CLOSER Conference

Social 1

Chair: **Morag Henderson**

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  Bozena Wielgoszewska
- Structure or family? A comparison of the educational systems of England and Germany and their impact on qualification and employment in adulthood.
  Marie Wohlbrandt
- Origins, Education and Destinations in the 1970 British Cohort Study
  Alice Sullivan

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Different degrees of career success: social origin and graduates' labour market trajectories

Bozena Wielgoszewska
University of Edinburgh

(in collaboration with: Dr. Adriana Duta and Prof. Cristina Iannelli)

Inequalities: a longitudinal perspective,
London, November 2017

Introduction

- Recent research: social inequalities among graduates in the UK (e.g. Jacob, Klein and Iannelli, 2015; Macmillan, Tyler and Vignoles, 2015)

  → mostly between top and bottom social classes;

  → key explanatory factors: prestige of HE institution, class of degree, field of study, higher education (in line with effectively maintained inequality theory - horizontal aspects additional layers of social stratification (Lucas, 2001);

  → recent graduate cohorts, limited to one or two time-points in the early labour market outcomes (up to 5 years since graduation), diploma holders excluded despite being part of the tertiary education.

- Social stratification literature: the 'direct effects' of social origin (i.e. the effect not mediated by education: O→D) weaker for those with *higher education* (US: Torche, 2011; Hout, 1988; Scotland: Iannelli and Paterson, 2007; Sweden: Breen and Jonsson, 2008; France: Vallet, 2004)

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Introduction

- Social stratification beyond one time-point: the case for connecting intra- and inter- generational mobility (Blau & Duncan, 1967), more recently (Barone & Schizzerotto, 2011; Bukodi & Godthorpe 2011)

- Growing number of studies using longitudinal data and methods to study employment or/and occupational outcomes (e.g. Halpin and Chan,1998; Brzinsky-Fay, 2007; Aassve, Billari and Piccarreta, 2007)

- Yet, only a few studies have examined social inequalities though a life-course perspective (e.g. Sturgis & Sullivan, 2008; Buhlmann, 2010; Bukodi, Goldthorpe & Halpin, 2016)

Aim & Research Questions

Central aim: examine social inequalities in tertiary education graduates' employment/occupational trajectories across the life course

Research Questions:

1) What are the typical labour market pathways followed by graduates?

2) Are these pathways different among degree and sub-degree holders?

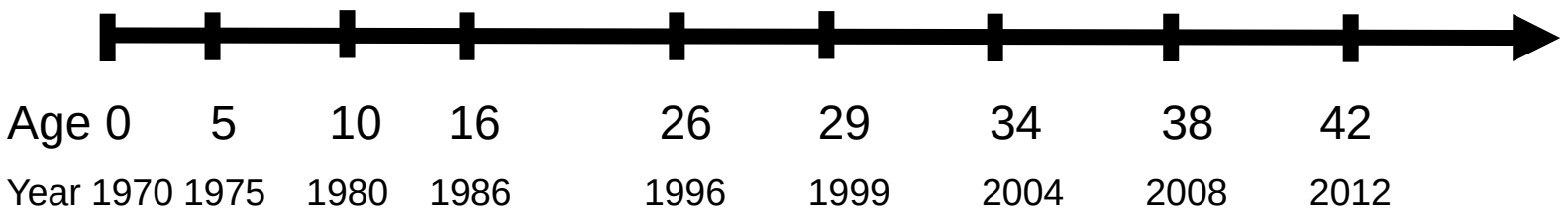
3) How do these pathways vary by parental social class?

4) Do differences in graduates' HE experiences (*e.g. field of study and institution attended and degree class achieved*) explain class-of-origin differences?

