

**Breakout sessions:**  
**Labour market outcomes**  
*Chaucer*

15:50-17:10

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# Downward mobility, opportunity hoarding and the 'glass floor'

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# Background

- The study of social mobility has traditionally tended to focus on measuring rates, changes in these rates over time and international rankings.
- More recently studies have looked beyond single summary measures at variation in rates across a distribution.
- There has tended to be a focus on upward mobility.
- Recently attention has shifted to exploring advantage. Stubbornly high levels of inequality, increasing shares of income and wealth held by an elite group, concern about the hoarding of opportunities in top professions have led many to question how advantage is transmitted across generations.
- A study for the US has shown evidence of a 'glass floor' whereby those from advantaged family backgrounds are found to be more likely to be high earners than cognitive skill assessments predict (Reeves and Howard, 2014).
- Some commentators have long noted the paradox that many call for higher social mobility without regard for the less politically palatable fact that for relative upward mobility to increase so too must downward mobility.

# Research Questions

- Is there evidence of a 'glass floor' in the UK?
- What factors enable well-off parents effectively to construct a glass floor and limit potential downward mobility?
- Is there evidence that opportunities are 'hoarded' by advantaged families?

# Methodology and Data

- Track the progress of children through to labour market outcomes at age 42.
- Delineate children by family social and economic background. Compare the outcomes of children with initially high and initially low cognitive skills by family background.
- Seek to identify what factors partially or fully account for social and economic gradients in labour market success.
- BCS70 - Information from the birth, age 5, age 10 and age 16 surveys to measure family background, cognitive skills, social and emotional skills, and schooling.
- To assess adult success we use information on employee earnings and self-employed income, and occupation at age 42.

# Outcome measures

- **Top quintile of hourly labour income at age 42**

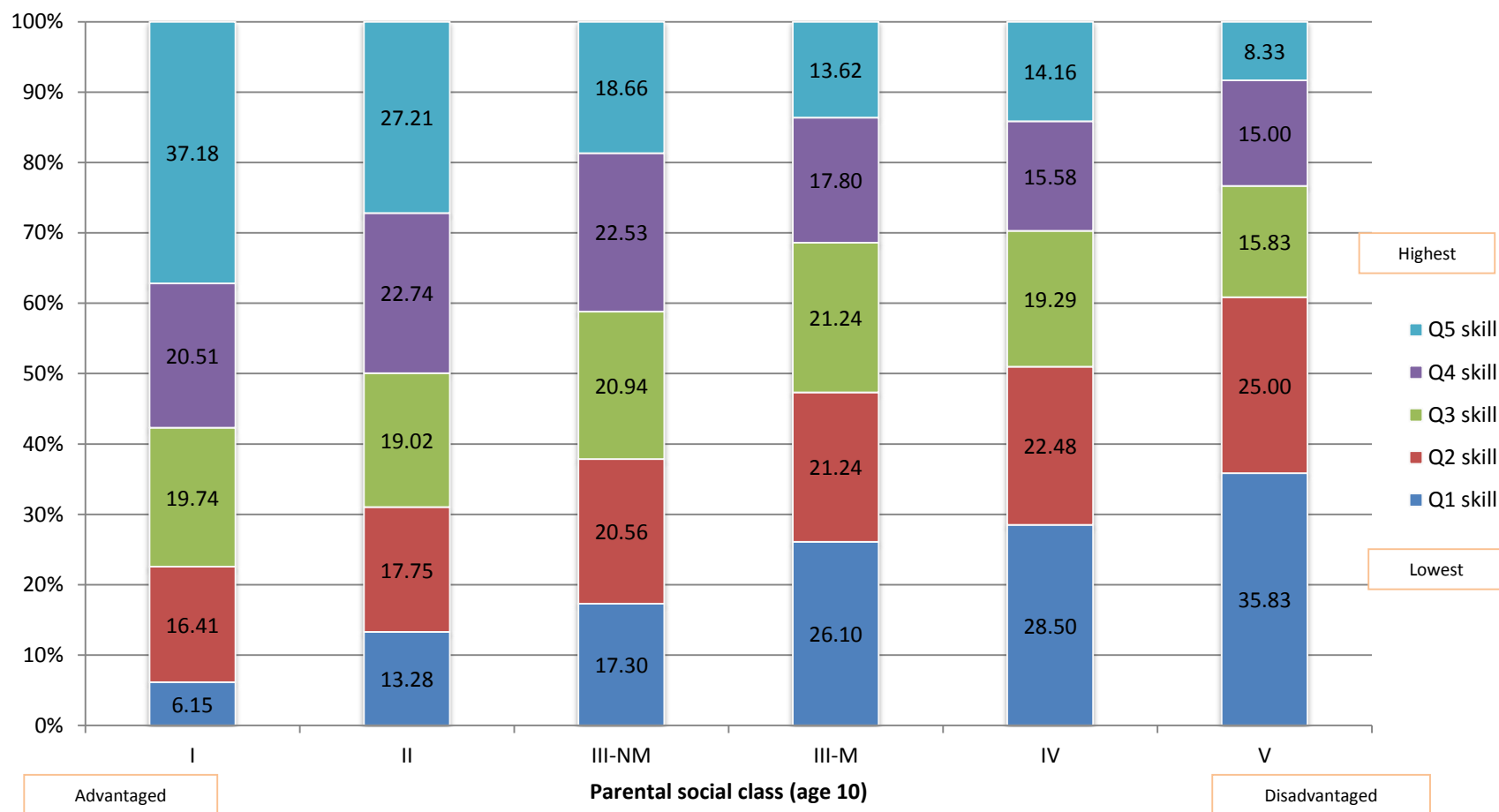
We also looked at high earnings for employees (only) and weekly as well as hourly measures

- **Top job – NS-SEC 1**

1.1 Large employers and higher managerial and administrative occupations

1.2 Higher professional occupations

# Social class and cognitive skills



Percent of cohort members from Social Class I (professionals) or the highest family income quintile in the top hourly earnings quintile age 42

|        | Social Class |                 |                 | Income |
|--------|--------------|-----------------|-----------------|--------|
|        | Parental     | Father's father | Mother's father | Family |
| Birth  | 44%          |                 |                 |        |
| Age 5  | 38%          | 41%             | 30%             |        |
| Age 10 | 40%          |                 |                 | 36%    |
| Age 16 | 40%          |                 |                 | 38%    |

Percent of cohort members from Social Class V (unskilled) or the lowest family income quintile in the top hourly earnings quintile age 42

|        | Social Class |                 |                 | Income |
|--------|--------------|-----------------|-----------------|--------|
|        | Parental     | Father's father | Mother's father | Family |
| Birth  | 8%           |                 |                 |        |
| Age 5  | 9%           | 16%             | 15%             |        |
| Age 10 | 7%           |                 |                 | 11%    |
| Age 16 | 10%          |                 |                 | 12%    |

# Accounting for social class and family income gradients - explanatory variables

- Parental education (age 5)
- Maths and reading aptitude (age 10)
- Social and emotional skills (age 10)
  - Self-esteem
  - Locus of control
  - Behavioural problems
- Type of secondary school attended
- Highest educational qualifications

# Sample characteristics

|                              |                        | High skill | Low skill |
|------------------------------|------------------------|------------|-----------|
| Parental education (highest) | No qualification (ref) | 0.23       | 0.43      |
|                              | Vocational ed          | 0.12       | 0.14      |
|                              | O levels               | 0.24       | 0.22      |
|                              | A levels               | 0.12       | 0.07      |
|                              | SRN                    | 0.02       | 0.02      |
|                              | Cert ed                | 0.03       | 0.01      |
|                              | Degree +               | 0.23       | 0.09      |
|                              | Other                  | 0.01       | 0.01      |
| Reading aptitude age 10      | Q1 lowest (ref)        | 0.07       | 0.27      |
|                              | Q2                     | 0.11       | 0.20      |
|                              | Q3                     | 0.21       | 0.20      |
|                              | Q4                     | 0.18       | 0.11      |
|                              | Q5 highest 10          | 0.28       | 0.09      |
| Maths aptitude age 10        | Q1 lowest (ref)        | 0.07       | 0.27      |
|                              | Q2                     | 0.12       | 0.21      |
|                              | Q3                     | 0.18       | 0.15      |
|                              | Q4                     | 0.22       | 0.14      |
|                              | Q5 highest             | 0.26       | 0.09      |

Outcome:  
High  
earnings  
at age 42

| Early low attainers     | Average marginal effects | Model 1   |  | Model 2   |  | Model 3   |  |
|-------------------------|--------------------------|-----------|--|-----------|--|-----------|--|
| Family income age 10    | Q1 low (ref)             |           |  |           |  |           |  |
|                         | Q2                       | 0.032     |  | 0.012     |  | 0.006     |  |
|                         | Q3                       | 0.041     |  | 0.011     |  | 0.006     |  |
|                         | Q4                       | 0.076 *** |  | 0.021     |  | 0.016     |  |
|                         | Q5 high                  | 0.127 *** |  | 0.031     |  | 0.011     |  |
| Parental qualification  | No qual (ref)            |           |  |           |  |           |  |
|                         | Voc ed                   |           |  | 0.005     |  | 0.004     |  |
|                         | O levels                 |           |  | 0.069 *** |  | 0.042 **  |  |
|                         | A levels                 |           |  | 0.040     |  | 0.008     |  |
|                         | Degree +                 |           |  | 0.127 *** |  | 0.062 **  |  |
| Maths aptitude age 10   | Q1 low (ref)             |           |  |           |  |           |  |
|                         | Q2                       |           |  | 0.071 *** |  | 0.064 **  |  |
|                         | Q3                       |           |  | 0.094 *** |  | 0.076 *** |  |
|                         | Q4                       |           |  | 0.126 *** |  | 0.097 *** |  |
|                         | Q5 high                  |           |  | 0.167 *** |  | 0.108 *** |  |
| Locus of control age 10 | Q1 low (ref)             |           |  |           |  |           |  |
|                         | Q2                       |           |  | 0.007     |  | -0.006    |  |
|                         | Q3                       |           |  | 0.066 **  |  | 0.048 *   |  |
|                         | Q4                       |           |  | 0.048 *   |  | 0.031     |  |
|                         | Q5 high                  |           |  | 0.042     |  | 0.021     |  |
| Secondary school type   | Comprehensive (ref)      |           |  |           |  |           |  |
|                         | Grammar                  |           |  |           |  | 0.092 **  |  |
|                         | Secondary modern         |           |  |           |  | -0.008    |  |
|                         | Private                  |           |  |           |  | 0.112 *** |  |
| Highest qual level      | None (ref)               |           |  |           |  |           |  |
|                         | GCSE or less             |           |  |           |  | -0.029    |  |
|                         | A Level                  |           |  |           |  | 0.001     |  |
|                         | FE or HE (vocational)    |           |  |           |  | 0.061 **  |  |
|                         | Degree+ (academic)       |           |  |           |  | 0.165 *** |  |

