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Empirical research on Youth
Transitions to, and within, the labour
market

Education and labour market trends
affecting 16-to-24 year olds and the
impact on adult employment
trajectories

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RESEARCH

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1 Context

Following a sharp increase in youth unemployment after the recession of 2008/09, the youth unemployment rate¹ has been falling consistently in recent years. In the last quarter of 2014, youth unemployment was down 3.8 percentage points on the previous year to 12.4%. There has also been a substantial reduction in the number of young people Not in Education, Employment or Training (NEET). For 2014, the Department for Education² reported that NEETs totalled 7.3% of all 16-18 year olds, down 0.4 percentage points on the previous year.

While these are all good news, youth unemployment is still high compared to other European countries and had been rising well before the recession, since 2005, when the economy was steadily growing. There are structural difficulties in the labour market for young people in the UK, such as the much higher unemployment of young people compared to the adult population resulting from employers preferring more skilled and experienced applicants and a lack of suitable skills of young people to match an increasing demand for intermediate technical skills and qualifications. In addition, economists³ have repeatedly emphasised that youth unemployment is likely to have long-lasting effects or “scarring” – that is, higher unemployment and lower earnings in their adult lives compared with people making “good” initial transitions to the labour market. Therefore, policy interventions aiming to reduce youth unemployment today are likely to result in substantial welfare gains extending well beyond the present period.

At EU level, large scale programmes like the Youth Employment Package have been launched, further supporting national policy. In the UK, labour market and education policy for young people has been extended and focused on young people at risk of disengagement with large scale programmes including the Work Programme, the Youth Contract and the Innovation Fund. Good general education, useful vocational knowledge and skills and labour market experience are crucial to successful labour market transitions for young people, giving BIS a clear role in improving the situation of young people. Within BIS’s remit, many skills and education programmes have been enhanced for young people, in particular apprenticeships and traineeships, along with financial incentives for organisations creating apprenticeships and regulatory reform improving the quality of educational provision.⁴

However, the policy response to youth unemployment also needs to be discussed in the light of long-term changes in education and labour market participation since the 1970s. Education participation (both vocational and general) increased substantially, while employment declined⁵. The labour market today is very different compared to the 1970s,

¹ Defined as 16-24 year olds who are unemployed as percentage of the total economically active labour force of this age group. This uses the ILO definition of unemployed, which includes everyone looking for and available for work whether or not they are claiming benefits.

² Greer M (2014), *Participation in Education, Training and Employment by 16-18 year olds in England: End 2014*, Statistical First Release, SFR 19/2015, Department for Education, Office of National Statistics.

³ Gregg, 2001; Bell and Blanchflower 2011

⁴ Department for Business, Innovation and Skills (2013), *Government evidence on EU action plan to tackle youth unemployment*, report to the EU-subcommittee on the Internal Market, Infrastructure and Employment.

⁵ Cregan, 2001

for which the most robust evidence of “scarring” was obtained based on long-term data from the National Child Development Study (NCDS), and our study aimed to further research both the structural changes in the education and labour market participation of young people, as well as to understand the existence and nature of scarring based on further data.

2 Objectives of this research

In the context of these policies, this project researching *Youth Transitions to, and within the Labour Market* aimed to achieve:

1. A better understanding of movements and progression within the youth labour and learning sectors, answering such questions as:
 - What types of learning and employment are young people involved in;
 - How long do those episodes last and how often do people switch from one type to another;
 - Do some transitions or movements lead to better outcomes than others or lead more swiftly to a good outcome than others
 - What influences young people's movements and progression and what is the relative influence of these factors across the different groups.
 - Is it possible to identify different groups of young people who are affected in different ways and the characteristics of these different groups?
2. Answer to key policy questions including, but not restricted to:
 - What pathways and transitions are most likely to support young people into work?
 - What pathways and transitions are most likely to support young people into a better job?
 - How do different groups within the youth labour market move into work and progress?
3. Providing a linked dataset that is capable of being used in the future to answer a range of policy questions relating to how patterns in youth transitions have changed in the last 30 years.

This report summarises findings from research in relation to the first objectives of the research project on the changing learning and employment participation of young people in the UK. The report provides long-term education and labour market trends affecting 16-to-24 year olds from 39 different birth cohorts and subsequent employment trajectories. It also includes an econometric analysis of the effects of experiencing difficulties when making the initial transition to the labour market on subsequent life course trajectories. Two further reports of the project, which will be published at the same time, show research in relation to further objectives of the project.

3 Summary and conclusions of the work

3.1 Long-term changes in education and labour market participation

We compared the labour market and education activity of five particular cohorts, which correspond roughly to groups covered in different national cohort studies: 1959, 1970, 1980, 1990 and 1995. We used the Labour Force Survey (LFS) data to approximate longitudinal data in relation to birth cohorts, which allowed us to observe labour market conditions at young ages based on:

- cross-section data of 16-year olds entering the labour market in different years;
- longer-term labour market outcomes in adult years based on cross-sections of the population from the same birth years in later years.

This approach centres around “pseudo-cohorts” due to the fact that real longitudinal panel data (i.e. providing information for the same individual over time) is limited to particular cohorts from the National Child Development Study (NCDS), British Cohort Study (BCS), Youth Cohort Study (YCS) or Longitudinal Study of Young People in England (LSYPE) and/or cannot be observed with long-term outcomes. Because the pseudo-cohorts are generated from cross-section data and use population weights, there are fewer problems with sample attrition caused by non-participation and death compared to genuine longitudinal datasets. However, the advantage of using pseudo-cohorts comes at the cost that repeated cross-sections are not as robust as genuine panel data, e.g. because recent immigration is likely to have changed the composition of the younger pseudo-cohorts now observed in the labour market.