Data

1970 British Cohort Study

- Over 17,000 individuals in the birth sample
- Individuals born in Scotland, England and Wales in single week (between 5th and 11th of April)
- Longitudinal data, which gathers vast amount of information throughout the cohort members' life course
- So far, information has been collected in 9 sweeps:



- Parental background information: age 10
- Activity Histories file (1986-2012): harmonised histories of activities (type and start/end date)
- HE variables (age 29, 34, 38,42)

Sample of graduates from tertiary education: university and diploma qualifications

Our subsamples:

I. Graduates: degree + higher degree **[Do you have a degree? Asked at age 42]**

-*Yes* (N=2061)
-*Not applicable* (N=175) [filtered out respondents who attained their degree after age 30]

Total graduates subsample: ***2236***

15% missing cases for key HE variables → ***1905*** *valid cases*

II. Diploma: BCS 1970 derived highest academic qualification up to 2012/ age 42

Total diploma subsample: **825**

17% missing cases for key variables (i.e. age of graduation) → ***688*** *valid cases*

Missing data: listwise deletion + sensitivity checks in progress i.e., multiple imputation

Measurement (2)
Explanatory variables

- ***Parental social class*** (NS-SEC → four categories)
- ***Gender*** (M/F)
- ***Graduation age*** (20-22, 23-25, 26-31, 32-42)
- ***Class of degree***
  - -First, Upper second [2:1], Lower Second [2:2], Third and Pass
- ***Type of HE institution*** attended
  - -Old (founded before 1950, including ancient universities)
  - -Newer (founded from 1950s to 1992)
  - -Post 92
  - -Other
- ***Field of study***
  - -STEM (Science, Technology, Engineering and Mathematics),
  - -LEM (Law, Economics and Management)
  - -OSSAH (other social sciences, arts and humanities, languages)
  - -COMB (combined subject degrees)

Sweeps at age 29, 34, 38,42

Sweep at 42

Measurement (1)

Sequence trajectories built on 9 States:

Column A: Detailed activity	*Column B: Compressed category*	*Column C: SEG (destination)*	*Column D: Final activity*
"Unemployed seeking work"	Unemployed		**Unemployed**
"F/t education" "Part-time education"	Education		**Education**
"F/t paid employee (30+ hrs)" "F/t self-employed" "P/t paid employee (lt 30 hrs)" "P/t self-employed" "Employed, not known if FT/PT" "Self-employed, not known if FT/PT" "Work but not known if ft/pt or emp/se"	Employed	"Armed forces" "NA"	**Employed**
		"Employers - large estab" "Managers - large estab" "Prof: Employees" "Prof: Self-employed"	**NSSEC 1**
		"Intermed non-man: Ancilliary" "Intermed non-man: Foremen" "Managers - small estab"	**NSSEC 2**
		"Employers - small estab" "Junior non-manual" "Farmers:employers & mngrs" "Farmers: own account" "Own account: non prof"	**NSSEC 3_4**
		"Foremen & supervisors: manual" "Personal service" "Semi-skilled manual" "Unskilled manual" "Agricultural workers" "Skilled manual"	**NSSEC 5_7**
"Looking after home/family" "Maternity leave" "Permanently sick/disabled" "Temporarily sick/disabled" "Wholly retired" "Travelling/Extended holiday" "Government training scheme" "Voluntary work" "Employed, but unpaid" "Other"	Inactive or Other		**Inactive or Other**
"Don't know/ Not enough info."	Missing	"Don't know/ Not enough info." "Not applicable"	**Missing**

Parental social class:
SEG → NS-SEC (the same grouping)

Methods – Sequence Analysis

Step 1: Visualisation of the trajectories

Step 2: Transition matrix:

→ *constant & transition-rates-based cost matrix = almost identical results*

Step 3: Computing dissimilarities between sequences:

→ *optimal matching (TraMineR package in R)*

Step 4: Cluster analysis:

→ *Partitioning Around Mediods (PAM) algorithm & hierarchical Ward's method (Studer, 2013; Murtagh and Legendre, 2014)*

Step 5: Selecting optimal number of clusters:

→ *statistical tests (e.g. Point Biserial Correlation, Average Silhouette Width, Hubert's Gamma, Hubert's Somers' D (5 clusters) & theoretical considerations → 6 clusters graduates, 5 clusters diploma holdes*