Outcome:  
High  
earnings  
at age 42

| Early high attainers    | Average marginal effects | Model 1 |     |  | Model 2 |     |  | Model 3 |     |
|-------------------------|--------------------------|---------|-----|--|---------|-----|--|---------|-----|
| Family income age 10    | Q1 low (ref)             |         |     |  |         |     |  |         |     |
|                         | Q2                       | 0.016   |     |  | 0.005   |     |  | -0.001  |     |
|                         | Q3                       | 0.074   | **  |  | 0.038   |     |  | 0.020   |     |
|                         | Q4                       | 0.130   | *** |  | 0.077   | **  |  | 0.071   | **  |
|                         | Q5 high                  | 0.217   | *** |  | 0.115   | *** |  | 0.080   | **  |
| Parental qualification  | No qual (ref)            |         |     |  |         |     |  |         |     |
|                         | Voc ed                   |         |     |  | 0.105   | *** |  | 0.081   | **  |
|                         | O levels                 |         |     |  | 0.065   | **  |  | 0.037   |     |
|                         | A levels                 |         |     |  | 0.087   | **  |  | 0.054   |     |
|                         | Degree +                 |         |     |  | 0.114   | *** |  | 0.024   |     |
| Maths aptitude age 10   | Q1 low (ref)             |         |     |  |         |     |  |         |     |
|                         | Q2                       |         |     |  | 0.125   | **  |  | 0.097   |     |
|                         | Q3                       |         |     |  | 0.190   | *** |  | 0.149   | *** |
|                         | Q4                       |         |     |  | 0.203   | *** |  | 0.154   | *** |
|                         | Q5 high                  |         |     |  | 0.305   | *** |  | 0.218   | *** |
| Locus of control age 10 | Q1 low (ref)             |         |     |  |         |     |  |         |     |
|                         | Q2                       |         |     |  | 0.039   |     |  | 0.021   |     |
|                         | Q3                       |         |     |  | 0.088   | **  |  | 0.065   | *   |
|                         | Q4                       |         |     |  | 0.098   | *** |  | 0.047   |     |
|                         | Q5 high                  |         |     |  | 0.079   | **  |  | 0.035   |     |
| Secondary school type   | Comprehensive (ref)      |         |     |  |         |     |  |         |     |
|                         | Grammar                  |         |     |  |         |     |  | -0.002  |     |
|                         | Secondary modern         |         |     |  |         |     |  | 0.040   |     |
|                         | Private                  |         |     |  |         |     |  | 0.107   | *** |
| Highest qual level      | None (ref)               |         |     |  |         |     |  |         |     |
|                         | GCSE or less             |         |     |  |         |     |  | -0.052  |     |
|                         | A Level                  |         |     |  |         |     |  | 0.015   |     |
|                         | FE or HE (vocational)    |         |     |  |         |     |  | 0.054   |     |
|                         | Degree+ (academic)       |         |     |  |         |     |  | 0.239   | *** |

Outcome:  
Top job

| Early high attainers         | Average marginal effects | Model 1 |     |  | Model 2 |     |  | Model 3 |     |
|------------------------------|--------------------------|---------|-----|--|---------|-----|--|---------|-----|
| Parental social class age 10 | SC I                     | 0.221   | *** |  | 0.080   | **  |  | 0.047   |     |
|                              | SC II                    | 0.158   | *** |  | 0.077   | *** |  | 0.062   | **  |
|                              | SC III-M (ref)           | 0.076   | *** |  | 0.024   |     |  | 0.023   |     |
|                              | SC IV                    | -0.059  |     |  | -0.058  |     |  | -0.047  |     |
|                              | SC V                     | -0.238  | *   |  | -0.128  |     |  | -0.098  |     |
| Parental qualification       | No qual (ref)            |         |     |  |         |     |  |         |     |
|                              | Voc ed                   |         |     |  | 0.106   | *** |  | 0.082   | *** |
|                              | O levels                 |         |     |  | 0.073   | *** |  | 0.042   |     |
|                              | A levels                 |         |     |  | 0.083   | **  |  | 0.057   | *   |
|                              | Degree +                 |         |     |  | 0.114   | *** |  | 0.033   |     |
| Maths aptitude age 10        | Q1 low (ref)             |         |     |  |         |     |  |         |     |
|                              | Q2                       |         |     |  | 0.129   | **  |  | 0.099   | *   |
|                              | Q3                       |         |     |  | 0.190   | *** |  | 0.154   | *** |
|                              | Q4                       |         |     |  | 0.194   | *** |  | 0.150   | *** |
|                              | Q5 high                  |         |     |  | 0.293   | *** |  | 0.215   | *** |
| Locus of control age 10      | Q1 low (ref)             |         |     |  |         |     |  |         |     |
|                              | Q2                       |         |     |  | 0.057   | *   |  | 0.035   |     |
|                              | Q3                       |         |     |  | 0.093   | **  |  | 0.068   | *   |
|                              | Q4                       |         |     |  | 0.107   | *** |  | 0.056   | *   |
|                              | Q5 high                  |         |     |  | 0.086   | *** |  | 0.039   |     |
| Secondary school type        | Comprehensive (ref)      |         |     |  |         |     |  |         |     |
|                              | Grammar                  |         |     |  |         |     |  | -0.009  |     |
|                              | Secondary modern         |         |     |  |         |     |  | 0.029   |     |
|                              | Private                  |         |     |  |         |     |  | 0.105   | *** |
| Highest qual level           | None (ref)               |         |     |  |         |     |  |         |     |
|                              | GCSE or less             |         |     |  |         |     |  | -0.056  |     |
|                              | A Level                  |         |     |  |         |     |  | 0.000   |     |
|                              | FE or HE (vocational)    |         |     |  |         |     |  | 0.039   |     |
|                              | Degree+ (academic)       |         |     |  |         |     |  | 0.218   | *** |

# Predicted probabilities – high earner

|                                |                  | Low attainers |         | High attainers |          |
|--------------------------------|------------------|---------------|---------|----------------|----------|
|                                |                  | Male          | Female  | Male           | Female   |
| Family income                  | Income Q1        | 14%(14%)      | 6%(6%)  | 25%(23%)       | 12%(12%) |
|                                | Income Q5        | 16%(31%)      | 7%(17%) | 35%(48%)       | 19%(32%) |
| Parents' highest qualification | No qualification | 13%           | 5%      | 26%            | 12%      |
|                                | Degree           | 22%           | 10%     | 29%            | 14%      |
| Secondary school               | Comprehensive    | 15%           | 6%      | 28%            | 14%      |
|                                | Private          | 33%           | 18%     | 43%            | 25%      |
| Highest qualification          | No qualification | 12%           | 5%      | 19%            | 9%       |
|                                | Degree           | 40%           | 23%     | 52%            | 33%      |

# Summary

- We find social and economic gradients in family background in terms of the likelihood that individuals will be high earners or in a top job at age 42
- These gradients are observed within early cognitive skill groups (low attainers and high attainers)

# Accounting for social gradients in career success

## **Positive and significant**

- Parental education; particularly graduate qualification is positive and significant
- Maths aptitude at age 10
- Locus of control at age 10
- Grammar or private secondary school
- Educational attainment (in particular degree)

## **Negative and significant**

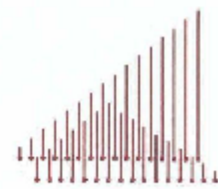
- Moderate and severe behavioural problems (age 10)

# Taking all of these factors into consideration...

- We find that due to the advantageous position of initially ***low attaining*** children from higher income and social class backgrounds we can largely account for social and economic gradients
- For initially ***high attaining*** children social and economic background differences remain 'unexplained'. This shows that initially low attaining children from less advantaged backgrounds are less successful at, or less able to, convert high early potential into career success.

# Conclusions

- We find evidence suggesting that children from higher income and social class backgrounds hoard opportunities in schools and subsequently in the labour market.
- A range of factors and influences help to limit downward mobility among advantage children with early low cognitive skills.
- In an era where “room at the top” is not expanding, policy makers serious about increasing upward mobility for children from less advantaged backgrounds will need to address barriers that are preventing them from reaching their full potential and remove barriers that block downward mobility.



National Institute  
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# What young English people do when they reach school-leaving age: a cross-cohort comparison for the last 30 years

Jake Anders & Richard Dorsett

CLOSER conference

30 November 2015

# Estimating the impact of health on NEET status

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\*Daniel Gladwell is funded by the University of Sheffield Faculty Scholarship.