In Figure 1, we show how education and labour market activity in early life and adult employment trajectories differ for people of different birth “cohorts” (used as a synonym for pseudo-cohorts here).

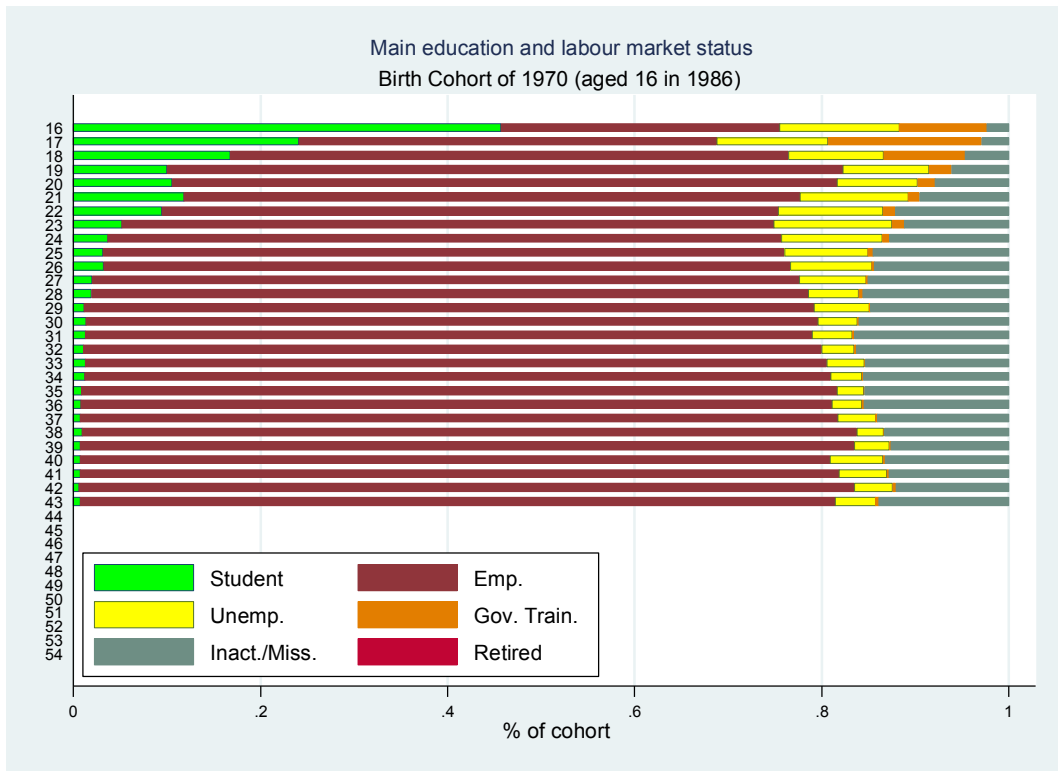
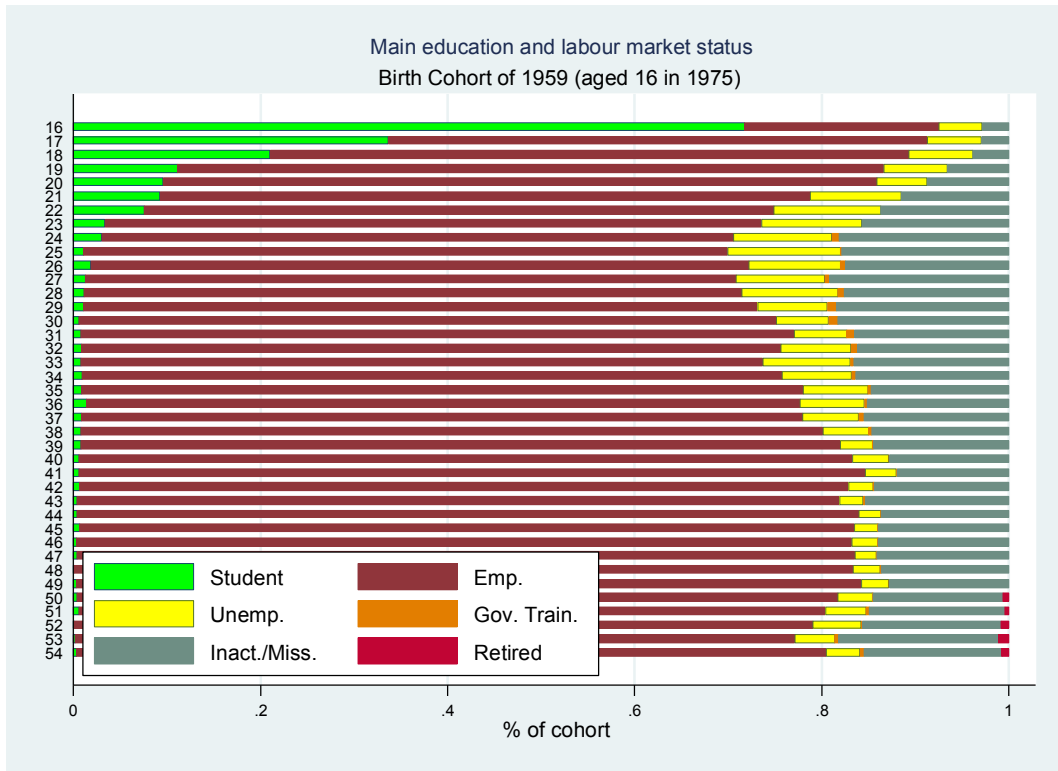
- **Cohort of 1959:** We observe high education participation rates at age 16 which declined rapidly with age. People entering the labour market before turning 20 experienced very low unemployment rates. The early 1980s and 1990s recessions boosted unemployment rates, when this cohort reached their 20s and 30s, but unemployment drastically declined when people were in their mid-30s.
- **Cohort 1970:** Compared to the 1959 cohort, people experienced an increase in post-16 education and youth unemployment was substantially higher at age 16. Unemployment declined as people became older but increased in the 1990s recession and then decreased until most recently. Education participation after the age of 20 increased.
- **Cohort of 1980:** Compared to earlier cohorts, people born in 1980 show the full extent of education expansion with many more people engaging in further vocational

