a result, we only touch on these issues, but are now able to provide

some comparisons between the responses from young people in year 9 and those in year 10.

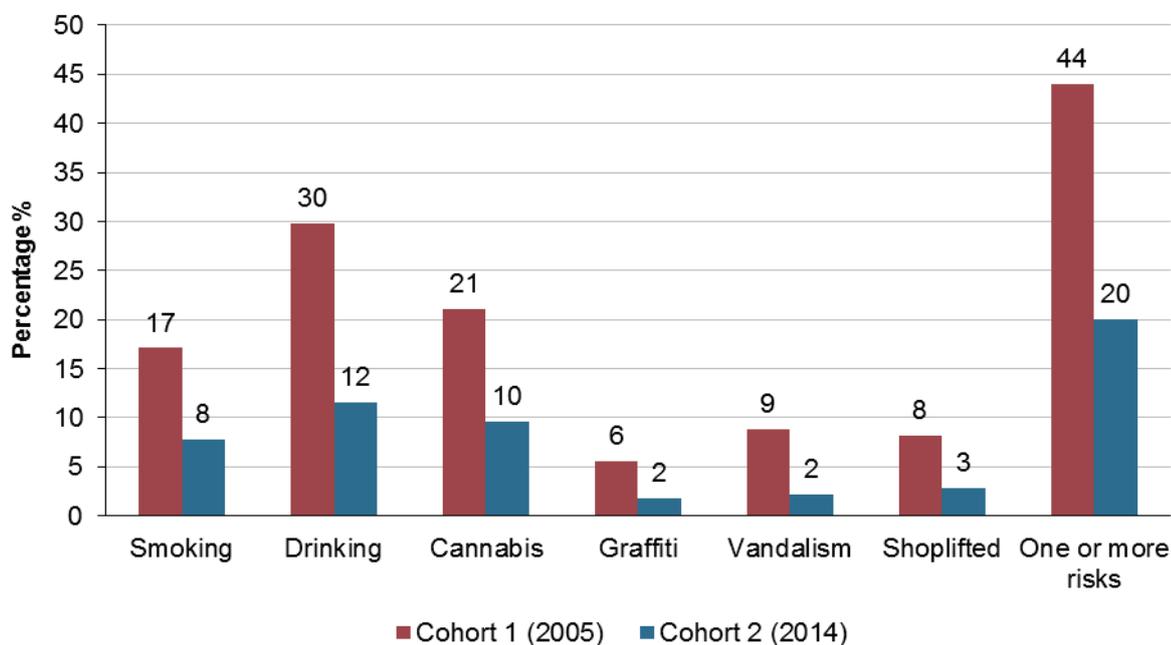
In both cohorts, and in both year 9 and 10, young people were asked about drinking, smoking, cannabis use, graffiti, vandalism, shop-lifting and fighting. For the purpose of this analysis we identified these behaviours in the following ways:

- Young people who reported drinking alcohol two to three times a month or more frequently were counted as undertaking this behaviour. The evidence we have needs to be interpreted with caution when comparing across cohorts because the questions used to ask about alcohol changed⁴¹. Furthermore, drinking is more frequent among more advantaged young people and somewhat confuses the general trends we see with risk taking. As a result, when we constructed a measure of risky behaviour we created versions with and without alcohol.
- Young people who currently smoked cigarettes were treated as undertaking the risky behaviour but we excluded those who had only tried smoking or who had smoked but given up. We did include young people who sometimes smoked, even if it was less frequently than once a week or if they said they smoked but did not report on how frequently.
- Young people who had ever tried cannabis were treated as undertaking the risky behaviour.
- Young people who were classified as having graffitied were those who had sprayed paint on a building, fence or train “or anywhere else they shouldn’t have”.
- Young people who had carried out vandalism were those who had “damaged anything in a public place, for example burning breaking or smashing things like cars, bus shelters or rubbish bins”.
- Young people were treated as having shoplifted if they had “ever taken something from a shop, supermarket, or department store without paying”.
- Young people were also asked about fighting. In cohort 1 the questions were more general and could have included some young people who had taken part in a public disturbance, including a demonstration. In cohort 2 they were made more explicit, asking if they had ever hit or attacked someone on purpose with or without an object or weapon. As a result, questions about fighting were not included in the final summary measure reported next.

⁴¹ In the first cohort, when young people who said they had drunk alcohol in the last 12 months were asked about frequency of drinking, the first options they were given were most days, followed by once or twice a week, two or three times a month and so on. In the second cohort the order was reversed, with the possible implication that not drinking frequently was normative. This may lead to some inconsistency.

- Figure 3.20 shows the proportion of young people who undertook each of these risky behaviours dropped substantially between 2005 and 2014, although, as mentioned, the decline in drinking could partly reflect differences in how the questions were asked. The general trend for sharp decreases in all other measures cannot, however, simply be explained in this way and there clearly has been a fundamental change in behaviour. Our strong assumption is therefore that drinking behaviours have also genuinely decreased to some extent, even if the shift is not as pronounced as it may appear at face value. The final bars in figure 3.20 show that – including alcohol – 44% of young people reported one or more of these risky behaviours in 2005, and this had fallen to 20% in 2014. The drop in risky behaviours is still pronounced even if we exclude alcohol – from 32% in 2005 to 14% in 2014.

Figure 3.20 A fall in risky behaviours between 2005 and 2014



To some extent, these findings simply replicate those from the year 9 report (Baker et al, 2014). However this analysis shows, additionally, that the more conservative behaviours of year 9 students in 2014 have persisted into year 10.

Trends in who was most likely to undertake risky behaviours were also consistent over time. Risky behaviours were **higher** (in this case, when excluding alcohol) for

- boys
- young people from white and mixed ethnic groups
- young people whose mother or father was unemployed
- young people with SEN
- young people in single parent, reconstituted families or with no parents
- those who live in households where there are low or no parental qualifications
- young people living in the rental sector
- those on FSM or living in more disadvantaged areas (specifically the fourth lowest IDACI quintile) and
- those going to schools in sponsored mainstream academies and special schools.

Risky behaviours were **lower** for

- girls
- young people attending independent schools
- young people from most ethnic minorities (but not Black Caribbean)
- young people with an illness or disability that affects their school.

Summary

In summary, the evidence in this chapter has built on that presented in chapter 2. It has shown that as well as improvements in young people's engagement with school and education, the trend towards lower levels of risky behaviours has continued since wave 1.

Alongside the improvements in young people's wellbeing within the school context that was reported in chapter 2, there are two changes in important traits

- an increase in pre-work focus but
- a reduction in locus of control.

At the same time, two key measures of wellbeing are worse now than they were in 2005:

- Despite a small increase in those who say their health is very good, there has been a rise in those who say their health is 'not very good' or 'not good at all'.
- Amongst girls in particular there has been an increase in the average level of psychological distress and an increase in the proportion who are psychologically distressed (that is, above the caseness threshold).

These changes come against the background of rapid societal change and challenging economic conditions outlined in chapter 1.

In chapter 4 we look at whether these patterns can be explained by young people feeling more distress because they are 'paying a price' for a more serious and focused attitude to school. However we will not know what the longer term outcomes of these changes are until we have future waves of LSYPE2. Will these same young people have better long-term outcomes despite experiencing more distress along the way, or are the higher levels of self-reported ill health and psychological distress building up harm and presenting a growing challenge for the future?

Chapter 4 Further exploration of wellbeing and distress

Chapter Summary

Chapter 4 explores aspects of the health and wellbeing of young people in more depth. This provides additional insights and serves to further illustrate the potential of the LSYPE data set and the opportunity for further analysis.

- We examined the correlation between different measures of wellbeing. Young people who reported higher levels of psychological distress were also likely to report their overall health as poor. Young people who had a lower locus of control and were less likely to equate hard work with success had worse self-reported health and higher levels of psychological distress. Young people with worse self-reported health and psychological distress were more likely to engage in risky behaviours. The opposite of all of these statements is also true i.e. **better health is associated with more strongly equating hard work with success, higher locus of control and fewer risky behaviours.**
- In chapter 3 we saw that there has been an increase in the proportion of young people with a low locus of control. There was also **an increase in the proportion of young people who strongly equated hard work with success but had a low locus of control**, that is, young people who appreciated the importance of working hard to succeed but felt they had little control over their own outcomes. This may be related to the difficult economic climate for young people entering the workforce and will be worth monitoring in the future.
- In chapter 3 we saw that young people were more likely to value and strongly equate hard work with success and that they were also more likely to have higher levels of psychological distress suggesting that young people may be paying a psychological penalty for being more serious than their counterparts in 2005. However, a small to medium *negative* correlation between psychological distress and 'equates hard work with success' (-0.18) argues against this hypothesis. In general, **young people who more strongly associated hard work with success tended to experience lower levels of distress**, although the correlation was not especially large. However, where young people also had a low locus of control, their level of psychological distress was higher.

- Using more sophisticated analysis, we re-examined the impact that the range of socio-demographic factors examined in chapter 3 had on levels of psychological distress to get a better understanding of the unique contribution of each. The **effect of gender remained the largest consistent effect**, with girls scoring an average of 4 points higher than boys. The negative impact of having an illness or disability that affects schooling and/or living in a step or single parent family increased. The influence of some factors reduced (ethnicity, parental education, socio-economic class, and region) and others disappeared altogether (mother's main activity, tenure, eligibility for FSM and attending an independent school). **Highest parental qualification had the largest impact on psychological distress of all the social position measures.** This best captured the phenomenon noted in chapter 3 that more advantaged young people experience slightly higher levels of distress on average than their more disadvantaged peers.
- In the final section of this chapter we examine whether certain factors 'mediate' this relationship between parental education and psychological distress. Factors which capture the idea of 'parent push' are not as helpful as expected in explaining why young people in better educated households experience higher levels of psychological distress, while factors related to 'personal drive' are more so. **In combination, 'parent push' and 'personal drive' explain about one-third of the gradient.** Interestingly, having peers who support academic success appears to protect against psychological distress. Were this not the case, the association between parental education and psychological distress would have been stronger.