# Outline

- Background
- Model of ability formation
- Data
- Results
- Conclusion

# Background

- NEET: young people **N**ot in **E**ducation, **E**mployment or **T**raining
- In 2014 **9.5%** of the 15-19 year olds were classified as NEET in the UK
  - Equivalent figure for OECD was 7.2%
- *Why is this important?*

# Consequences of being NEET (1)

- Those who leave full time education early are unlikely to return to it *(Dickerson and Jones, 2004)*
- Lower educational attainment is associated with
  - lower **pecuniary** outcomes such as lifetime wealth and consumption *(Card, 1999 and 2001)*
  - lower **non-pecuniary** outcomes regarding adult health, marriage and parenting style *(Oreopoulos and Salvanes, 2014)*

# Consequences of being NEET (2)

- Lower attachment to the labour market in the long term  
*(Bell and Blanchflower, 2011)*
- Lower earnings later in life  
*(Gregg and Tominey, 2005; Mroz and Savage, 2006)*
- There are associated **societal costs**:
  - For the UK estimated public finance cost of NEET, based on 2008 figures, is £12 billion:
    - benefits and lost tax revenues
    - costs for the health and criminal justice systems*(Coles et al. 2010)*

# Understanding NEET status

- NEET (in literature) is modelled as a static concept

$$\text{NEET}_t = f ( X )$$

- Either as a binary or a categorical variable
- $X$ : vector of all current and past factors, which determine NEET status at time  $t$

# Determinants of NEET status

Often discussed in literature:

- earlier academic attainment of the young person (YP)
- health of the YP (*inferred from impact on test scores*)
- parental socioeconomic status
- aspirations and attitudes, both of the parents and the YP
- neighbourhoods
- macroeconomic conditions

# This paper

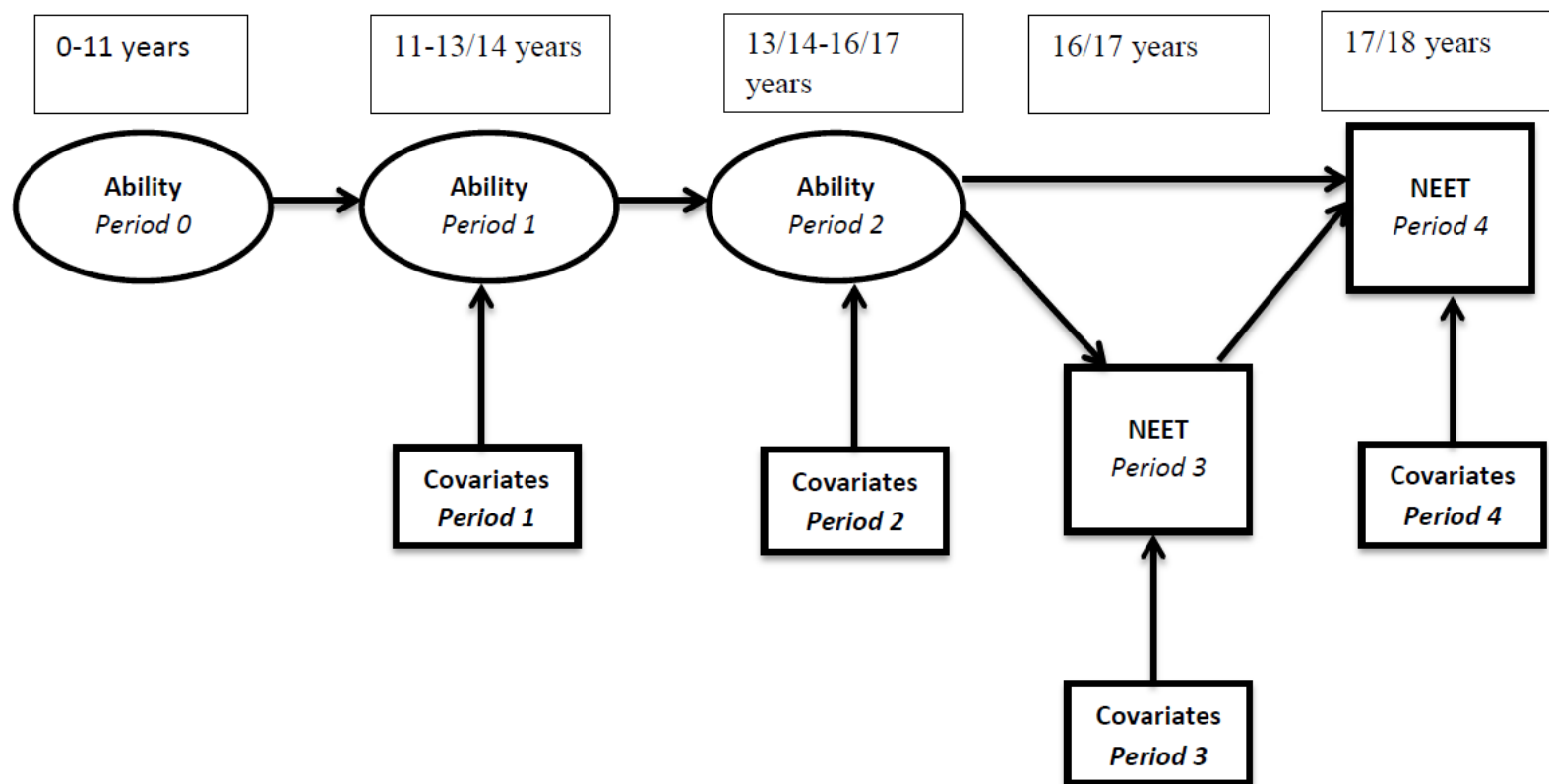
- We estimate a dynamic model of ability formation *(Cunha and Heckman, 2007)*
  - Relative importance of the different determinants of NEET status and the stage of a YP's life when these factors have the biggest impact
  - Ours is the first study that looks at the impact of both physical and mental health on NEET status within the same framework.

# This paper

- We use a Structural Equation Model (SEM)
  - The methodology allows us to address the issue of **measurement error** in estimating **ability** and **mental health**
  - It also allows inferences (both direct and indirect) to be made about:
    - an individual's ability at a point in time
    - determinants of ability and NEET status through time

# Data

- Longitudinal Survey of Young People in England (LSYPE)
  - The study follows a cohort of approximately 15,500 YP in English secondary schools
  - The main aim of the study was to provide evidence on the factors central to individuals' educational progress and attainment
  - First wave (2004), participants were aged 13/14 years
  - The survey was conducted annually; **we use first five waves**
  - By wave 5 (2008) the individuals were aged 17/18 years



- **Ability**
  - Assumed to be latent
  - Different tests that YP takes are used as indicators
- **NEET**
  - Observed variable
  - Binary variable
- **Initial conditions**
  - Birthweight, gestation, ethnicity, mother's qualifications

- **Covariates**

- Health
  - general health and mental health
  - mental health and ability – endogeneity
  - mental health – a latent variable
- Household socioeconomic status
- Aspirations
  - both of the YP and their parents
- Local index of multiple deprivations

# Results: Ability

- Evidence of ‘self-productivity’ in ability formation
- Poor general health is correlated with lower levels of ability
- Past mental health is an important predictor of ability – only for girls
- Other covariates:
  - Lower socioeconomic status, deprived neighbourhood and non-white ethnicity all have a negative impact on ability formation
  - Aspirations are positively correlated with ability

| Dependent Variable | Explanatory Variable                           | Girls    | Boys     |
|--------------------|--|----------|----------|
| Ability (t=1)      | <b>Latent Variables</b>                        |          |          |
|                    | Past Ability                                   | 0.84***  | 0.83***  |
|                    | <b>Observed Variables - contemporaneous</b>    |          |          |
|                    | Illness: not affecting schooling               | -0.15*   | 0.08     |
|                    | Illness: affecting schooling                   | -0.66*** | -0.66*** |
|                    | Parental rating of school                      | 0.09***  | 0.09***  |
|                    | Parental rating of teachers                    | 0.13***  | 0.05*    |
|                    | Household Socioeconomic Status                 | 0.11***  | 0.11***  |
|                    | <b>Observed Variables – initial conditions</b> |          |          |
|                    | Birth weight                                   | 0.00     | 0.04*    |
|                    | Weeks born early                               | 0.01     | 0.03     |
|                    | School year month                              | 0.10***  | 0.10***  |
|                    | Mother's Highest Qualification                 | 0.15***  | 0.17***  |
|                    | Ethnicity                                      | -0.21*** | -0.53*** |
| Ability (t=2)      | <b>Latent Variables</b>                        |          |          |
|                    | Past Ability                                   | 0.80***  | 0.81***  |
|                    | Past Mental Health Difficulties                | -0.10*** | -0.01    |
|                    | <b>Observed Variables - past</b>               |          |          |
|                    | University plans                               | 0.12***  | 0.11***  |
|                    | Parent thinks YP will do                       | 0.11***  | 0.10***  |
|                    | Parent would like YP to do                     | 0.01     | 0.05*    |
|                    | <b>Observed Variables - contemporaneous</b>    |          |          |
|                    | Young person's health                          | -0.06**  | -0.11*** |
|                    | Household Socioeconomic Status                 | 0.11***  | 0.07*    |
|                    | Local Index of Multiple Deprivation            | -0.20*** | -0.12*** |