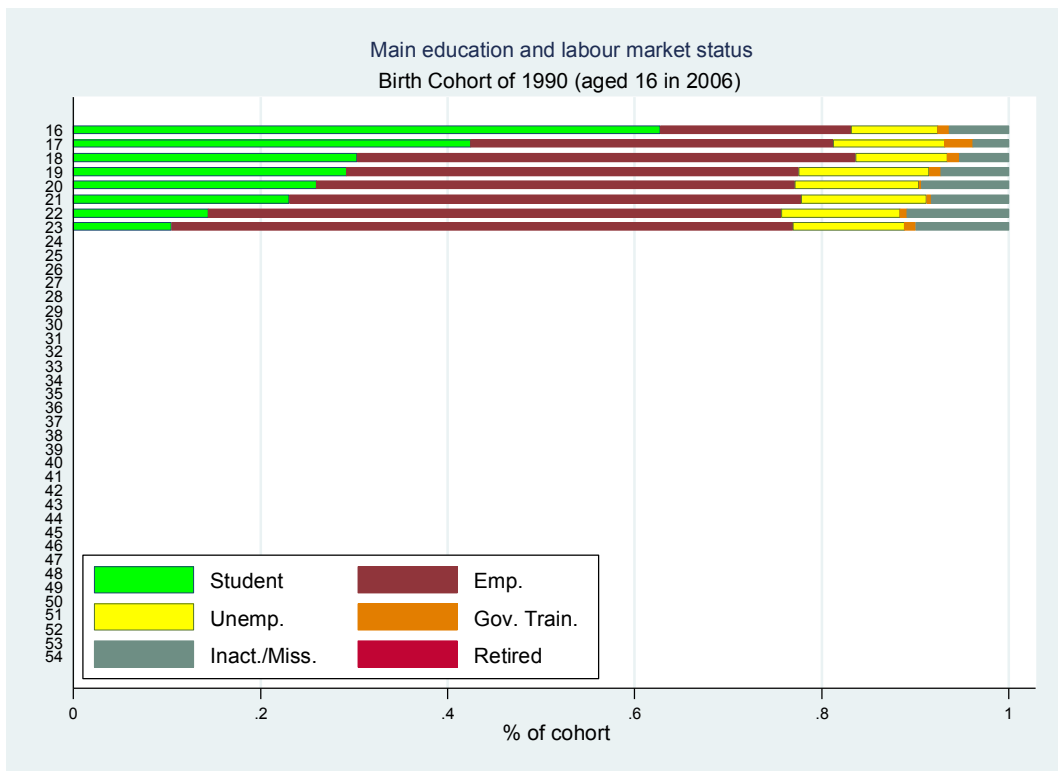
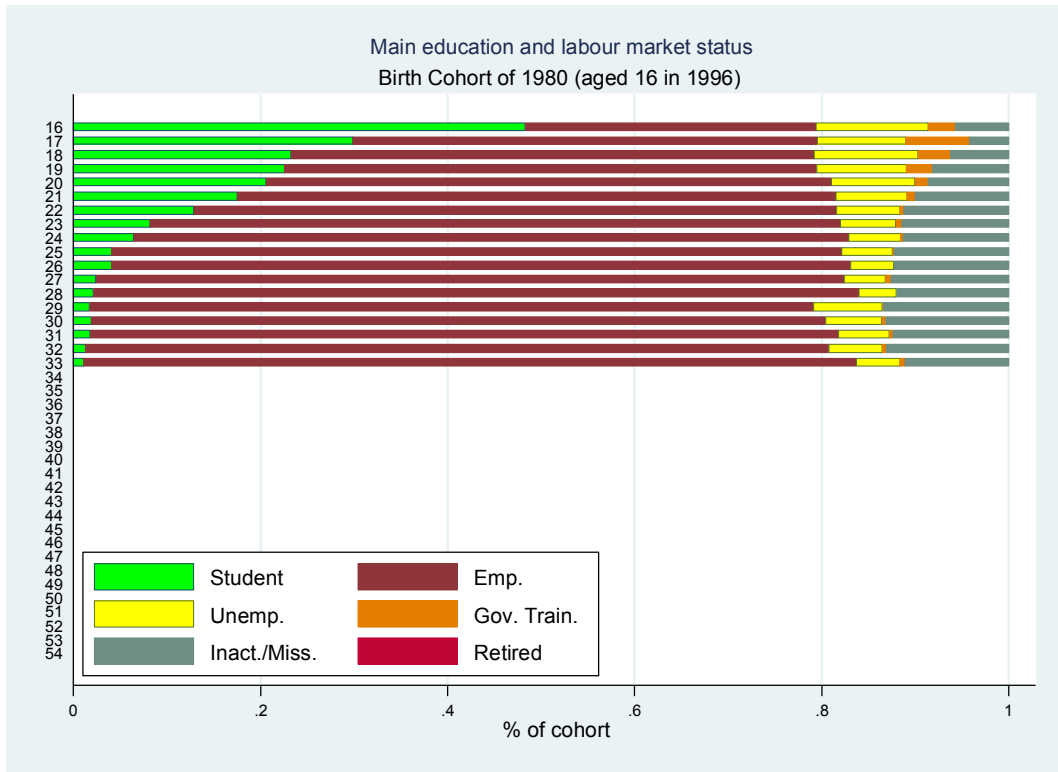
or academic programmes after leaving secondary schooling. Despite good economic conditions, there was high youth unemployment for young people, although this was lower than it was for the 1970s cohort at the same age.