In this chapter, we explore some of the questions raised in earlier chapters in a little more depth. With three short examples, we show how more complex analytical methods can be applied to LSYPE which further demonstrates the study's enormous potential as a tool for investigating the drivers of young people's health and wellbeing and their trajectories for the future.

- In the first section we revisit the range of wellbeing measures set out in chapter 3 and consider how each measure relates to the others. This allows us to consider, for example, whether the increase in psychological distress seen in 2014 (and discussed in chapter 3) might be a consequence of them being more likely to value and strongly equate working hard with success. In other words, is this generation of young people paying a psychological 'penalty' for adopting a more hardworking approach to school?
- In the second section we focus on average levels of psychological distress, here using multivariate logistic regression to identify the key drivers for high GHQ-12 scores. This enables us to establish the unique contribution of each of the characteristics described in chapter 3 to young people's overall levels of mental health.

- Finally we explore further one of the persistent relationships observed in our analysis – the relationship between psychological distress and advantage. We try to understand the mechanisms through which advantage might drive higher levels of psychological distress by examining three possible mediators of the relationship between parental education and psychological distress – parental push, personal drive and peer pressure.

The relationship between different measures of wellbeing

In chapter 3, we described the health and wellbeing of young people in England using a broad range of measures intended to capture different aspects of young people's lives. These included self-reported health, psychological distress, whether they equate hard work with success, locus of control, amount of sleep on a school night, and risky behaviours (including drinking alcohol). Some of these (such as self-reported health and psychological distress) can be seen as direct measures of health and wellbeing, while others (such as sleep and 'equates hard work with success') are indirect, but help paint a broader picture of the 'whole child'.

Our prior assumption was that young people who have poorer wellbeing on one measure were also likely to demonstrate poorer wellbeing on others. Understanding how far this is the case is important when identifying appropriate policy responses. If, for example, most of the young people who engaged in risky behaviours were also those who reported higher levels of psychological distress then the set of actions needed may be different to what might be proposed if quite different groups are affected. In this case attending to any mental health issues would, perhaps, be a prerequisite to dealing with their problematic behaviours.

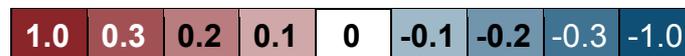
Table 4.1 shows the level of association (or correlation) between each of our wellbeing measures for year 10 students in 2014. Please note that we consider two measures of risky behaviour - one that includes fighting and one which doesn't (the latter was used to compare levels of risky behaviour across cohorts and was necessary due to changes in question wording over time).

Correlations are measured on a scale of -1 to 1, where 1 indicates a perfect positive correlation and tells us that an increase in one measure is matched by an equivalent increase in the other. Similarly, -1 indicates a perfect negative correlation which means that an increase in one measure is matched by an equivalent decrease in the other. The closer the correlation is to zero, the weaker the relationship between the two measures. It is worth noting that a degree of measurement error will always exist, meaning that it is unlikely that we would identify a perfect correlation (whether positive or negative) between two measures. As a rule of thumb, a correlation of 0.1 is considered small, a correlation of 0.3 is considered medium and a correlation of 0.5 or higher is considered large. The colours in table 4.1 are red for a positive correlation and blue for a negative

correlation, with the hue signifying the strength of the correlation. The black cells simply show the central spine of the correlation matrix.

Table 4.1 Correlation of different measures of wellbeing in 2014 (cohort 2) ⁴²

Cohort 2	Self-reported health	GHQ-12 Likert	Sleep	Equates hard work with success	Locus of control	Risky behaviours 1	Risky behaviours 2
Self-reported health	n/a	0.39	-0.19	-0.19	-0.19	0.20	0.19
GHQ-12 Likert	0.39	n/a	-0.18	-0.18	-0.25	0.21	0.22
Sleep	-0.19	-0.18	n/a	0.08	0.08	-0.18	-0.18
Equates hard work with success	-0.19	-0.18	0.08	n/a	0.32	-0.21	-0.21
Locus of control	-0.19	-0.25	0.08	0.32	n/a	-0.19	0.18
Risky behaviours 1	0.20	0.20	-0.18	-0.21	-0.19	n/a	n/a
Risky behaviours 2	0.19	0.22	-0.18	-0.21	-0.18	n/a	n/a



The correlation between psychological distress and self-reported health (a medium to large correlation of 0.39) shows that there is considerable overlap between these two measures of health and wellbeing. For many, having poor self-reported health was also

⁴² We used the correlation statistic (Pearson's, polyserial, or polychoric) that was appropriate for the level of measurement (interval, ordinal or count) of each pair of measures examined

associated with having poor psychological health and vice-versa. It should be borne in mind that self-reported health also captures both physical and psychological health; when asked “In the last 12 months would you say your health has been very good, fairly good, not very good or not good at all?”, individuals tend to consider their global health, which includes how they feel mentally.

The influence of equating hard work with success and locus of control

In table 4.1 we also see a relationship of medium strength between ‘equates hard work with success’ and locus of control (with a medium correlation of 0.32). In other words, young people who expressed a belief in the importance of working hard at school and equated this with being successful also tended to believe they could positively affect their own outcomes⁴³.

When considering this observation it is important to remember that correlation does not indicate causality. It is just as plausible that a young person who feels unable to shape the world around them will feel less inclined to commit to working hard and doing well at school, as it is for a young person who commits to working hard and doing well at school to consequently feel more empowerment over their lives. We cannot determine here which of these better describes the underlying relationship or whether they both stem from another underlying cause such as higher self-esteem.

A particularly significant finding is a small to medium *negative* correlation between psychological distress and ‘equates hard work with success’ (-0.18). This is relevant given evidence presented earlier about changes in young people’s wellbeing between 2005 and 2014. In our earlier analysis we showed that, on the whole, young people in 2014 had better attitudes to school (chapter 2), were more likely to strongly equate hard work with success and had a higher likelihood of aspiring to go to university (chapter 3). This suggests a more studious young person with a greater commitment to education. On the other hand there is evidence that young people were, on average, a little worse in terms of their psychological wellbeing. One plausible explanation is that young people may be paying a psychological penalty for being more focused on working hard and doing well than they were previously. However, the negative correlation between ‘equates hard work with success’ and psychological distress (-0.18) would appear to discount this theory. It shows that young people who strongly associated hard work with success also tended to have lower levels of psychological distress on average. Given that the correlation is not especially large, it is likely that some young people will have both a high score for ‘equates hard work with success’ as well as high levels of

⁴³ Further details of the derivation of ‘Equates hard work with success’ and locus of control can be found in chapter 3.

psychological distress, which would be a group useful to understand further. On average, however, the data suggest that a 'penalty' hypothesis looks implausible.

Again looking at table 4.1, young people who felt a greater level of psychological distress were also likely to have a lower locus of control (with a medium correlation of 0.25) and the corollary – those with a higher degree of locus of control had better psychological wellbeing. Again, it is important to remember that this relationship might operate in either direction – those who do not feel empowered may as a consequence feel a higher level of distress when faced with difficult circumstances. Alternatively, psychological distress may knock a young person's confidence in their ability to shape their own world.

Another hypothesis that we are able to examine here was that young people in year 10 in 2014 might be driven to be more focused, studious and hard working as a consequence of the economic crisis and the corresponding challenges in the jobs market. This could relate to the young person's sense of their own job prospects or reflect a loss of confidence if their parents' employment or income has been affected. As a consequence of these contextual events, young people may feel less able to affect the world around them despite their own concerted efforts. Furthermore, such an environment, in which young people felt compelled to work hard whilst still doubting whether this would be enough to ensure their future success, might prove particularly harmful to their mental health.

To examine this hypothesis we first explored the increase in the proportion of young people with different combinations of 'equates hard work with success' and locus of control (e.g. low 'equates hard work with success' + low locus of control; high 'equates hard work with success' + low locus of control). In total nine combinations were identified (high, medium, or low 'equates hard work with success' by high, medium, or low locus of control). The proportion of young people falling into each of these groups in 2014 is shown in table 4.2, while the increase (or decrease) in the prevalence of each combination between 2005 and 2014 is presented in table 4.3. Despite evidence of a positive correlation between equating hard work with success and locus of control, there was a significant increase in young people with who strongly equated hard work with success yet had a low locus of control. Around one in seven (15%) young people fell into this group in 2014 and the size of the group increased by 28% between 2005 and 2014. This increase was greater than for any other group, supporting the first part of our hypothesis outlined earlier - in practice, there has been an increase in the number of young people who believe in the benefits of working hard but doubt the extent to which they can influence their future success.

There were other significant changes, perhaps most noticeably a marked decline of 44% in the proportion of young people who believed that it was possible to control their own outcomes without believing in the importance of hard work to achieve their success (i.e. high locus of control with 'equates hard work with success') and this group only accounted for 4% of all young people in 2014.