# Results: NEET

- Period immediately after compulsory education ( $t=3$ ) (YP age: 16 / 17 years)
  - **Ability** has a negative impact on the probability of being NEET
  - **Aspirations** of the YP *to remain in education* is correlated with a significant reduction in the probability of being NEET
  - **General health** has **no** impact on NEET status

| Dependent Variable | Explanatory Variable                        | Girls    | Boys     |
|--------------------|---|----------|----------|
| NEET (t=3)         | <b>Latent Variables</b>                     |          |          |
|                    | Past Ability                                | -0.25*** | -0.23*** |
|                    | <b>Observed Variables - past</b>            |          |          |
|                    | University plans                            | -0.24*** | -0.26*** |
|                    | Parent thinks YP will do                    | -0.10*   | -0.13*** |
|                    | Parent would like YP to do                  | -0.02    | 0.02     |
|                    | <b>Observed Variables - contemporaneous</b> |          |          |
|                    | Illness not affecting daily activities      | -0.39    | -0.15    |
|                    | Illness affecting daily activities          | 0.08     | 0.05     |
|                    | Household Socioeconomic Status              | -0.09    | 0.04     |
|                    | <b>Observed Variable – time invariant</b>   |          |          |
|                    | Ethnicity                                   | -0.28    | -0.18    |
| NEET (t=4)         | <b>Latent Variables</b>                     |          |          |
|                    | Past Ability                                | -0.14*** | -0.06    |
|                    | Past Mental Health Difficulties             | 0.15***  | -0.08*   |
|                    | <b>Observed Variable - past</b>             |          |          |
|                    | NEET  | 0.34***  | 0.43***  |
|                    | <b>Observed Variable - contemporaneous</b>  |          |          |
|                    | Household Socioeconomic Status              | -0.15**  | -0.03    |
|                    | <b>Observed Variable – time invariant</b>   |          |          |
|                    | Ethnicity                                   | 0.21*    | -0.09    |

# Results: NEET

- NEET status in time period 4 ( $t = 4$ ), (YP age: 17 / 18 years)
  - **Persistence** in the NEET status
    - Degree of persistence is, however, lower than in the (static) probit specification
  - **For girls**
    - Controlling for NEET status at age 16/17, past ability has a negative impact on NEET status
    - Past **mental health** predicts NEET status

# Conclusion

- **Ability** plays a substantial role in protecting / exposing individuals to the risk of being NEET.
- Mother's education, Ethnicity and Aspirations are key predictors of NEET status
  - these factors work **indirectly** through the pathway of ability formation.
- **General health** affects accumulation of ability
  - it impacts NEET status indirectly only via ability.
- **Mental health** is an important predictor of NEET status (both directly and indirectly) - but only for girls

# Issues

- **Causality**
  - Conventional regression analysis establish association not causality
  - In SEM we 'assume' causality – can't be tested
- **Measurement error**
- **Attrition**
  - Is an issue – as in any other longitudinal analysis
- **Other potential data sets**
  - ALSPAC - however participants only from the Avon region

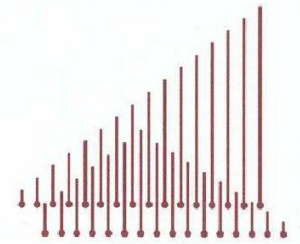
# **Closing plenary session**

## *Auditorium*

17:10-17:40

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National Institute  
of Economic and  
Social Research

# What young English people do when they reach school-leaving age: a cross-cohort comparison for the last 30 years

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CLOSER conference

30 November 2015

# Motivation and aims

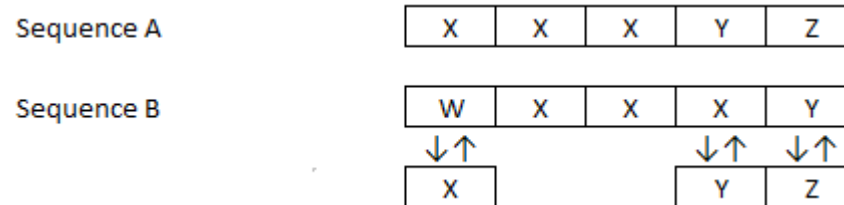
- A minority of young people do not achieve a successful transition from education into employment
- Although cyclical, there is also an important structural component
- Scarring (eg Gregg, 2001; Gregg & Tominey, 2005) implies potential for long-term personal and social costs
- This study aims to:
  - Document how young people's immediate post-school leaving age (SLA) transitions have changed over time
  - Examine how age-16 characteristics predict trajectories and whether these influences have themselves changed over time.

# Approach

- Sequence analysis to quantify the degree of similarity between 16-19 year-olds patterns of transition between four states :
  - Education,
  - Employment
  - Unemployed NEET
  - Inactive NEET
- Cluster analysis to identify groups of individuals with similar patterns
- Do this separately for four cohorts:
  - NCDS (born 1958)
  - BCS (born 1970)
  - YCS, sweep 8 (born 1980)
  - LSYPE (born 1990).
- Consider resulting groups in two ways:
  - Descriptively
  - Examining predictors of cluster membership

# An overview of sequence Analysis

- Take successive pairs of individuals
- Calculate number of substitutions needed to render one person's sequence the same as that of the other:



- States considered: employment, education, unemployed NEET, inactive NEET\*.
- (Dis)similarity measure calculated by summing the “costs” ascribed to each substitution.
- We give less common transition types a higher cost, on the logic that rarer transitions are likely to correspond to moves between more distinctive states

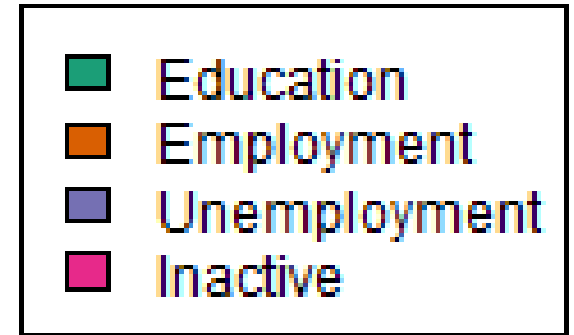
\* In LSYPE we are unable to distinguish between unemployed and inactive NEETs.

# Cluster Analysis

- Used to identify groups of people with broadly similar patterns.
- Technical details:
  - non-hierarchical “partitioning around medoids”
  - Some guidance from diagnostic measures (average ‘silhouette’ distance), but also desire to have intuitive groups
- Resulted in 7-cluster solutions in all cohorts
- Further aggregate into three broader groupings:
  - Entering the Labour Market
  - Accumulating Human Capital
  - Potential Cause for Concern

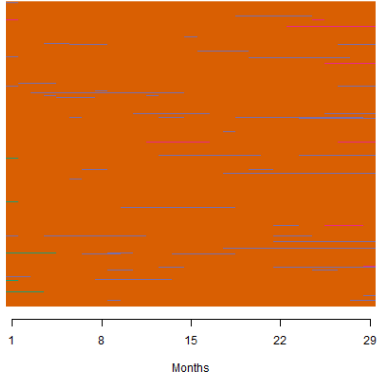
# Presenting results: index plots

- Colour-coded timeline of individuals' monthly status for all individuals within a cluster
- Depict full post-SLA histories for individuals in each cluster

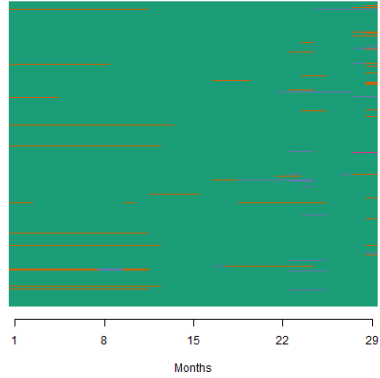


# NCDS

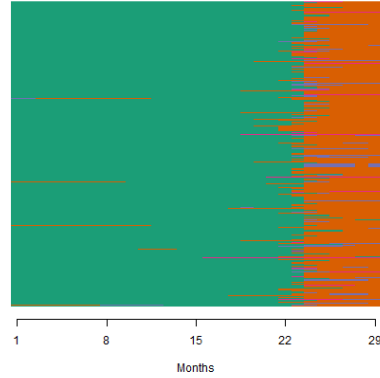
5787 of 8356 sequences



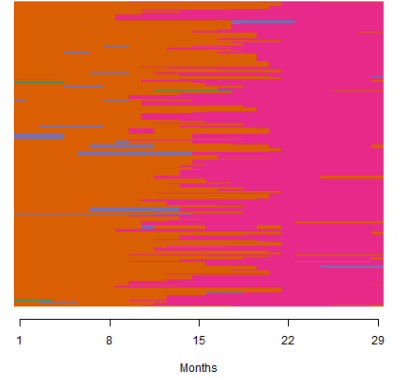
852 of 8356 sequences



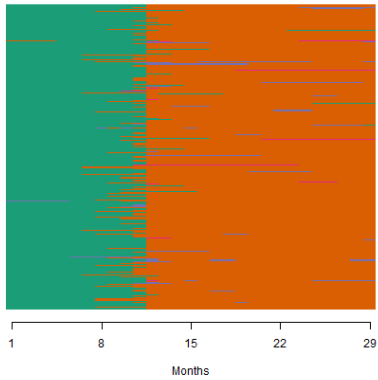
787 of 8356 sequences



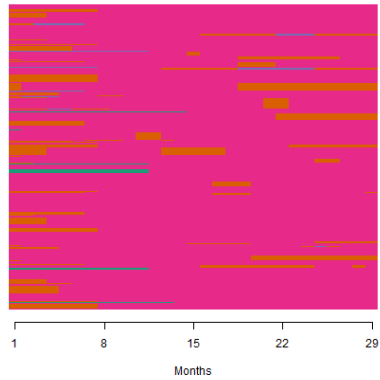
161 of 8356 sequences



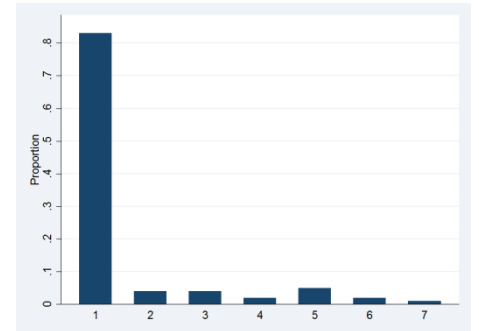
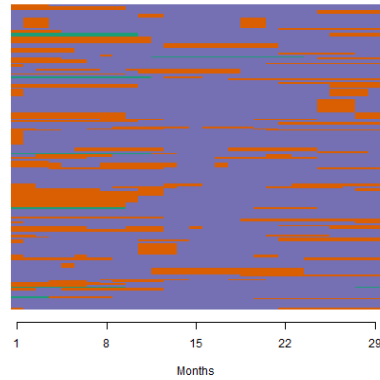
536 of 8356 sequences