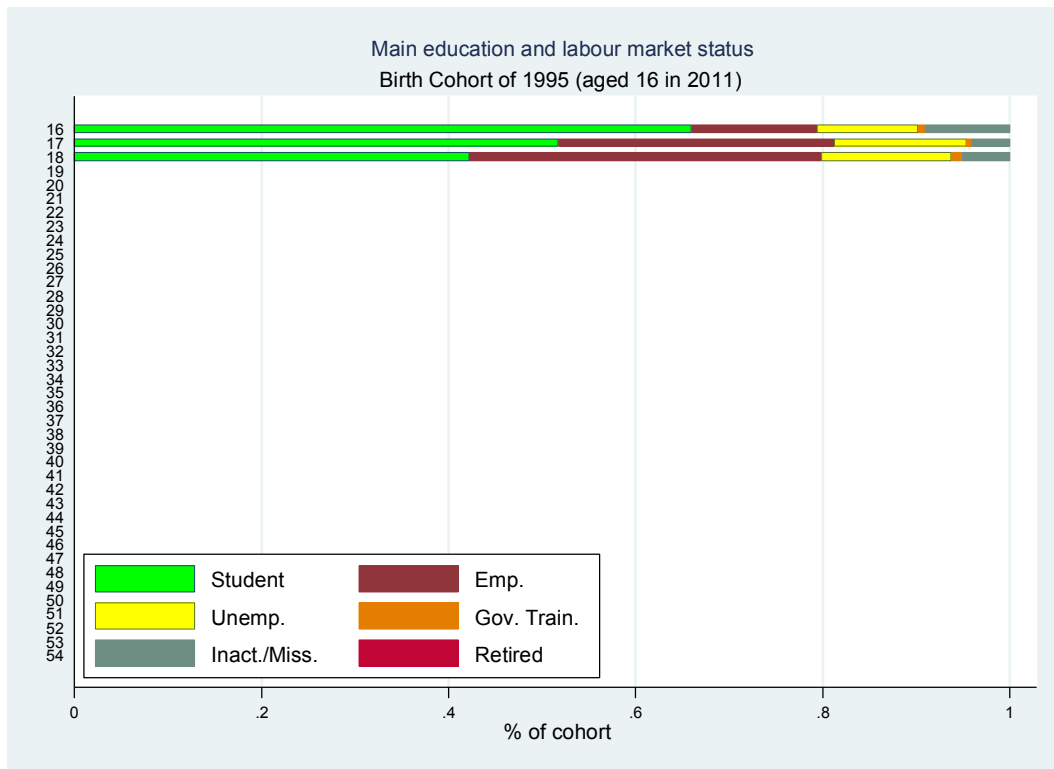
- **Cohorts of 1990 and 1995:** For cohorts born in the 1990s, the trend of increased education participation continued. Although the labour market conditions for people were relative favourable when people born in 1990 left secondary schools, only 20 per cent of the cohort started employment. Youth unemployment was similar to levels experienced by 16-year olds ten years before, and rose during and after the 2008/09 recession for both people born in 1990 and 1995.

Overall, increasing education participation suggests that young people start employment with higher levels of qualifications today than people born in earlier cohorts. Cohorts born after 1970 generally experienced high youth unemployment rates, which remained high even in “good” economic circumstances. In the light of this, a general trend of education expansion due to increased incomes in the expanding economy in the 1990s and 2000s is further affected by labour market conditions as persistent youth unemployment reduces “opportunity costs” of education in terms of foregone earnings.