Table 4.2 Proportion of young people with varying levels of ‘equates hard work with success’ and locus of control in 2014

Proportion of year 10 students in 2014		Locus of control		
		Low	Medium	High
‘Equates hard work with success’	Low	21%	8%	4%
	Medium	10%	6%	5%
	High	15%	12%	20%

Table 4.3 Change in the size of groups with different combinations of ‘equates hard work with success’ and locus of control between 2005 and 2014

Change in size of group from 2005 to 2014		Locus of control		
		Low	Medium	High
‘Equates hard work with success’	Low	+15%	-30%	-44%
	Medium	+22%	-6%	-31%
	High	+28%	+26%	-3%

We also further investigated the relationship between equating hard work with success, locus of control and psychological distress. The relative differences in GHQ-12 scores are set out in table 4.4. This shows that young people who were most likely to strongly equate hard work with success yet had a low locus of control also had higher levels of psychological distress than average (higher by 2.3 than those with both high ‘equates hard work with success’ and locus of control – the reference group), although this was

lower than among those who were least likely to equate hard work with success and had a low locus of control (4.1) and those who had medium 'equates hard work with success' and low locus of control (3.8).

Table 4.4 Relative differences in GHQ-12 scores for young people with varying levels of 'equates hard work with success' and locus of control in 2014

Proportion of year 10 students in 2014		Locus of control		
		Low	Medium	High
'Equates hard work with success'	Low	4.11	1.71	0.94
	Medium	3.81	1.75	0.70
	High	2.29	0.81	Ref

Returning to table 4.1, there was also a small to medium correlation between locus of control and self-reported health (-0.19), showing that if a young person had greater confidence in their ability to shape their own world they were less likely to report poor health. This could, as noted earlier, reflect the fact that self-reported health is a global measure which captures both psychological and physical health.

Relationships between other wellbeing metrics

Psychological distress was also correlated with young people's engagement in risky behaviours, although the strength of the relationship, as with many of those seen here, was small to medium in size (0.21 or 0.22, depending on the chosen definition of 'risky behaviour'). This means that for some (but certainly not all) young people, engaging in risky behaviours was associated with worse psychological distress. A number of pathways from one to the other could explain why this might be the case. Perhaps the circumstances of a young person's life might lead them to feel both psychologically distressed and promote their engagement in risky behaviours – they both act out and suffer psychologically. However, the relationship between risky behaviours and psychological distress could also be more direct. For example, some young people who smoke cannabis might experience side effects that promote higher levels of psychological distress. Similarly, some young people who feel psychologically distressed might self-medicate by drinking, or smoking cigarettes or cannabis. Although we can

hypothesise about these kinds of relationships, more detailed investigation would be needed in order to draw any firm conclusions.

Perhaps unsurprisingly, there was a negative correlation between equating hard work with success and risky behaviours (-0.21 regardless of which risky behaviour definition was used), and between locus of control and risky behaviours (-0.18 to -0.19). In other words, young people who expressed a belief in the benefit of working hard at school or equated hard work with success were less likely to engage in risky behaviours which could harm them. Similarly, young people who believed that they could control their own outcomes were less likely to undertake such potentially harmful behaviours. Small to medium correlations also existed between self-reported health and locus of control (-0.19), and between self-reported health and engagement in risky behaviours (0.19 to 0.20).

In chapter 3, we examined newly available data about the average amount of sleep young people in year 10 reported having on school nights. There is a small to medium negative correlation between sleep and levels of psychological distress measured by GHQ-12 (-0.18) suggesting that having more sleep is associated with lower levels of psychological distress and (the corollary) having less sleep is, on average, associated with higher levels of psychological distress. Again, it is quite plausible that this association could operate in either (or both) directions. For example, having too little sleep may contribute to poor mental health, but alternatively having higher levels of psychological distress may make it difficult to sleep. A similar pattern is evident with self-reported health (-0.19). There were also small to medium correlations between sleep and risky behaviours (-0.17 to -0.18) with too little sleep appearing to be more important than too much sleep.

It is important to remember that these correlations range from medium to small.⁴⁴ This shows that while all our measures of wellbeing are related to one another, as we might expect, they are also independent of one another to a significant degree. This underlines the complexity of understanding wellbeing and the importance of not focusing solely on a single metric when considering the wellbeing of young people but rather considering the ‘whole child’.

Exploring the drivers of psychological distress

In chapter 3 we present a very broad overview – showing changes in young people’s health and wellbeing across a nine year period and identifying how this varied according

⁴⁴ For completeness, we also examined the correlations of these measures in 2005 and compared them to those in 2014. In general, the associations between the measures increased slightly over time with the biggest increases between locus of control and each of the other wellbeing variables. Since none of the findings are particularly notable – at least without further investigation – these are reported in annex C.

to the personal characteristics of the young person and the contexts in which they grew up. Furthermore, in the first section of this chapter we explored how each of these measures of wellbeing related to the others.

By using more sophisticated analysis techniques, we were able to examine the unique contribution of each factor to young people's health and wellbeing after adjusting for other characteristics that we examined, the results of which are presented in table 4.5.⁴⁵ In time, it would be valuable to explore this for all the measures of wellbeing, but here we concentrate on factors which explain young people's levels of psychological distress measured using the GHQ-12 scale.

In chapter 3, we reported that the biggest difference in levels of psychological distress related to gender. On average, girls had GHQ-12 scores that were 4 points higher than they were for boys. This difference remained *consistent* after adjustment for other factors suggesting that the effect of gender was independent from the other factors considered. This is, perhaps, unsurprising given that girls and boys are likely to be evenly distributed across the different demographics we adjusted for.

In contrast, the association between living in a rented accommodation and higher levels of distress disappeared when other factors were taken into account. This suggests that other socio-economic factors which are also associated with living in rental accommodation (for example, parental social class and education) were more important in driving lower GHQ-12 scores than the fact of living in rented accommodation itself.

⁴⁵ The approach adopted was multiple linear regression predicting GHQ-12 Likert scores using those factors that were identified as statistically significant using the bivariate analysis described in chapter 3.

Table 4.5 Predicting GHQ-Likert scale using multiple linear regression

		Coefficient	Standard error	P-value
Effect remains constant	Gender (ref: male)			
	Female	4.05	0.16	0.00
Effect increases	Illness or disability (ref: none)			
	Has illness or disability – affects schooling	1.05	0.30	0.00
	Has illness or disability - schooling not affected	-0.01	0.26	0.97
	Family type (ref: two parents)			
	Step-family	0.52	0.27	0.05
	Single parent	0.85	0.19	0.00
	No parents	1.52	0.92	0.10
Effect decreases	Highest parental qualification (ref: degree level)			
	None	-0.97	0.36	0.01
	Other	0.27	0.86	0.75
	Level 1 or below	-0.83	0.26	0.00
	5+ GCSE	-0.64	0.25	0.01
	A levels	-0.58	0.24	0.01
	Higher Education but below degree	-0.20	0.21	0.35
	Family NS-SEC (ref: Prof & Man)			
	Intermediate	-0.07	0.23	0.78
	Small employer and own account	-0.03	0.29	0.91
	Lower supervisory and technical	-0.29	0.35	0.41
	Semi-routine and routine	-0.58	0.22	0.01
	Never employed and long- term unemployed	-0.78	0.51	0.13

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Government Office Region (ref: South East)			
North East	-0.02	0.33	0.95
North West	-0.52	0.25	0.04
Yorkshire and the Humber	-0.13	0.28	0.63
East Midlands	0.20	0.30	0.51
West Midlands	-0.56	0.26	0.03
East of England	-0.05	0.27	0.87
London	-0.29	0.28	0.31
South West	0.08	0.32	0.80
Ethnicity (ref: white)			
Mixed	0.22	0.40	0.58
Indian	-1.12	0.42	0.01
Pakistani	-1.72	0.46	0.00
Bangladeshi	-0.44	0.56	0.43
Black African	-1.73	0.39	0.00
Black Caribbean	-0.72	0.54	0.19
Other	0.69	0.49	0.16

Note: Based on multivariate analysis of LSYPE cohort 2 data.

No longer statistically significant: mother's main activity, eligible for FSM, tenure, school type

As shown in chapter 3, having an illness or disability that affected schooling, and living in a step or single parent family, were associated with higher levels of psychological distress. The effect of these factors actually **increased** in importance after taking other factors into account. This is likely due to the fact that these are characteristics associated with socio-economic disadvantage, and socio-economic disadvantage was in turn generally associated with *lower* levels of psychological distress. Once the effect of socio-economic disadvantage had been accounted for, the unique effect of having an illness or disability or specific family type becomes more evident and their negative impact on psychological distress increases.

The impact of some characteristics on the level of psychological distress **reduced** after adjustment. In chapter 3 we had seen some quite significant patterns for ethnicity, with specific minority groups showing lower levels of psychological distress than white and mixed young people. Once other factors are taken into account, the importance of ethnicity reduced slightly. The effect of region was also reduced.

The impact of all the socio-economic measures on GHQ-12 reduced in size after adjustment, though some more so than others. The impact of socio-economic class was smaller, while the impact of both housing tenure and eligibility for FSM disappeared altogether once the other factors were adjusted for.

While there was a small reduction in the importance of parental education, this remained the most important predictor of psychological distress relative to other measures of socioeconomic status (although it is important to remember that the difference in average psychological distress across the spectrum of parental education remains relatively small). Despite this caveat, the multivariate analysis suggests that parental education is the main pathway through which advantage increases the risk of higher psychological distress.