134 of 8356 sequences

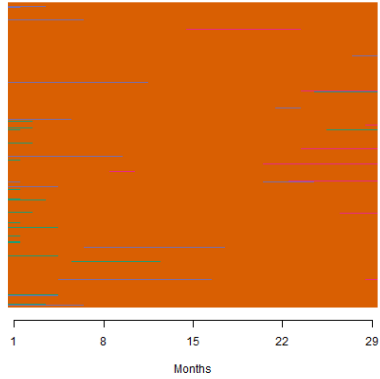


99 of 8356 sequences

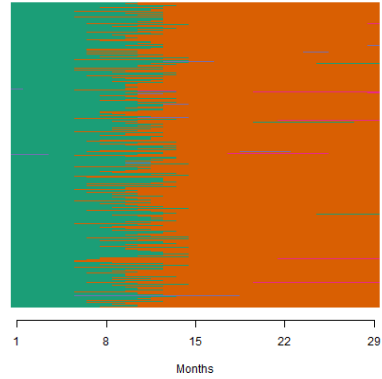


# BCS

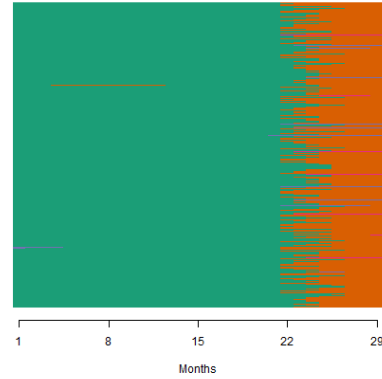
3947 of 9518 sequences



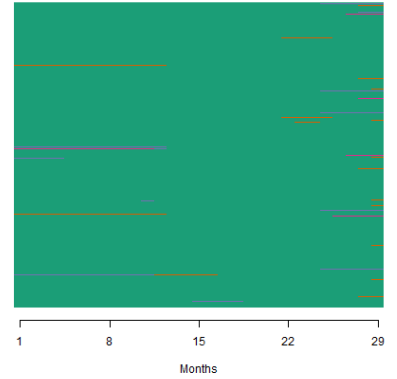
1133 of 9518 sequences



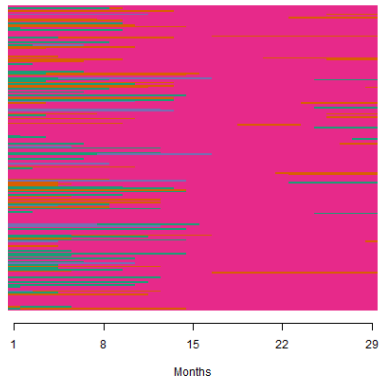
1370 of 9518 sequences



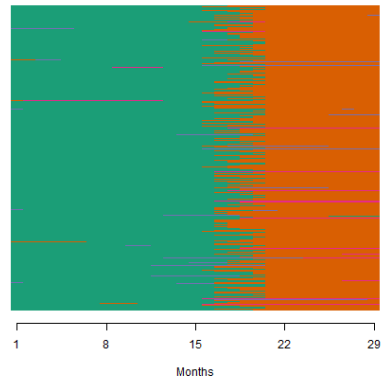
2282 of 9518 sequences



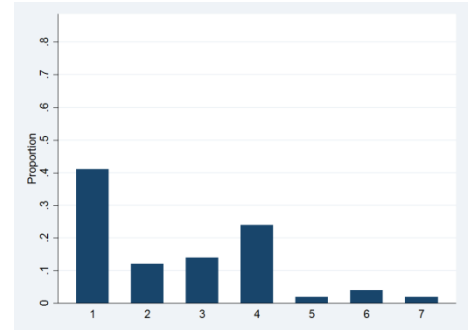
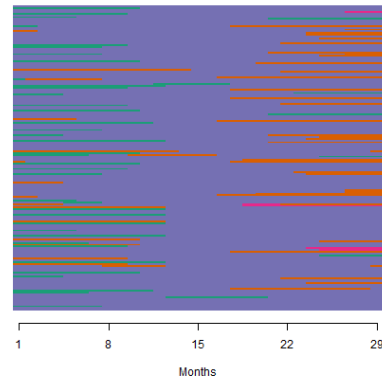
196 of 9518 sequences



417 of 9518 sequences

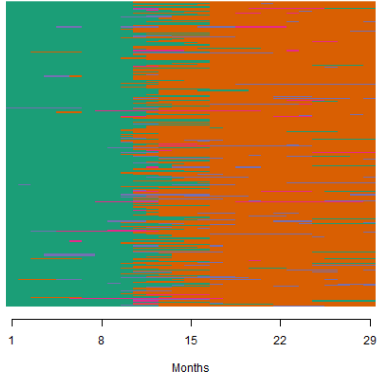


173 of 9518 sequences

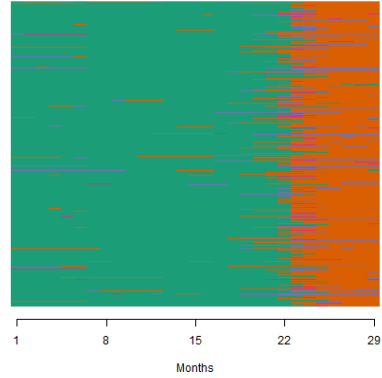


# YCS

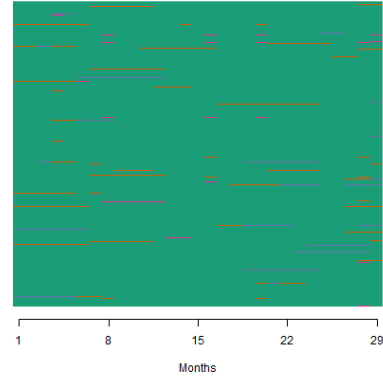
416 of 8682 sequences



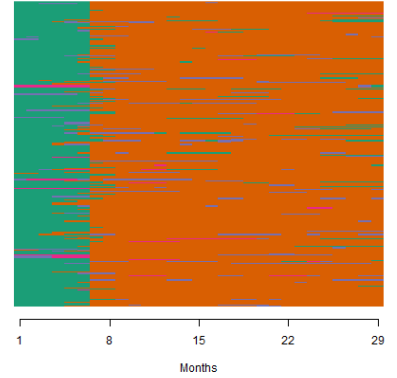
1843 of 8682 sequences



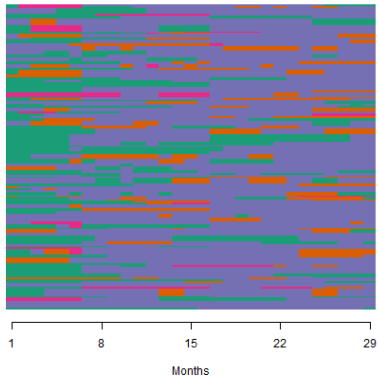
5408 of 8682 sequences



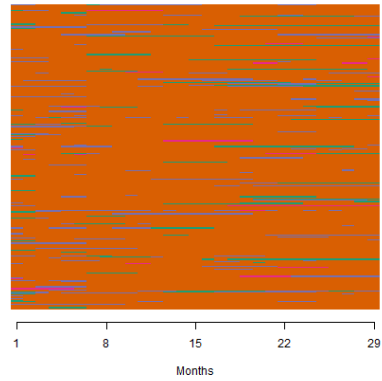
313 of 8682 sequences



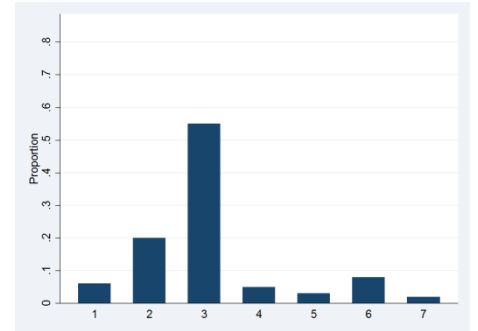
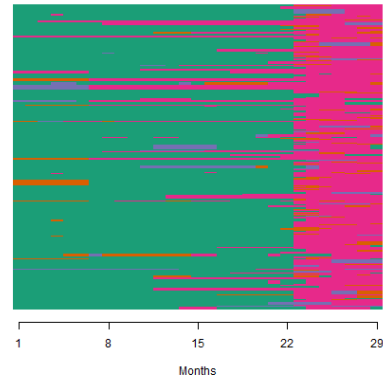
99 of 8682 sequences