Figure 1: Labour market and education participation of selected birth cohorts







3.2 Increase in qualification levels

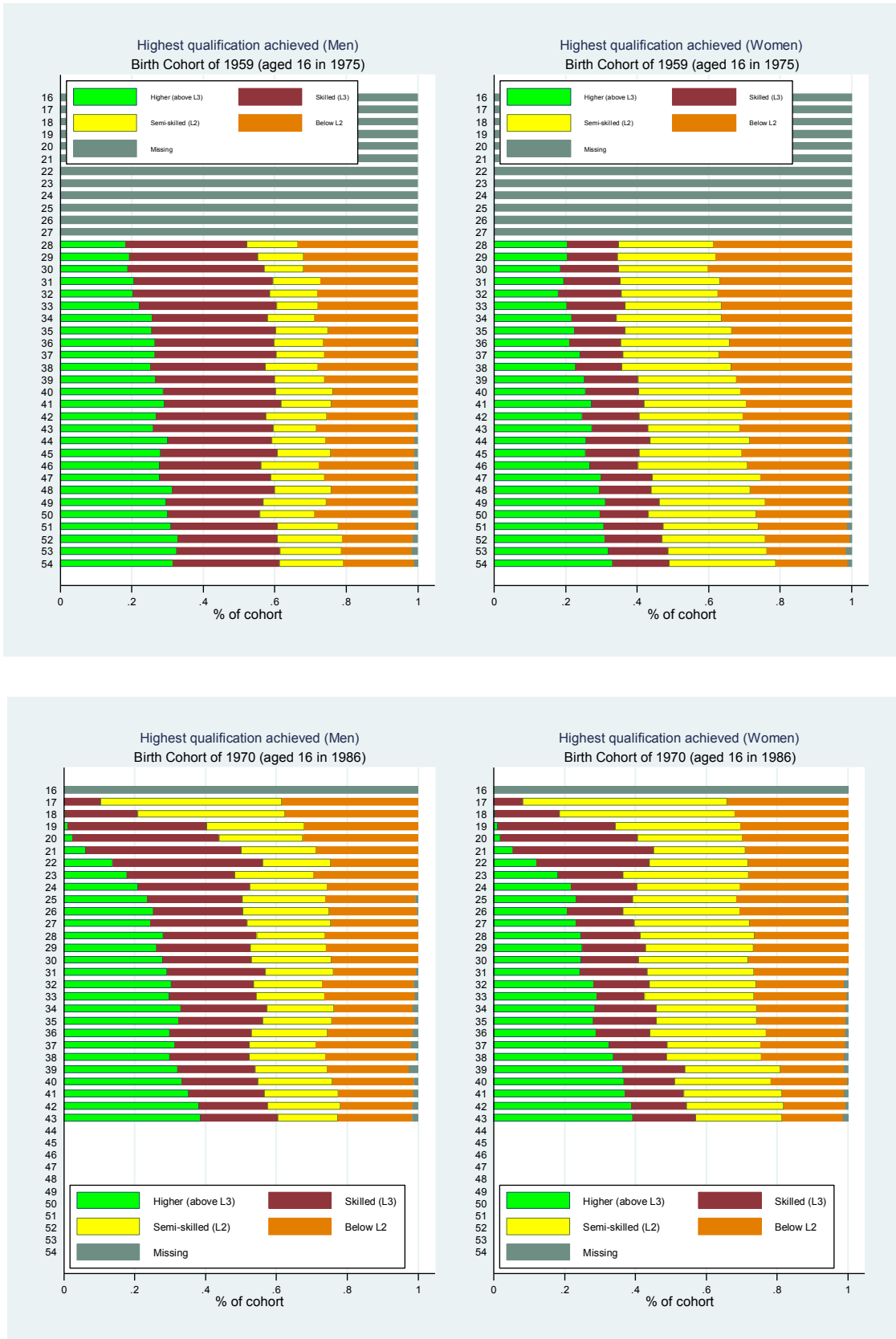
Figure 2 shows that increases in qualifications can be observed both at age 16 across cohorts and within cohorts, i.e. people gain further qualifications over their lifetime.

- Cohort of 1959:** Qualification levels for this cohort are first observed only when people were 28. Qualifications levels were much higher for men than for women at the lower end of the qualification spectrum, although an up-skilling over time reduced the gender gap. In addition, the proportion of individuals with qualifications below Level 2 decreased over time for both genders.
- Cohort of 1970:** Compared to the cohort of 1959 the share of individuals, both men and women, acquiring higher education qualifications increased and also increased with age. We also observe major reductions in the size of the group with qualifications below Level 2 over the life course for both men and women.
- Cohorts of 1980 and 1990:** At age 18/19, the proportion of young people born after 1980 with qualifications below Level 2 was substantially smaller than for previous cohorts. The acquisition of higher qualifications over the life course increased. At age 24/25 the share of individuals with higher education from the 1980 birth cohort was almost twice the share of the 1970 cohort, when these people were the same age. The percentage shares of people with Level 3 and 2 qualifications decreased over time, while the proportion with qualifications below Level 2 remained constant or increased (possibly due to immigration). People born in 1990 were still to a large

extent engaged in education at the age ranged observed here, but compared to earlier cohorts far fewer had qualifications below Level 2 in their early 20s.

To summarise, we observe that the share of individuals with higher qualifications increases over the period studied and the group with qualifications below Level 2 is substantially reduced. Within cohorts, there is a considerable decline in the numbers of those with qualifications below Level 2 or who were semi-skilled over the life course of early cohorts. Up-skilling primarily affects higher level qualifications, while the share of people with very low qualifications remains constant over the life course.