Psychological distress and advantage

Certain socio-demographic groups experienced higher levels of psychological distress; particularly girls, young people who had an illness or disability that affected their schooling and those in single parent or step families. All of these groups experienced higher than *average* levels of psychological distress (as measured on the GHQ-12 Likert scale) and more frequently experienced levels of distress above the GHQ-12 caseness threshold. Attempts to reduce psychological distress need to consider how factors such as gender, family composition and experience of illness or disability can be supported so that they become less critical. Similarly, school and policy responses may need to be tailored to take these issues into account without losing sight of the fact that young people from *all* backgrounds can suffer from psychological distress and may need support.

Even more complex is the search for an appropriate policy response to the perhaps unexpected finding that the average GHQ score was slightly higher among some relatively advantaged groups. As we saw in chapter 3, young people in lower NS-SEC groups, receiving FSM, living in the most deprived geographical areas and with parents who had no or low educational qualifications appeared to experience lower levels of distress than their more privileged counterparts.

As discussed in chapter 3, this finding does not necessarily contradict other evidence which shows that poor mental health is associated with disadvantage (for example Guttman et al, 2015). Our research focuses on a scale that measures internalised emotional difficulties as opposed to externalised behaviours, both of which are valid measures of poor mental wellbeing. Increased levels of distress among more advantaged young people has also been noted before (West and Sweeting, 2003). In this study we observed an increase in average levels of psychological distress (measured using the GHQ likert scale); the relationship with more severe levels of distress above the caseness threshold was generally less strong.

That said, we did identify one notable exception, which is that clinical levels of psychological distress were significantly more likely in households where the highest educational qualification in the household was a degree (26%), compared to households where no parent-figure in the household had a qualification (22%). Broadly speaking, this suggests it is important for policy responses to be cognisant that having a relatively

advantaged background does not mean that a young person will be less at risk of mental health problems. It also suggests that even if policy focuses on specific socio-demographic characteristics, or attends to mental health concerns for those who are more disadvantaged, it would be a mistake to ignore the presence of quite severe distress among relatively advantaged young people.

In the following section we examine this association further and try to understand what it is about having parents with a degree level qualification (in particular) that is associated with higher average levels of psychological distress. The next section explains how we approached this ‘mediation’ analysis – a method which can also be used to explore other policy questions using the LSYPE data. As far as possible we avoid technical language but readers who prefer to skip the methods used can continue reading from the section headed ‘Parent push’ and those who prefer a more condensed version of our findings can jump to the summary.

What factors mediate the relationship between distress and parental education?

We considered three mechanisms through which the relationship between parental education and psychological distress might take place or, in other words, is mediated.

In the next section we outline these three hypotheses along with the variables we identified to capture each proposed pathway, and then tested them against the data⁴⁶. The hypotheses are not mutually exclusive and our approach took account of the fact that all three of them may function as mediators.

We labelled our first hypothesis ‘parent push’. Here, we considered the possibility that parents with degree level qualifications expect more from their children and consequently exert more pressure on them to succeed.

Our second hypothesis, which we labelled ‘personal drive’, considers whether the attitudes and aspirations of the young person themselves might explain their higher levels of distress. These attitudes and aspirations will be influenced directly by the views and behaviours of their parents. However they will also be a result of the wider context in which young people grow up, that is also attributable to having higher educated parents. In other words, as an indirect effect of their parents’ higher level of education.

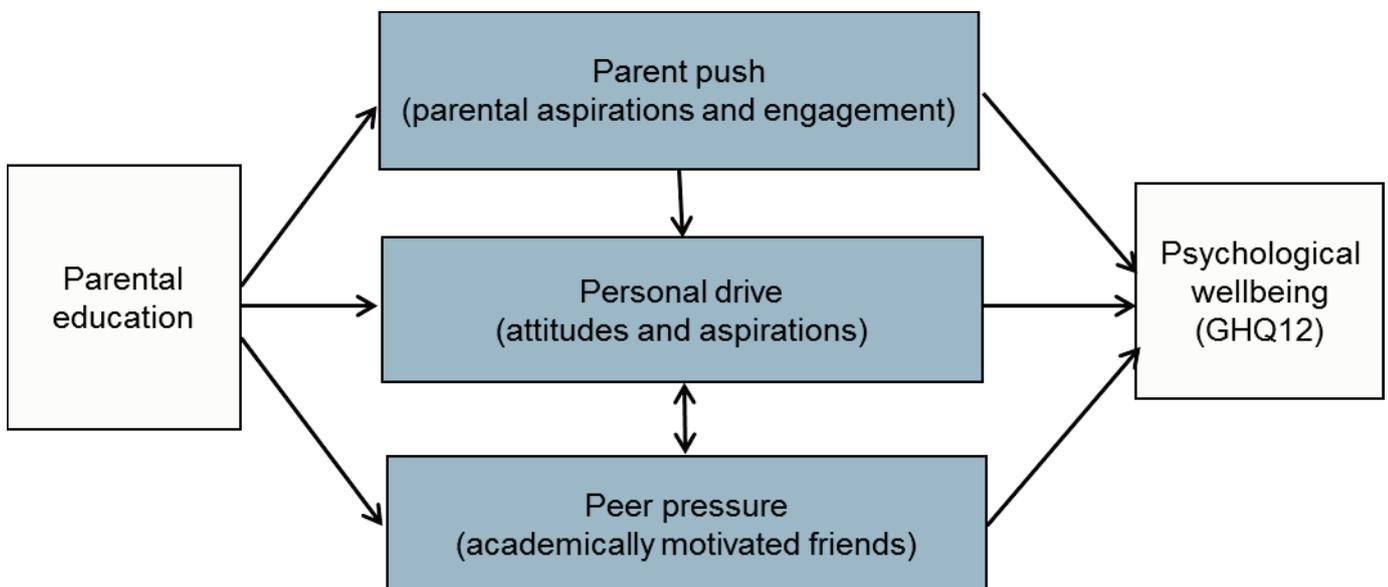
Finally we considered a third hypothesis which we termed ‘peer pressure’. At age 14 to 15, young people are at a period of their lives where peer influence is particularly strong

⁴⁶ This analysis is based on a sub-set of the original sample – to be precise, 6,127 young people - for whom we had complete data for all the variables of interest. We are fairly confident that this restriction does not affect the validity of the findings because we repeated the analysis for different subsamples relating to each hypothesis examined and found that the analysis generated very similar results.

(Steinberg and Monahan, 2007). It is possible that an academic competitiveness exists among more advantaged peers or that there is a mutually reinforcing increase in expectations among them – and that this may contribute to higher levels of distress. However, over the course of our analyses it became apparent that ‘peer support’ may actually better reflect those measures we were able to utilise for this purpose.

We can illustrate these three hypotheses using the diagram in figure 4.1.

Figure 4.1 Possible mediators between parental education and psychological distress



In order to examine these three hypotheses we looked for suitable variables that would help us test for ‘parent push’, ‘personal drive’ and ‘peer pressure’. Table 4.6 sets out those we identified.

Table 4.6 Variables to explore parent push, personal drive and peer pressure

Parent push	Personal drive	Peer pressure
Parental aspirations for year 12	Aspirations for year 12	Friends think doing well in school is important
Parental aspirations for university	University aspirations	Friends laugh at those who do well
How involved the parent feels in their child's school life	Attitudes to school	Friends distract me from doing well in school
Frequency of discussing the school day	Homework compliance	Friends help me with school work
Regularity of discussing school reports	'Equates hard work with success'	
Whether they pay for private tuition		
How often the parent talks with their child about future study plans		

In practice, each of these concepts is hard to measure well and using these 'found' variables is inevitably imperfect. Regarding parent push, parents with degree level qualifications may expect more from their children and consequently exert more pressure on them to succeed. We have tried to capture parent push using a range of measures including their aspirations, how engaged they are in their child's school life and whether they pay for additional tuition to help their child succeed. Of course many of these measures capture supportive as opposed to explicitly pressuring parents (though implicit pressures may still have an impact). As such, even having seven related variables, as we do with parent push, doesn't guarantee that we will fully capture the concept (and hence the effect) that we hope for.