384 of 8682 sequences

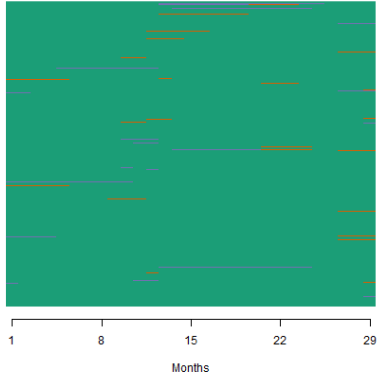


219 of 8682 sequences

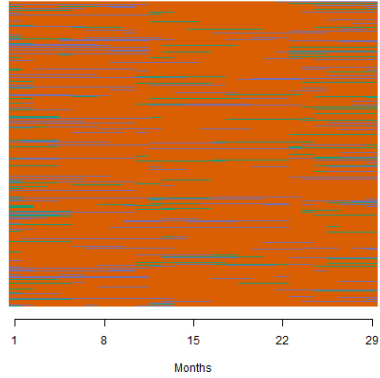


# LSYPE

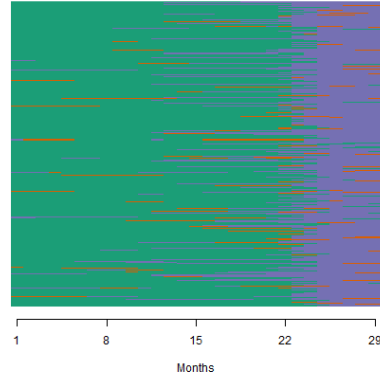
5399 of 9347 sequences



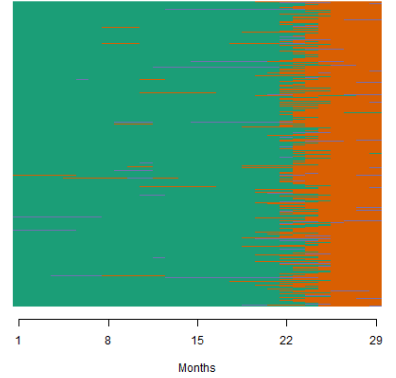
482 of 9347 sequences



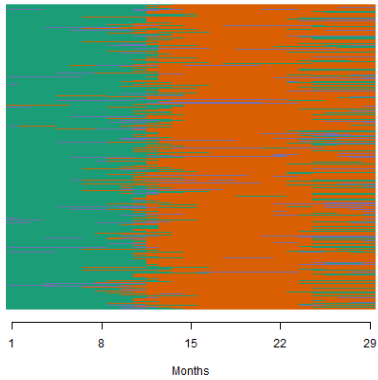
645 of 9347 sequences



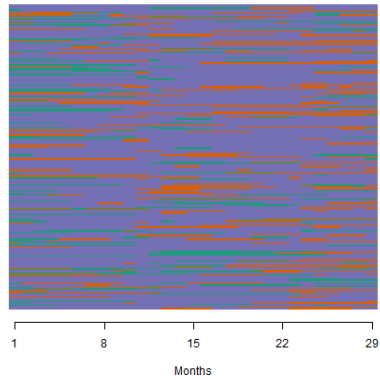
1433 of 9347 sequences



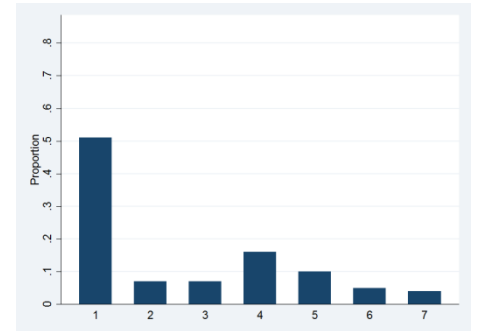
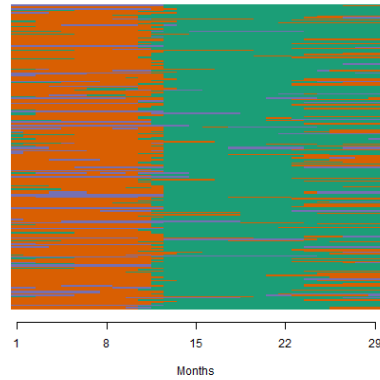
827 of 9347 sequences



309 of 9347 sequences



252 of 9347 sequences



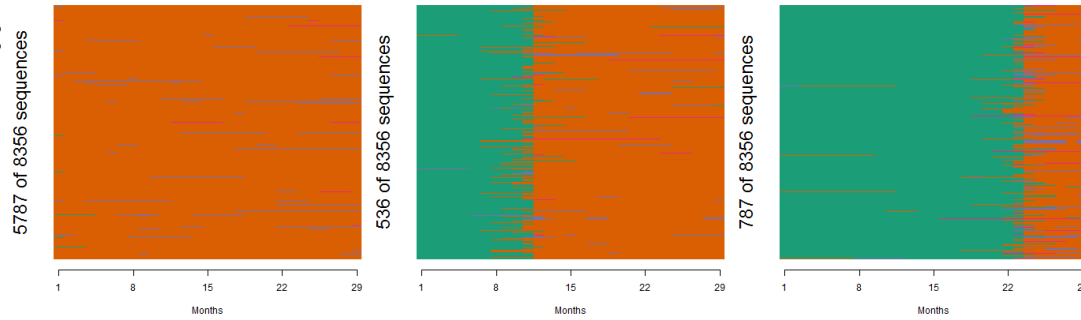
# How have the patterns changed over time?

- The proportion “Entering the labour market” has fallen from 91% in NCDS to 37% in YCS and LSYPE.
- The “Accumulating Human Capital” group has grown from 4% in the NCDS to around 50% in the YCS and LSYPE.
- The “Potential Cause for Concern” group has also grown, from 4-5% in the NCDS to 12% in the LSYPE.
  - In addition, those in later cohorts are much more likely to receive two additional years of education prior to becoming NEET.

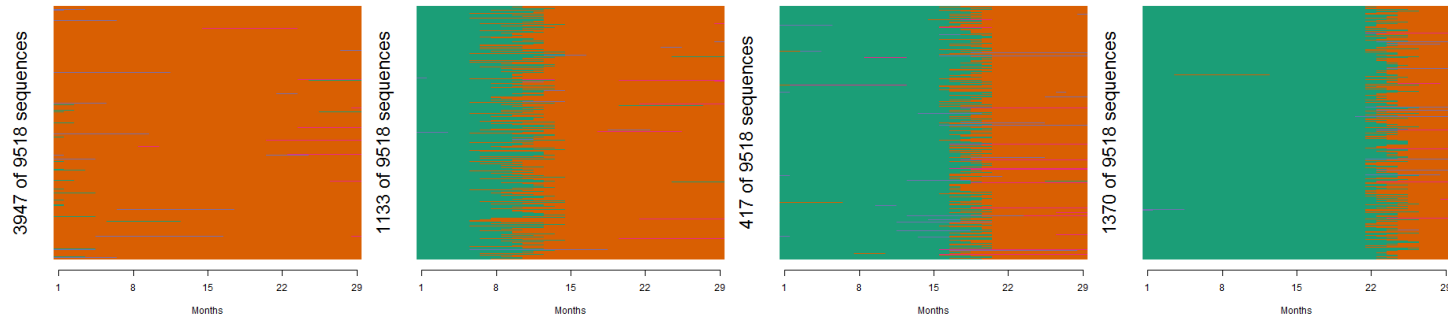
# “Entering Labour Market”



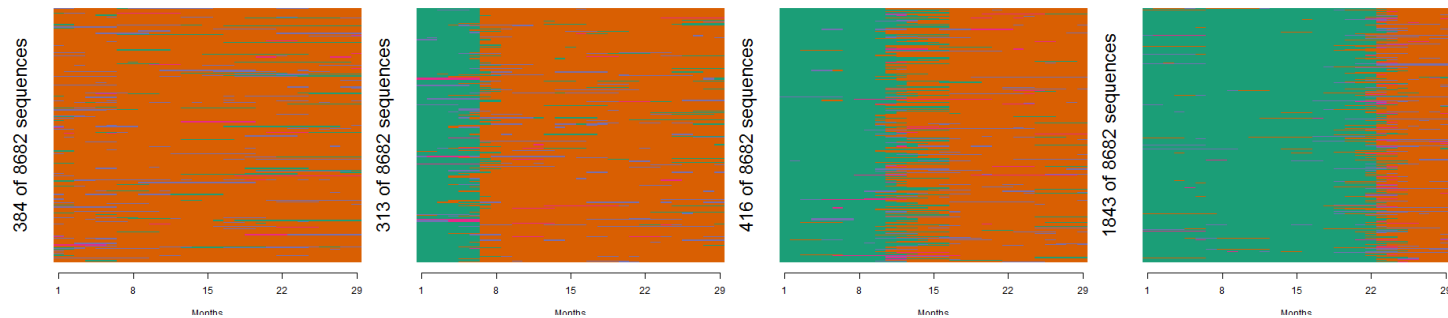
NCDS:  
91%



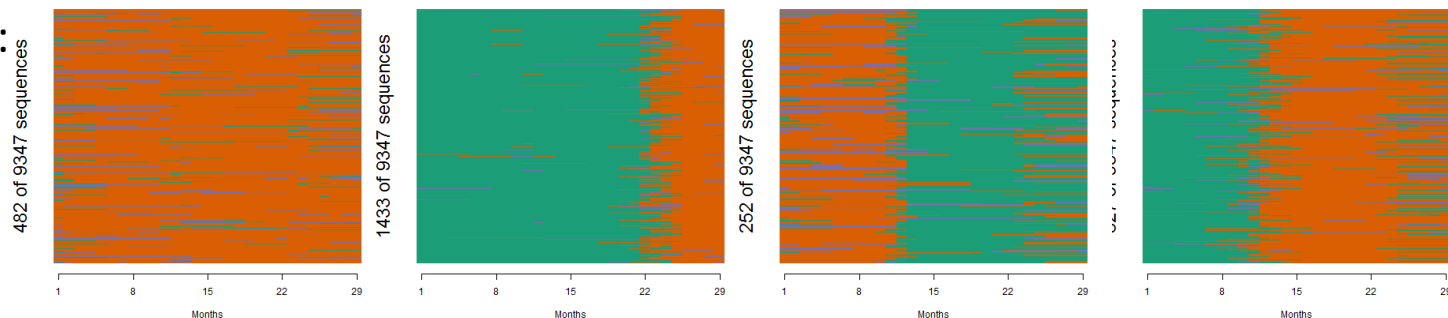
BCS:  
72%



YCS:  
40%



LSYPE:  
37%



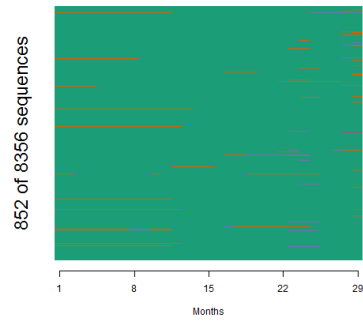
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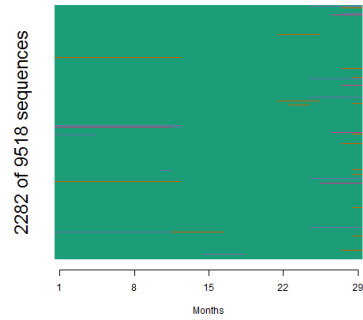
# “Accumulating Human Capital”