Figure 2: Education levels for selected cohorts by gender



Source: LFS and own calculations

Figure 2 (continued): Education levels for selected cohorts by gender



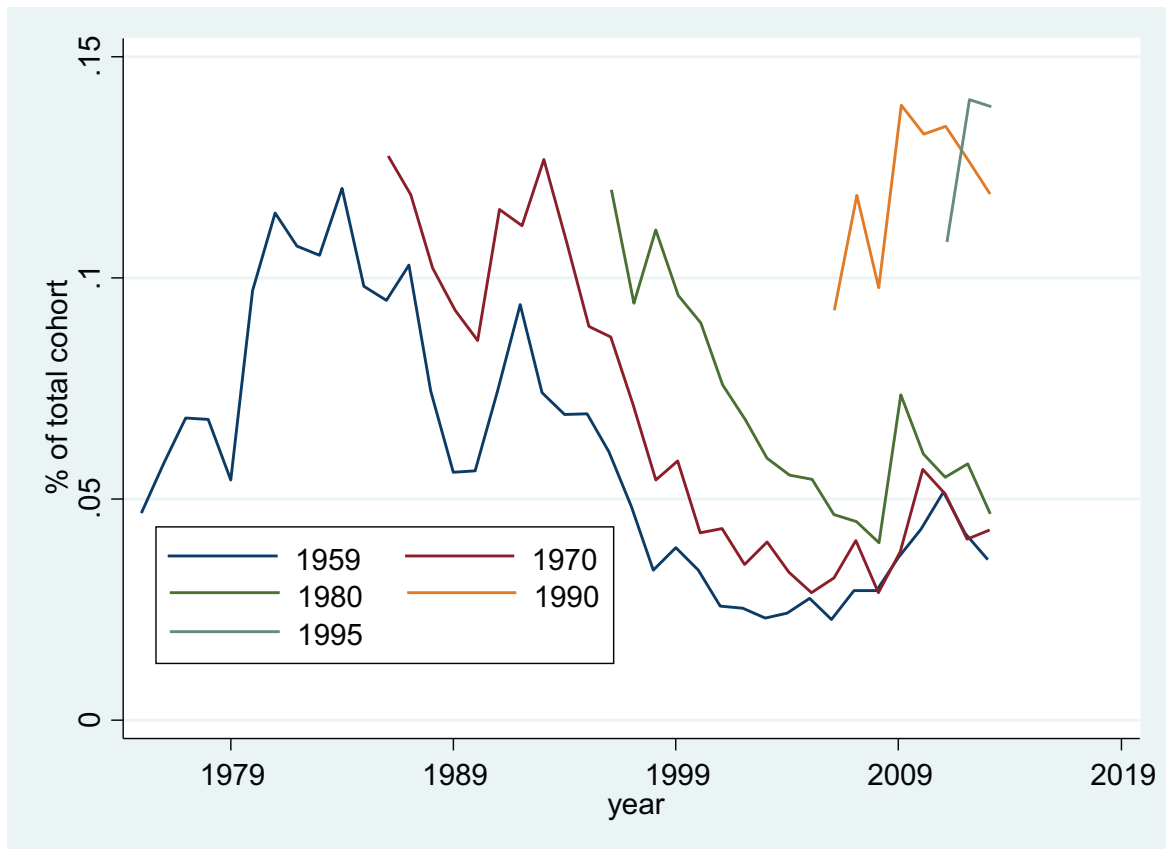
Source: LFS and own calculations

3.3 Unemployment and the business cycle

Figure 3 shows age specific unemployment ratios, i.e. unemployed people as a percentage of the total cohort, for each cohort over time in relation to the different years.

- **Cohort of 1959:** People experienced low unemployment at age 16, which then increased substantially in the early 1980s and 1990s recessions. After those two recession episodes unemployment ratios reduced to the minimum observable and only experienced a small peak in 2009 due to the recent recession.
- **Cohort of 1970:** Unemployment ratios for this cohort were twice as high when people were between 16 and 18 years old compared to when the 1959 cohort was the same age. After a steady decrease, unemployment increased because of the 1992 recession and rapidly declined subsequently.
- **Cohort of 1980:** Again, people faced high unemployment ratios at the age of 16 which decreased steadily until they turned 30, becoming the cohort with lowest unemployment ratios during their 20s. In 2009 the latest recession boosted unemployment again although levels remained well below 1992 levels.
- **Cohort of 1990:** Unemployment was initially low and increased to about 14 per cent in the recent recession. The sharp rise in unemployment ratio in 2009 started reversing two years after. The pace followed by the 1995 cohort is very similar to the 1990s one.

Despite having experienced adverse conditions during their 20s, due to the structural weakness of the labour market in the UK in the 1980s, the cohort of 1959, now in their 50s, shows the lowest unemployment ratios in recent years, lower than people now in their early 30s or 40s, who entered the labour market with (formally) higher initial qualifications and – at least the cohort of 1980 – without being affected by structural labour market weaknesses in early adult life.

Figure 3: Unemployment ratios by years for different birth cohorts

Source LFS and own calculations

3.4 Analysis of scarring effects resulting from youth unemployment

We analysed the effects of experiencing high youth unemployment on subsequent adult employment trajectories (“scarring” effects of youth unemployment) exploiting the differences in labour market conditions people face when initially making a transition from education to employment.

Using a pooled dataset of all pseudo-cohorts with one pseudo-cohort in one year representing a data point, we estimate linear models of the age profile (second order) on employment outcomes. These reveal average adult employment trajectories, controlling for the education composition of the cohorts (four levels) and a time trend (second order), which accounts for the generic employment growth having affected the UK aggregate since the 1970s. We estimate models for men and women separately. We estimate scarring of high youth unemployment by interacting the employment trajectories with a

variable indicating “excessive” youth unemployment¹, which **several** birth cohorts experience when they make initial transitions into the labour market.²

We show differences between cohorts affected by youth unemployment and other cohorts by plotting the estimated employment rates (as a percentage of the total labour force) in relation to the age of people. The predicted trajectories are surrounded by 95 per cent confidence intervals, which indicate significant differences between estimated effects if they do not overlap (Figures 4 and 5).