Parent push

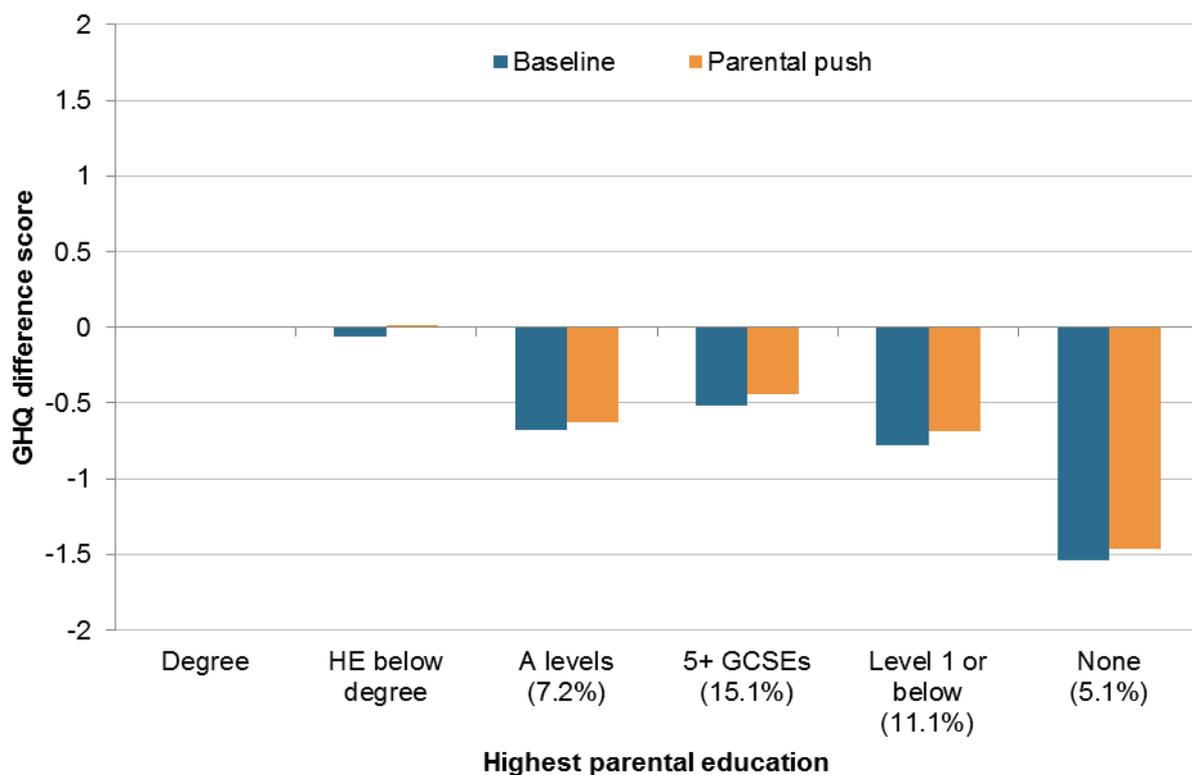
We begin, by exploring the effect of parent push. In table 4.6 are listed seven candidate behaviours selected to capture parent push. All of these are behaviours were positively related (that is they are more commonly observed) in households with higher levels of parental qualification. Some were also positively related to psychological distress while others were negatively related – we return to this issue later.

When we take account of all seven factors we find that we are able to account for slightly less than 10% (9.7%) of the gradient between parental education and psychological

distress. This effect could be described as small or even negligible. One interpretation of this finding is that parent push is genuinely not a major causative factor. However, it is also possible that parent push explains more of the gradient than we have been able to account for; perhaps the relevant factors were not included in the survey or they were but were not included in this particular approach.

Figure 4.2 shows this finding graphically. The blue bars show the difference in GHQ-12 relative to those whose parents had degree level qualifications. All of these bars are negative and fall below the line because these groups had lower levels of psychological distress relative to young people living in households where at least one parent had a degree.

Figure 4.2 The small mediating effect of parent push on the gradient (9.7%)



These blue bars represent our base line – that is, the differences in GHQ-12 scores across the educational levels before we consider the effect of parent push. The orange bars show the effect on these differences after we take account of parent push factors. Overall, the reduction in the difference in GHQ-12 scores is less than 10% but the reduction for individual groups is also given as a percentage in the labels at the bottom of each set of bars.

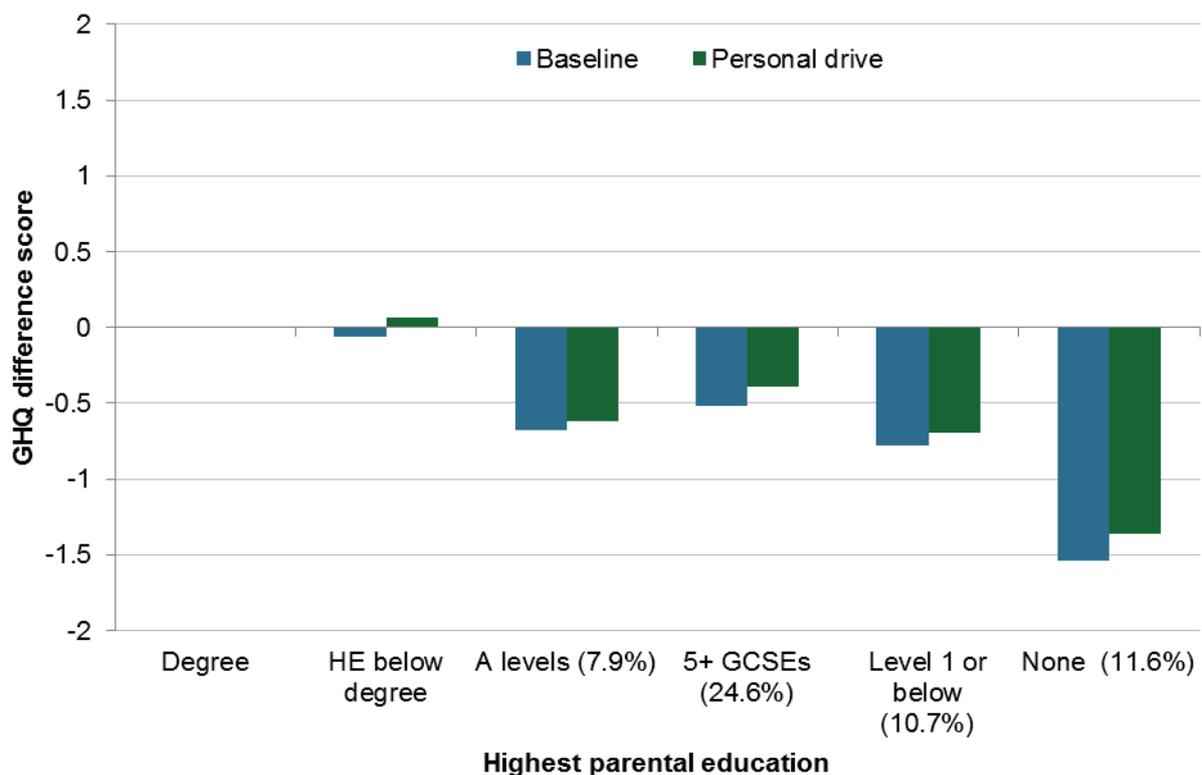
If our hypothesis had been correct and the parental education gradient was explained by parent push factors then the orange bars would be considerably smaller than the blue bars. Figure 4.2 shows that in practice this is not the case and, as such, parent push cannot be considered as a major driver of higher levels of psychological distress amongst

young people in highly educated households. Although as we have already noted, this could be because of the way we have measured parental push.

Personal drive

Next we considered five factors selected to capture what we termed ‘personal drive’. These were aspirations for year 12, aspirations for university, attitudes to school, compliance with homework and whether and how strongly the young person equated hard work with success. Taking account of these attitudes and behaviours reduced the overall gradient by just less than 14%. As such, these factors were slightly better at explaining the gradient than was the case for parent push - but this still constitutes a very small or even negligible fraction of the original gradient. The results are presented in figure 4.3, showing graphically that the gradient reduces only slightly after adjustment for ‘personal drive’ factors.

Figure 4.3 The slightly larger mediating effect of personal drive on the gradient (13.7%)



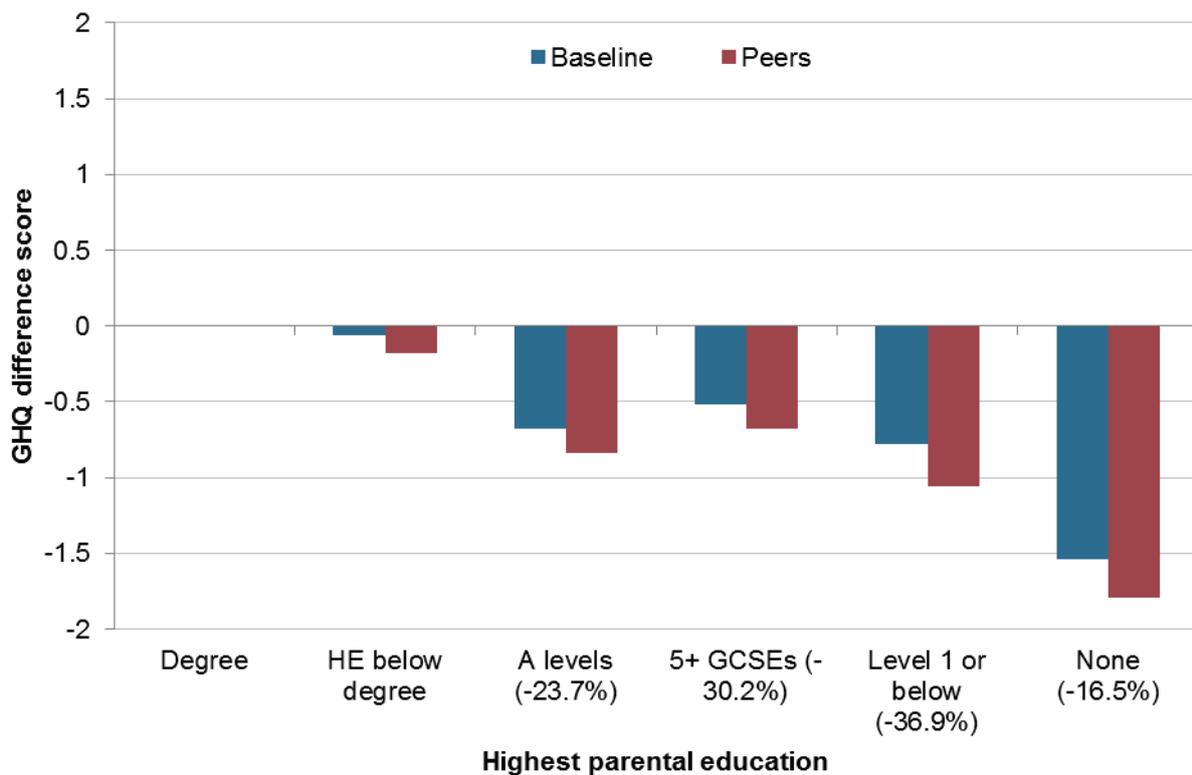
Peer pressure (or peer influence)

The final mediator we wanted to consider was peer pressure, although further analysis suggests that the concept of peer influence (or even peer support) better describes the measures we used to examine this. When looking at peers, we considered four attitudes which we summarise as; friends value school achievement; friends ridicule school achievement; friends distract from school work; and friends help with school work. Overall, the effect of these four factors is negative, in other words, their inclusion actually

increased the gradient by about one-quarter (-26.8%). This is because having academically motivated friends, far from contributing to a competitive stressful environment, appears to be supportive for mental health, and that academically motivated friends were more prevalent among young people whose parents had high levels of qualifications. If that were not the case then the original gradient between parental education and psychological distress would have been greater to begin with and therefore increase when we take account of this.