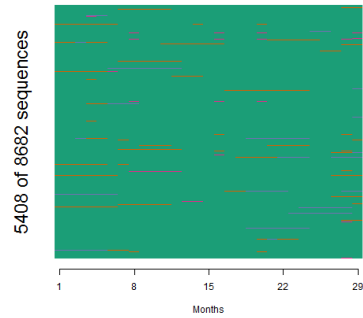
NCDS:  
4%



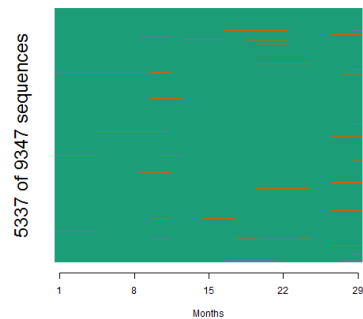
BCS:  
24%



YCS:  
55%



LSYPE:  
51%



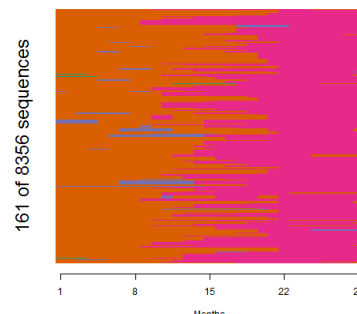
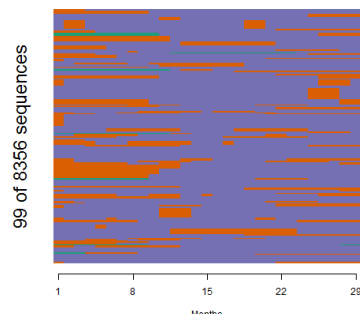
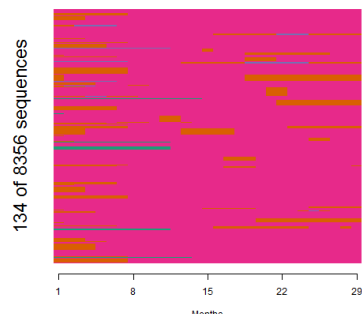
# How have the patterns changed over time?

- The proportion “Entering the labour market” has fallen from 91% in NCDS to 37% in YCS and LSYPE.
- The “Accumulating Human Capital” group has grown from 4% in the NCDS to around 5% in the YCS and LSYPE.
- The “Potential Cause for Concern” group has also grown, from 4-5% in the first three cohorts to 12% in the LSYPE.
  - In addition, those in later cohorts are much more likely to receive two additional years of education prior to becoming NEET.

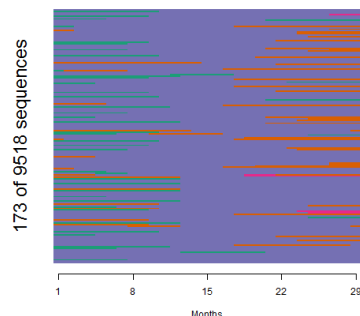
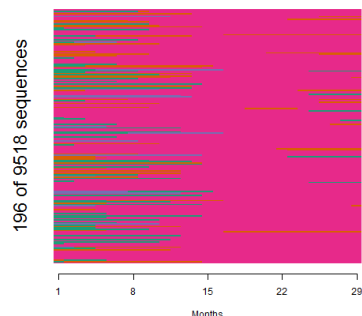
# “Potential Cause for Concern”



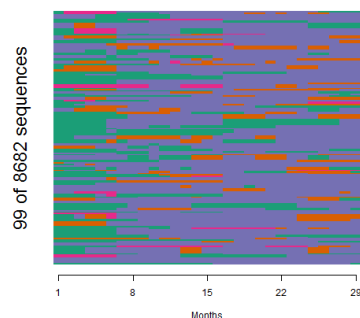
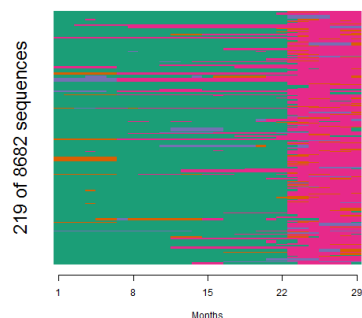
NCDS:  
5%



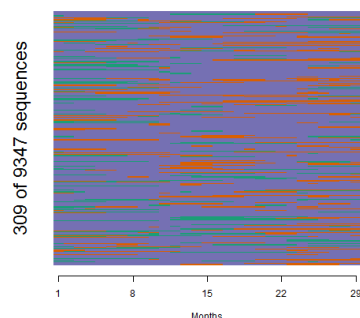
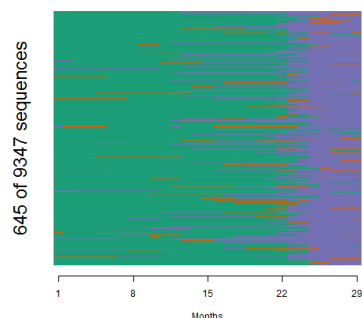
BCS:  
4%



YCS:  
5%



LSYPE:  
12%

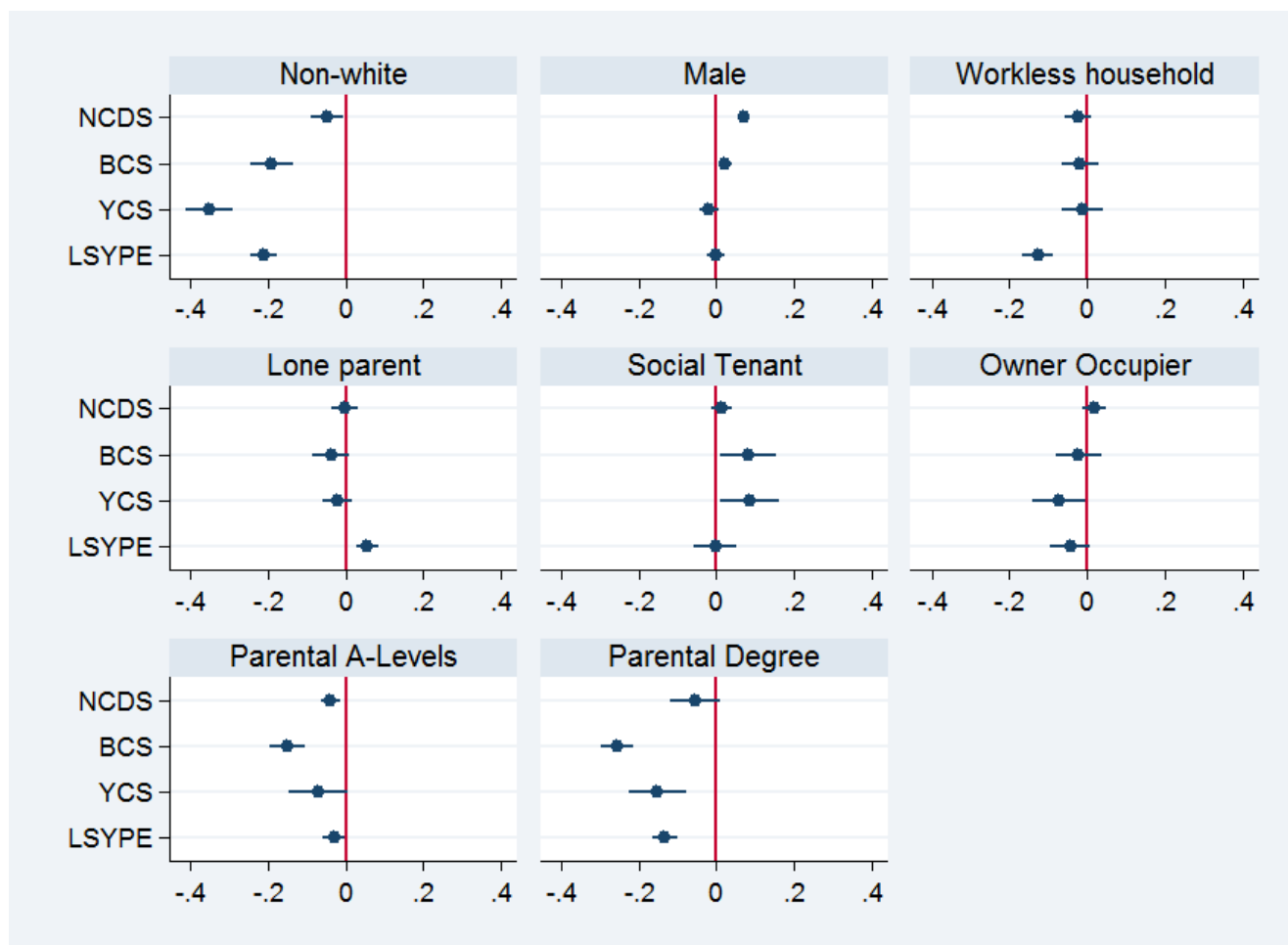


In LSYPE purple represents NEET (unemployed) and NEET (inactive)