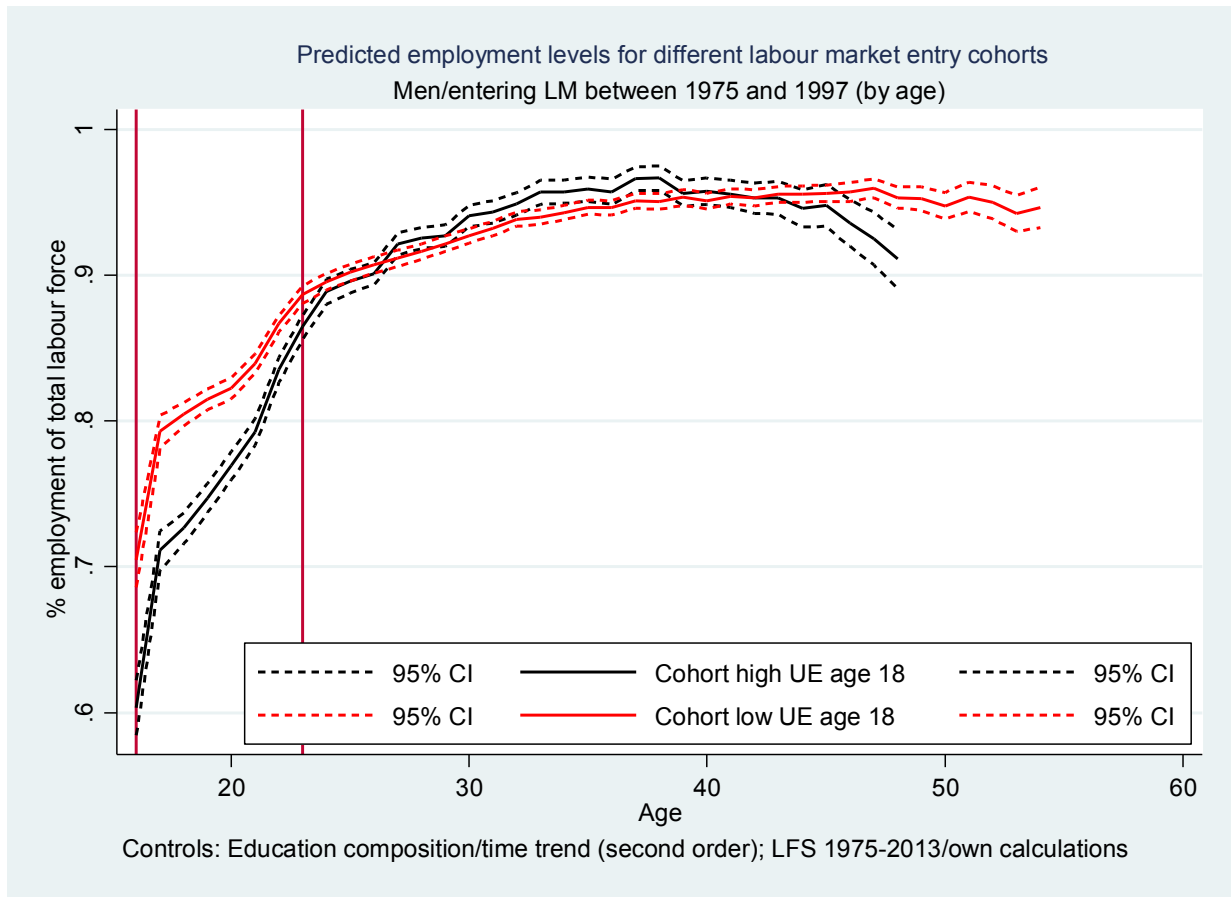
We find significant effects from initially bad labour market conditions on subsequent life course trajectories confirming the “scarring” from NCDS data (Gregg 2001). However, our analysis suggests that:

- Trajectories differ only in early adult life (Male ≤ 22 /Female ≤ 26) and converge;
- In contrast to Gregg (2001), effects are less substantial for men, but this could result from not including inactivity in our analysis, which was decided because the inactivity status in LFS is not as informative as in the NCDS.

¹ Defined as above 75th percentile of all unemployment rates observed for the cohorts 1959-1997 when aged 18

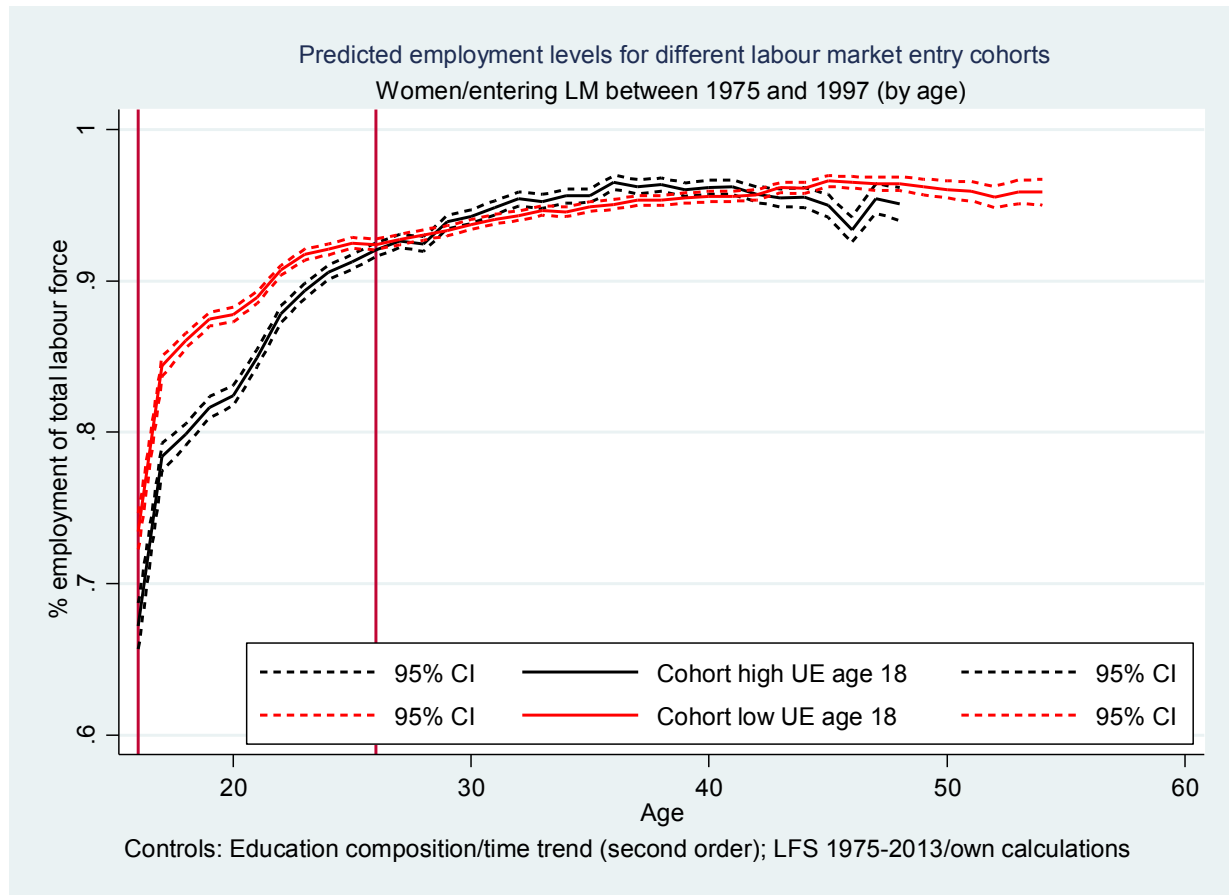
² Similar effects for particular cohorts such as the 1967 birth cohort, which was affected by the structural weaknesses of the youth labour market in the 1980s, cannot be obtained due to the identity cohort, age and time effects for individual cohorts.