Once again, these findings are presented graphically in figure 4.4.

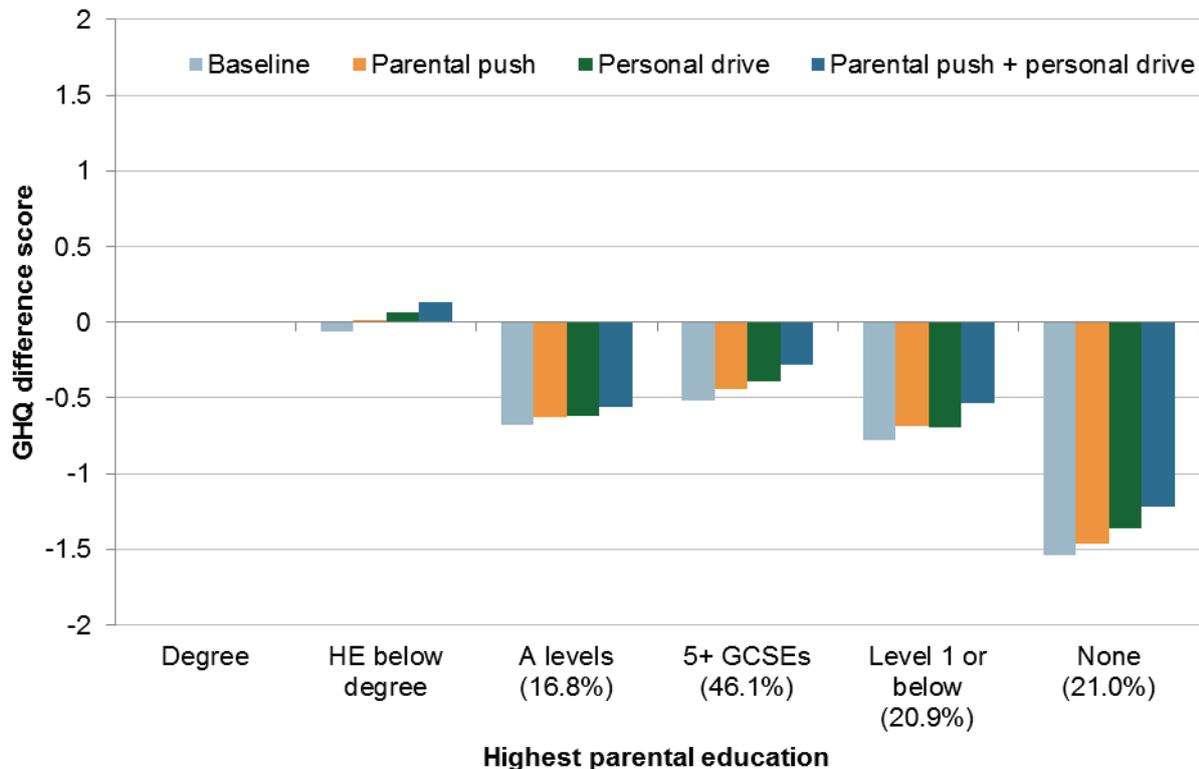
Figure 4.4 The mediating effect of peer support on the gradient is negative (-26.8%)



In a final step, we considered the combined influence of parent push, personal drive, and peer pressure to see how far we could explain the association between parental education and psychological distress when taking all factors into account. This was conducted in three stages, beginning with parent push. The results are presented in figure 4.5. As we had previously seen, parent push alone accounted for approximately 10% of the gradient. The addition of 'personal drive' measures further reduced the gradient, meaning that we were able to account for approximately 29% of the association between parental education and psychological distress. Unsurprisingly the addition of the factors, which perhaps should more appropriately be termed 'peer influence', then increased the gradient a little, meaning that overall we had accounted for 22% of the original association. In summary, our best attempt to identify the factors which explained the gradient between parental education and psychological distress found that parental

push and personal drive were able to account for approximately one-third of the association.

Figure 4.5 The combined effect of parent push and personal drive on the gradient (28.7%)



It is worth noting that the factors that make up 'parent push' and 'personal drive' are associated with psychological distress in different ways. For example, the young person's aspirations for the period after year 11 and for university are positively related to both parental education and psychological distress. Young people whose parents had degree level qualifications were more likely to have higher aspirations, and having higher aspirations was associated with having higher levels of psychological distress, making these prime candidates for explaining the gradient.

On the other hand, while these same young people were also more likely to have positive attitudes to school, be homework compliant and strongly associate hard work with success, these were traits associated with *lower* levels of psychological distress. When considered in isolation, these factors had the effect of *increasing* the association between parental education and psychological distress, similar to that seen with peer attitudes. In other words, as we had previously seen with the effect of 'peer influence' their average level of psychological distress would have been higher still were it not for the fact they were more likely to have positive attitudes to school, be compliant with homework and strongly associated hard work with success.

It could be argued that the inclusion of factors that have opposing effects is counterproductive to understanding the mechanisms explaining why young people with more educated parents have higher levels of psychological distress. However, the effects of these factors can be quite different when considered together rather than in isolation. For example, considered in isolation, the young person's aspirations for further and higher education explained approximately 7% of the association between parental education and psychological distress. This was significantly lower than when all 'personal drive' factors were considered together, despite their varying effect on psychological distress.

In practice, this occurs because young people with lower aspirations (associated with lower levels of psychological distress) are more likely to have poor attitudes to school (associated with higher levels of distress). When considered in tandem, however, the unique effect of personal aspirations on psychological distress increased significantly, and as high personal aspirations were associated with having highly educated parents, the result is to explain more of the original gradient. A similar effect occurs with parental push factors.

Summary

In summary, we can only partially explain the inverse relationship between parental education and psychological distress (where young people whose parents with more education have higher average levels of distress). In combination, parent push and personal drive explain about one-third of this (already quite small) gradient. We also identified that peers played an important role and that young people in families with higher educational qualifications would experience higher levels of psychological distress without them.

- Gender was the strongest predictor of psychological distress but other factors such as having an illness or disability that affects schooling and living in a single parent or step-family were also important.
- Parental education is the strongest socio-economic status predictor and had an inverse relationship with mean levels of psychological distress. Young people in a household where one or more parent has a degree are also more likely to be 'psychologically distressed' than if their parent has no qualifications.
- Parent push alone does not appear to explain the association between high parental education and psychological distress (accounting for less than 9% of the gradient). Personal drive is more promising, accounting for about 14%, but together, they account for about one-third of the gradient.

- Having peers who supported academic success appears to protect against psychological distress. Were this not the case the association between parental education and psychological distress would have been stronger.

Before closing, it is, perhaps, worth considering a different set of explanations, even though we have not explored them further here. Instead of asking “what is it about having parents with a degree level qualification (in particular) that is clearly associated with higher average levels of psychological distress?”, what hypotheses would we have tested had we asked “what is it about having parents who do *not* have qualifications (in particular) that is associated with having lower levels of psychological distress”? Are young people in relatively disadvantaged backgrounds better protected from the additional pressure that the change in school environment and the growth in societal expectation about attending university have brought? Are disadvantaged young people inured to the harshness of the economy and less subject to the ‘shock’ of the economic downturn than their more privileged counterparts who may be facing family concerns about employment and income for the first time? Is discussion of financial issues in disadvantaged households more focused on the very real micro-level concerns of day to day living rather than macro trends such as the broader economic downturn? Are parents without educational qualifications ‘easier to please’, because they invest less value in educational achievement or because they value it equally but trust their child to exceed their achievements?

There is a danger here, that we show too much concern for relatively advantaged young people when overall the odds are clearly stacked against the disadvantaged. For example, it is widely accepted that living in a ‘better educated’ household gives young people many advantages in terms of school support, help with applications and interviews, securing work experience and so on. Nevertheless, are the higher average GHQ scores among relatively advantaged young people showing anxiety that is worth further attention? Time will tell whether the young people suffering slightly higher levels of distress now will go on to experience significant mental health issues. On the other hand, is it possible that higher average levels of psychological distress experienced particularly by more advantaged young people may be part of a more complex process that will benefit them later – while disadvantaged teenagers may experience less distress but experience continuing disadvantage as a result in the longer term?

Chapter 5 Conclusions

Reflecting the complexity of the topic of the health and wellbeing of young people, the findings of our analyses are challenging from a policy perspective and there are few easy solutions. While some issues point towards policy needs, others pose further questions and would merit further investigation.