# Using age 16 characteristics to predict grouping

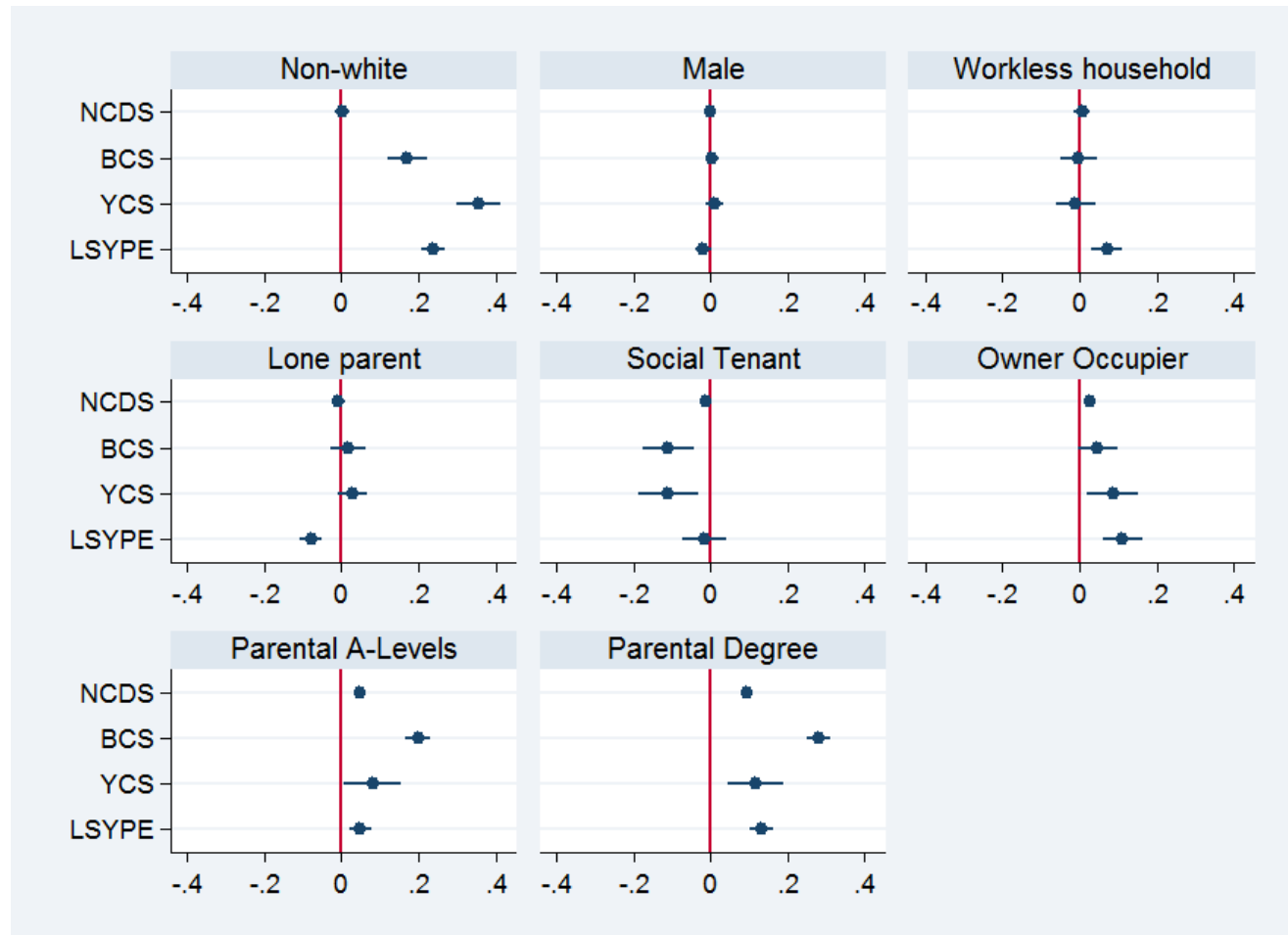
- Limited number of variables for prediction available across all datasets:
  - gender
  - ethnicity (white/ non-white)
  - single parent family
  - parental education (degree+/ A-level/ < A-level)
  - housing tenure (owner-occupier/ social rent/ other)
  - workless household

# Age 16 characteristics predicting “Entering the Labour Market”



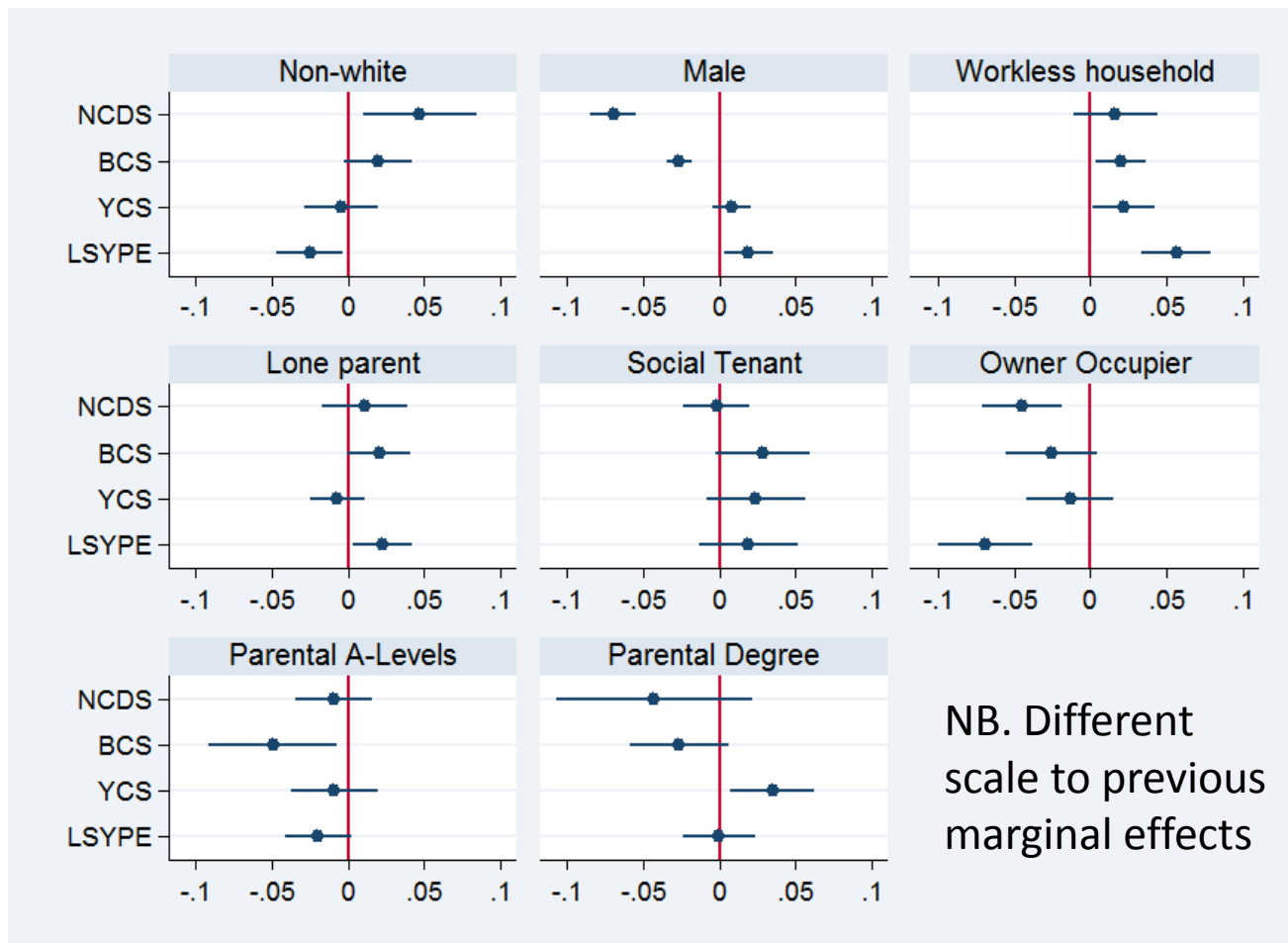
Notes: Chart reports average marginal effects on probability of individual being in a cluster within the “Entering the Labour Market” grouping. Arms show 95% confidence intervals.

# Age 16 characteristics predicting “Accumulating Human Capital”?



Notes: Chart reports average marginal effects on probability of individual being in a cluster within the “Accumulating Human Capital” grouping. Arms show 95% confidence intervals.

# Age 16 characteristics predicting “Potential Cause for Concern”?



Notes: Chart reports average marginal effects on probability of individual being in a cluster within the “Potential Cause for Concern” grouping. Arms show 95% confidence intervals.

# Summary and Conclusions

- There has been marked change over the past 30 years in young people's early transitions:
  - rapid entry to employment is now less common
  - more people stay longer in education
  - a small but growing minority seem not to achieve a positive transition
- The correlates of being in this latter group have changed: females and non-whites have gone from being more likely to be at risk of a difficult transition, to being less likely.
- Cumulative disadvantage from various indicators of SES continue to play a large role in predicting difficult transitions.

# But are early transitions important?

- They are to the extent they are predictive of longer-term outcomes:

| 16-18 Groupings | 18-24 Groupings |             |             |         |               |
|-----------------|-----------------|-------------|-------------|---------|---------------|
|                 | ELM             | AHC         | PCC         | Missing | Total (freq.) |
| <b>NCDS</b>     |                 |             |             |         |               |
| - ELM           | <b>61.9</b>     | 1.1         | 12.4        | 24.6    | 7,110         |
| - AHC           | 13.7            | <b>41.7</b> | 2.1         | 42.5    | 852           |
| - PCC           | 8.6             | 0.5         | <b>55.6</b> | 35.3    | 394           |
| - Missing       | 75.0            | 0.0         | 25.0        | 0.0     | 16            |
| Total           | 54.6            | 5.2         | 13.4        | 26.9    | 8,372         |
| <b>BCS</b>      |                 |             |             |         |               |
| - ELM           | <b>81.3</b>     | 5.7         | 12.2        | 0.9     | 6,867         |
| - AHC           | 6.8             | <b>87.2</b> | 4.4         | 1.6     | 2,282         |
| - PCC           | 23.0            | 6.8         | <b>69.4</b> | 0.8     | 369           |
| Total           | 61.1            | 25.3        | 12.6        | 1.0     | 9,518         |