Figure 4: Effects of cohorts experiencing high youth unemployment on labour market trajectories, men



Source: LFS and own calculations

Figure 5: Effects of cohorts experiencing high youth unemployment on labour market trajectories, women



Source: LFS and own calculations

3.5 Main conclusions

We find evidence of a “scarring” effect resulting from youth unemployment in early adult life until people are in their 20s - that is, higher unemployment and lower earnings in their adult lives compared with people making “good” initial transitions to the labour market. This has clear implications for individual wellbeing well beyond the experience of youth unemployment itself, including reduced life time earnings and likely effects on family formation, savings and pensions. Therefore, a counter-cyclical intervention to avoid excessive youth unemployment remains an important policy field.

In the light of this, we believe Gregg’s (2001) main conclusion that improving (vocational) education investment is the key variable to help people make good transitions remains the main policy conclusion for BIS and the provision of high quality vocational education is the main instrument to achieve this.

This conclusion is supported by further analysis of the British data from the EU Labour Force Survey module on youth transitions from 2009, which underlines the importance of early and continuous labour market experience, both before and during further education, and of vocational education in the workplace for long-term labour market success.

A further conclusion, and much in line with the findings from the literature review we carried out at the onset of the project, is therefore to help young people gain labour market experience to achieve long-term labour market success. This could be achieved by additional regulatory reform of further education to include work experience more explicitly, or by further developing formats linking post-16 education programmes better with practical activities, as with the recently started “Traineeship” programme.

3.6 Limitations

In addition to identifying current patterns in transition pathways and investigating their implications for the future labour market success and welfare of young people, we also aimed to investigate the types of learning and employment young people are involved in, whether they frequently switch between statuses and what the implications of this would be for their long-term labour market outcomes.

- This research made use of the available cohort studies (NCDS, BCS, YCS and LSYPE) analysing the sequences of young people’s early labour market experiences and longer-term outcomes. Based on BCS and NCDS, we found that groups with difficult trajectories increased, in particular as people from these cohorts, who started employment soon after the end of secondary school experienced unemployment in their mid-20s. The growing cluster of people continuing to invest in education was not similarly affected by unemployment in their early 20s. Following extended education, these people made successful and sustainable transitions until their mid-20s.
- Finally, we analysed the education and labour market sequences of a recent cohort of people after obtaining GCSEs based on a merged dataset of the National Pupil Data and the National Client Casework Information System (NCCIS). As was found in other studies, including Dorsett and Lucchino (2013), more than 90 per cent of the cohort experienced unproblematic transitions in the years directly after their GCSEs and had not had any NEET experiences until the age of about 19, while a duration analysis shows the importance of education and further individual characteristics on making successful transitions.

As a summary, while we found evidence of scarring of youth unemployment, we cannot consider the impact of the quality of the education and labour market experiences on life course employment trajectories. This is disappointing as one of our objectives was to provide BIS with such findings, so that our research feeds into the further reform of vocational education. However, a database combining variables on the quality of young people’s employment and vocational education and labour market outcomes until their mid-20s is currently not available and remains a recommendation for further research.

4 Options for further research on long-term outcomes of youth transitions

One key recommendation from our research is to make use of alternative data, in particular merged administrative data with relevant characteristics on young people after leaving compulsory education with information about the quality of education and work experience and long-term outcomes.

Data would need to include time varying individual and family characteristics to avoid estimates on the causal relationship between youth transition and outcomes being affected by omitted variables and causing a further potential source of bias.

We suggest exploring the following two options:

- Combining the cohort studies (LSYPE and YCS) with long-term labour market outcomes from the Work and Pensions Longitudinal Study (WPLS). Although there would still be limitations in terms of understanding the type of learning and/or employment people might be involved in, the cohort studies offer variables on the quality of the education and important individual characteristics like motivation, expectations and family background.
- Alternatively, biographies could be “traced” through a longitudinal combination of NPD data combined with a universe of Individualised Learner Records (ILR) and the WPLS for a cohort of school leavers in the mid-2000s, for which outcomes in the cohort’s 20s and thus following initial youth transitions would be observed. However, while data of this nature will be made available through the new Centre for Vocational Education Research (CVER), which BIS created, such data would have limitations for understanding the motivations and attitudes of young people and the process of making initial transitions.

Compared to this, other options for further research are unlikely to extend the impact of youth transitions on adult employment: For example, adding labour market outcomes in later life from LFS data to YCS and LSYPE cohorts would suffer from limitations as many variables in cohort studies, in particular on attitudes, cannot be mapped to LFS data. Similarly, further research exploiting the module on youth transitions from the EU Labour Force Survey in 2009 would be limited as only the final transition from education to employment can be analysed, but not the full dynamic of work and education experiences after the end of secondary schooling.

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