There were many apparent positives to be seen in the data and it is clear that the year 10 students who were interviewed in 2014 had markedly different attitudes and behaviours than those we spoke to in 2005. This appears to be a cohort of young people who are significantly more 'serious' than their predecessors. Young people in 2014 were more likely to believe in the importance of hard work, were more positive about school, were less likely to play truant and, in spite of the increase in tuition fees since 2005, were more likely to have aspirations to apply to university. They were also markedly less likely to engage in a raft of risky behaviours including smoking, using cannabis, shoplifting, graffiti and vandalism.

However, less positively, there was a social gradient for the majority of these measures, with young people from disadvantaged families faring less well than those from more privileged families, suggesting that efforts to address these inequalities are still required.

There were also challenges in terms of the mental wellbeing of young people. Overall levels of psychological distress increased between 2005 and 2014, though the scale of this change was not large. However, it was notable that the psychological distress levels of girls increased to a more significant extent, while that for boys may have actually decreased very slightly. This is a phenomenon that would merit further investigation as would the experiences of other groups who fare worse – such as young people in single parent and step families and those with a long-standing illness or disability that affects their school work.

Surveys, such as the Millennium Cohort Study, which employ measures that also take account of externalised psychological distress, have highlighted the greater prevalence of severe mental health issues faced by young people from disadvantaged backgrounds. The GHQ measure used in LSYPE2 is focused on internalised distress and, as such, identified that there were certain aspects of mental wellbeing with which relatively advantaged young people also had issues. While this 'middle class' distress tended to be at low to moderate levels, and in some cases may even be a positive sign that young people are being pushed in ways that may benefit them in later life, there was also an elevated level of what might be considered clinical distress in households with a degree level of parental education. This effect is challenging to explain, although supports the findings of previous research (West and Sweeting, 2003). It appears from our own analyses that parental expectations and personal drive account for some of it (though not, perhaps, as much as might have been expected, and some of this may have been to do with measurement).

As such, while we do not dispute the connection between poor mental health and deprivation identified elsewhere, we wish to highlight the fact that mental health issues can affect young people from all walks of life. Schools would seem ideally placed to cut through to *all* young people in year 10 and provide them with the support that they need around wellbeing (as well as effectively signposting them to other support services in more complex cases). As such, initiatives such as the appointment of a mental health champion for schools by DfE and support for peer networks are to be welcomed and it is hoped that the focus on such issues will continue to gain momentum.

This cohort of young people has been growing up during a particularly challenging time. Their world has been changing very rapidly with (amongst many other societal changes) the advent of social media and the continuing ripples from the economic crisis of 2008 still being felt across Europe. These factors may well be behind the 'seriousness' of young people that was mentioned earlier. However, they may also be a contributing factor to increases in psychological distress. For example, while young people were more likely to strongly equate hard work with success in 2014 than in 2005, there has been a decrease in locus of control (i.e. the sense that young people have control over their own futures). At the same time, the size of the group who most strongly associated hard work with success and yet had a low locus of control saw the largest growth over this period, suggesting that an increasing number of young people lacked confidence in their ability to control their own outcomes in spite of the fact that they appreciated the value of working hard to succeed. In the event that the economy continues to grow in coming years, this may be a self-correcting phenomenon, but it merits monitoring and positive messaging on this topic may be beneficial in terms of psychological distress.

In particular, the tone of commentary on young people in the media may have a role to play in terms of their belief in their personal worth and their future prospects. The historical caricature that has sometimes presented young people as being on a downward trajectory in terms of behaviour (supported by commentary on a culture of binge-drinking, drug-taking and 'feral' behaviour, as well as a suggestion of laziness and that young people's success stems primarily from easier examinations rather than hard work) would seem to be unreasonable in the face of evidence to the contrary. Indeed, there may be benefits to young people, and to society as a whole, if there was more prominent coverage of the narrative described by the LSYPE data which show how relatively 'serious' young people were in 2014.

In summary, there is both sunlight and shade in the lives of these year 10 students. If the economic headwinds lighten, then it is entirely possible that in a few years' time employers will be blessed with the cohort of motivated, aspirational and educated young people that they will need. However, higher levels of psychological distress that are already evident at this age may also play out negatively in the future. Regardless, care needs to be taken to ensure that they have the support systems in place to enable them to cope with their emotional headwinds as well.

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Annex A LSYPE1 and LSYPE2 – background and technical detail

LSYPE1

The first Longitudinal Study of Young People in England (LSYPE1), also known as ‘Next Steps’, is a major, innovative, panel study of young people which brings together data from several sources, including annual interviews with young people and their parents and administrative datasets.

LSYPE1 started in 2004. The initial sample comprised 21,000 young people aged 13 or 14, sampled from the year 9 pupil records of schools throughout England (both maintained and independent schools, and mainstream and special schools). The sample was boosted with pupils from certain ethnic groups and with those attending schools in areas with high levels of deprivation. Both young people and their parents were initially interviewed at home about a range of experiences and views; however later waves were completed solely by the young person, usually over the telephone or internet. LSYPE1 initially interviewed participants annually for 7 years, until 2010. Wave 7 of LSYPE1 was the final wave managed by the Department for Education; the Institute of Education (IOE) have since taken over responsibility for the study.

The main role of the study is to provide evidence on the key factors affecting educational progress, attainment and the transition following the end of compulsory education. Data from the study has been used to monitor the progress of the cohort group, evaluate the success (or otherwise) of policies aimed at this group and provide an evidence base for policy development.

LSYPE2 sampling and survey design

Full details of the initial sample and survey design can be found in the wave 1 technical report available alongside the data via the UK Data Service.

Accessing the underlying data

In order to make data from the LSYPE surveys available to all, datasets are routinely deposited with the UK Data Service. At the time of publication the available data included LSYPE1 – waves 1 to 7:

<https://discover.ukdataservice.ac.uk/catalogue/?sn=5545&type=Data%20catalogue>

And LSYPE2 – wave 1:

<https://discover.ukdataservice.ac.uk/catalogue/?sn=7810&type=Data%20catalogue>

It is intended that the LSYPE2 waves 2 and 3 datasets will be available alongside a technical report and corresponding data documentation later in 2016.

Weighting

At wave 1 data was weighted using two components a) a sampling weight and b) a calibration weight. Full details of the weighting used at wave 1 can be found in the technical report.

For wave 2 the weighting approach was designed to compensate for non-response patterns, therefore there was no sampling weight component.

To estimate the response probabilities, a logistic regression technique was employed, whereby the outcome of either obtaining or not obtaining a wave 2 interview from a wave 1 respondent was predicted based on characteristics recorded at wave 1.

The predictors in the final model were:

- (a) The post-stratification component of the wave 1 weight;
- (b) The age at which the main parent left education;
- (c) The main parent's NS-SEC at wave 1;
- (d) The mother's age at the young person's birth;
- (e) Whether there was a natural father present in the household at wave 1;
- (f) The young person's gender;
- (g) The young person's ethnicity;
- (h) Whether English was the first or main language in the household at wave 1;
- (i) Tenure status at wave 1;
- (j) How often (at wave 1) the main parent knew where the young person was in the evenings;
- (k) Whether the household had a telephone at wave 1;
- (l) Whether (at wave 1) the main parent expected to move in the next 12 months;
- (m) Whether being their own boss or having their own business mattered to the young person at wave 1;
- (n) Whether (at wave 1) the young person reported being bullied;

- (o) Whether the young person has tried cigarettes and/or alcohol and/or cannabis;
- (p) Whether the young person did any paid work at wave 1;
- (q) How frequently the young person had breakfast on weekdays at wave 1; and
- (r) Region.

The design effect introduced by the wave 2 weighting is estimated at 1.135.

Annex B Explanations of characteristics and descriptions used in this report

The characteristics and descriptions used in this report broadly follow the definitions used in the wave 1 research report (RR338). Here we have detailed some instances where the way in which particular characteristics are reported differs from the approach used in RR338. This report also includes some measures that were not collected at the first interview (either for LSYPE1 in 2004 or for LSYPE2 in 2013). Brief explanations of these are set out in the relevant chapters – attitudes to school (chapter 2) and GHQ-12, ‘equates hard work with success’ and locus of control (chapter 3). In addition, annex D describes the exploratory and confirmatory factor analysis that was carried out during the construction of the measures ‘equates hard work with success’ and locus of control.

Further details about the variables used in this report will be available in the documentation to accompany the wave 2 dataset, which will be available to download from the UK Data Service later this year.

Parents and family composition

The report frequently refers to family type and number of parents for example, single or reconstituted families. This is based on a variable that has been derived from information given by a parent or guardian at the start of the interview, about who lives in the household with a young person. In this report ‘two parent’ households refer to cases where the young person is living with two people defined by the respondent as natural, foster or adoptive parents, ‘single parent’ households refer to cases where the young person is living with only one person in the household defined as a natural, foster or adoptive parent and is not living with a step-parent, and ‘step-families’ refer to cases where the young person is living with two parents or guardians, one of whom is defined as a step-parent. There were also a small number of cases of young people not living with any parents. These were cases where the young person was either in care or living with relatives that they did not define to be their parents, for example aunts and uncles or grandparents.

When the report refers to characteristics in relation to the young person’s mother or father (for example mother’s highest qualification or employment status) this only refers to a mother or father that the young person was living with at the time of the interview, and does not include absent parents. It may include natural, step, adoptive or foster parents if the young person was living with them at the time of the interview.

Where the report refers to answers reported by parents, these have been supplied once per household, by the young person’s ‘main parent’. In households containing two parents, the parent or guardian who considered themselves most involved with the young person’s education answered these questions, regardless of their biological relationship.

Risk factors – reported by the young person

Some breakdowns presented in this report reflect the number of ‘risk factors’ reported by the young person through their survey responses. A particular set of responses were deemed to represent risk factors – for example, if a young person reported drinking or shoplifting. For each young person, the number of ‘risky’ responses given has been added up, creating a simple index. The specific approach to measuring risky behaviours in this report is set out in chapter 3. It differs from the way that risky behaviours were considered in RR338 in several ways. Firstly, we wanted to focus on a narrower set of behaviours and did not want to take account of school related activities which have been reported elsewhere. As a result, this report does not include legal highs, gang membership, misbehaviour in school or truancy. We also excluded behaviours (such as violence) which were measured differently across cohorts. There are also some differences in the way that individual risky behaviours have been treated. For example in RR338, alcohol use was defined as drinking more than once a week or ever having been ‘really drunk’ whereas in this report consideration was only given to frequency of drinking.

Annex C Correlations of wellbeing measures in 2005

In chapter 4 we examined the correlations of the different wellbeing measures in 2014 (presented in table 4.1). Here, we present the equivalent correlations in 2005 in table C.1. These matrices have fewer cells than table 4.1 because some variables were not available at cohort 1⁴⁷.

Table C.1 Correlation of different measures of wellbeing in 2005 (cohort 1)⁴⁸

Cohort 2	Self-reported health	GHQ-12 Likert	Sleep	Equates hard work with success	Locus of control	Risky behaviours 1	Risky behaviours 2
Self-reported health	1	0.35	n/a	-0.17	-0.12	0.18	n/a
GHQ-12 Likert	0.35	1	n/a	-0.16	-0.15	0.20	n/a
Sleep	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Equates hard work with success	-0.17	-0.16	n/a	1	0.25	-0.23	n/a
Locus of control	-0.13	-0.15	n/a	0.25	1	-0.16	n/a
Risky behaviours 1	0.18	0.20	n/a	-0.23	-0.16	1	n/a
Risky behaviours 2	n/a	n/a	n/a	n/a	n/a	n/a	n/a



⁴⁷ In 2005 we did not have measures of sleep or all of the variables necessary to compute the second measure of risky behaviour e.g. cyber bullying. As a result, the relevant columns and rows are marked as not applicable.

⁴⁸ We used the correlation statistic (Pearson's, polyserial, or polychoric) that was appropriate for the level of measurement (interval, ordinal or count) of each pair of measures examined.

To make the comparison in the level of the correlations between 2005 and 2014 easier, we have presented the difference in the level of correlations in table C.2. In general, the associations between the measures increased slightly between 2005 and 2014 with the biggest increases between locus of control and each of the other wellbeing variables.

Table C.2 Difference in the correlation of measures of wellbeing between 2005 and 2014

Cohort 2	Self-reported health	GHQ-12 Likert	Sleep	Equates hard work with success	Locus of control	Risky behaviours 1	Risky behaviours 2
Self-reported health	0	0.04	n/a	-0.01	-0.65	-0.02	n/a
GHQ-12 Likert	0.04	0	n/a	-0.03	-0.10	0.01	n/a
Sleep	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Equates hard work with success	-0.01	-0.03	n/a	0	0.07	0.03	n/a
Locus of control	-0.07	-0.10	n/a	0.07	0	-0.03	n/a
Risky behaviours 1	0.02	0.01	n/a	0.03	-0.03	0	n/a
Risky behaviours 2	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Annex D Exploratory and confirmatory factor analysis solutions for 'equates hard work with success' and locus of control

Fatalism – statements about success

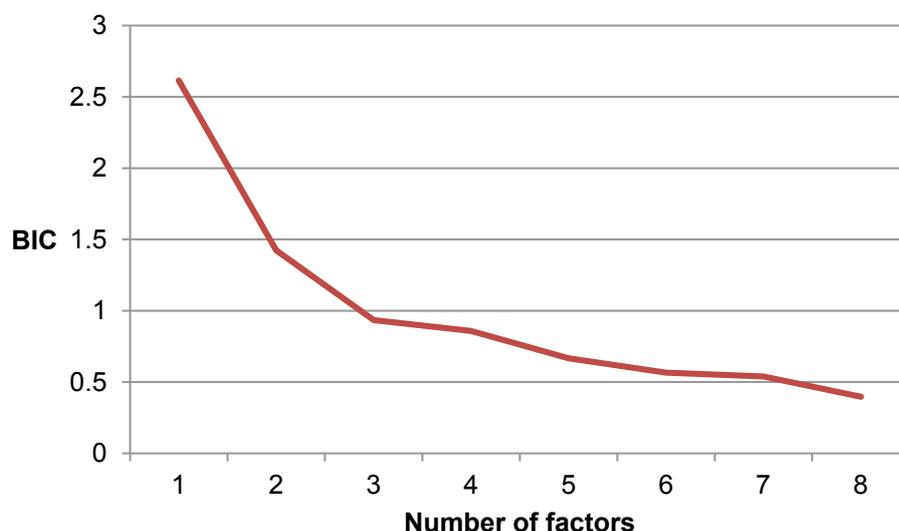
In wave 2 of both cohorts, young people were asked the following eight statements about success:

- If someone is not a success in life, it is usually their own fault
- Even if I do well at school, I'll have a hard time getting the right kind of job
- Working hard at school now will help me get on later on in life
- People like me don't have much of a chance in life
- I can pretty much decide what will happen in my life
- Doing well at school means a lot to me
- How well you get on in this world is mostly a matter of luck
- If you work hard at something you'll usually succeed

What follows are the results of exploratory and confirmatory factor analyses in which two underlying constructs were identified that we termed 'equates hard work with success' (a belief in the value of working hard at school and generally in order to succeed) and 'locus of control' (the extent to which individuals believe they can control events affecting them). It must be noted that these are our own concepts. For example, whilst the items used to measure locus of control fit well with the concept, they wouldn't necessarily be those selected in a study aimed at measuring the concept directly.

Cohort 1

Scree plot



Scree plot suggests a two factor solution. Eigenvalues > 1 also suggest two factors (although three and four factors are close)

One factor solution (factor loadings⁴⁹)

- If someone is not a success in life, it is usually their own fault (0.221)
- Even if I do well at school, I'll have a hard time getting the right kind of job (-0.313)
- **Working hard at school now will help me get on later on in life (0.756)**
- **People like me don't have much of a chance in life (-0.504)**
- I can pretty much decide what will happen in my life (0.270)
- **Doing well at school means a lot to me (0.719)**
- How well you get on in this world is mostly a matter of luck (-0.372)
- **If you work hard at something you'll usually succeed (0.599)**

Model fit – assessment: poor

RMSEA: 0.102; CFI: 0.818

Two factor solution (cfa)

Factor 1

- 1 If someone is not a success in life, it is usually their own fault (0.369)
- **3 Working hard at school now will help me get on later on in life (0.756)**
- 5 I can pretty much decide what will happen in my life (0.324)
- **6 Doing well at school means a lot to me (0.743)**
- **8 If you work hard at something you'll usually succeed (0.647)**

Factor 2

- **2 Even if I do well at school, I'll have a hard time getting the right kind of job (0.504)**
- **4 People like me don't have much of a chance in life (0.702)**
- **7 How well you get on in this world is mostly a matter of luck (0.570)**

Model fit (confirmatory factor analysis) - good

RMSEA: 0.044; CFI: 0.978

Item 1 and 3 could be considered as measuring something slightly different – both in terms of their factor loadings, residual variances (.888 and .908 respectively), and conceptually. In a three and four factor solution these items load on their own factors (i.e. they do not load as a pair).

⁴⁹ Geomin rotated loadings

Excluding these two items

Model fit (confirmatory factor analysis) - excellent

RMSEA: 0.017 CFI: 0.998

Final factors in order of factor loadings

Equates hard work with success

- **Working hard at school now will help me get on later on in life (0.783)**
- **Doing well at school means a lot to me (0.758)**
- **If you work hard at something you'll usually succeed (0.605)**

Locus of control

- **People like me don't have much of a chance in life (0.807)**
- **How well you get on in this world is mostly a matter of luck (0.542)**
- **Even if I do well at school, I'll have a hard time getting the right kind of job (0.456)**

Cohort 2

Exploratory factor analysis of the same eight items in cohort 2 suggested an identical solution.

Replication of final CFA above

Equates hard work with success

- **Working hard at school now will help me get on later on in life (0.761)**
- **Doing well at school means a lot to me (0.749)**
- **If you work hard at something you'll usually succeed (0.662)**

Locus of control

- **People like me don't have much of a chance in life (0.803)**
- **How well you get on in this world is mostly a matter of luck (0.547)**
- **Even if I do well at school, I'll have a hard time getting the right kind of job (0.420)**

Model fit (confirmatory factor analysis) - excellent

RMSEA: 0.030; CFI: 0.994

Annex E Glossary

Acronym	Meaning
A levels	Advanced Levels
DfE	Department for Education
FSM	Free School Meals
GCSEs	General Certificates of Secondary Education
GHQ	General Health Questionnaire
GOR	Government Office Region
HE	Higher Education
IDACI	Income Deprivation Affecting Children Index
LA	Local Authority
LSYPE	Longitudinal Study of Young People in England
LSYPE1	The first Longitudinal Study of Young People in England
LSYPE2	The second Longitudinal Study of Young People in England
NEET	Not in Education, Employment or Training
NPD	National Pupil Database
NS-SEC	National Statistics Socio-Economic Classification
Ofsted	Office for Standards in Education, Children's Services and Skills
RPA	Raising the Participation Age
SEN	Special Educational Needs



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