Step 6: Explaining the cluster membership by covariates

→ *multinomial logistic regression followed by average marginal effects*

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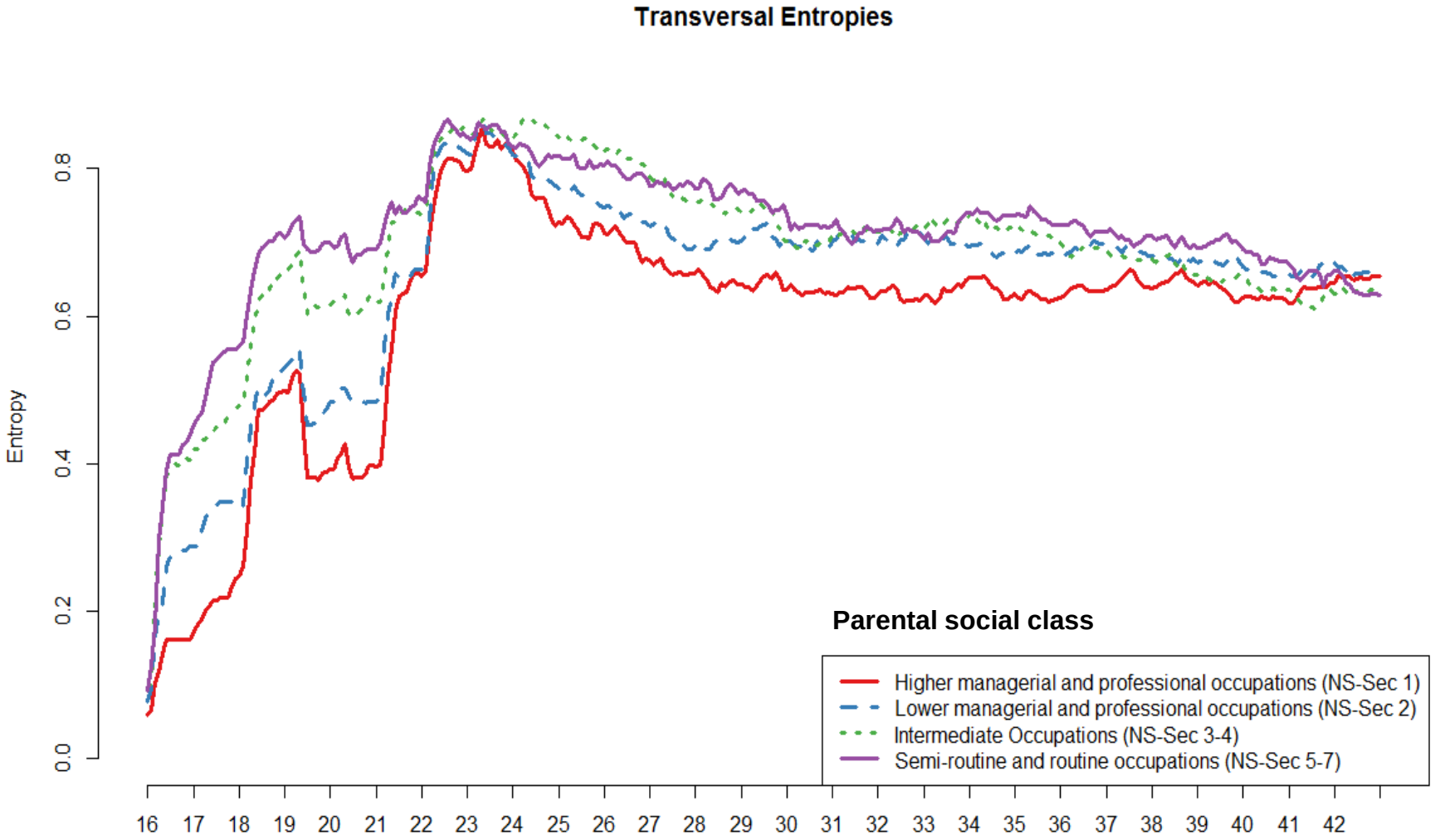
Graduates



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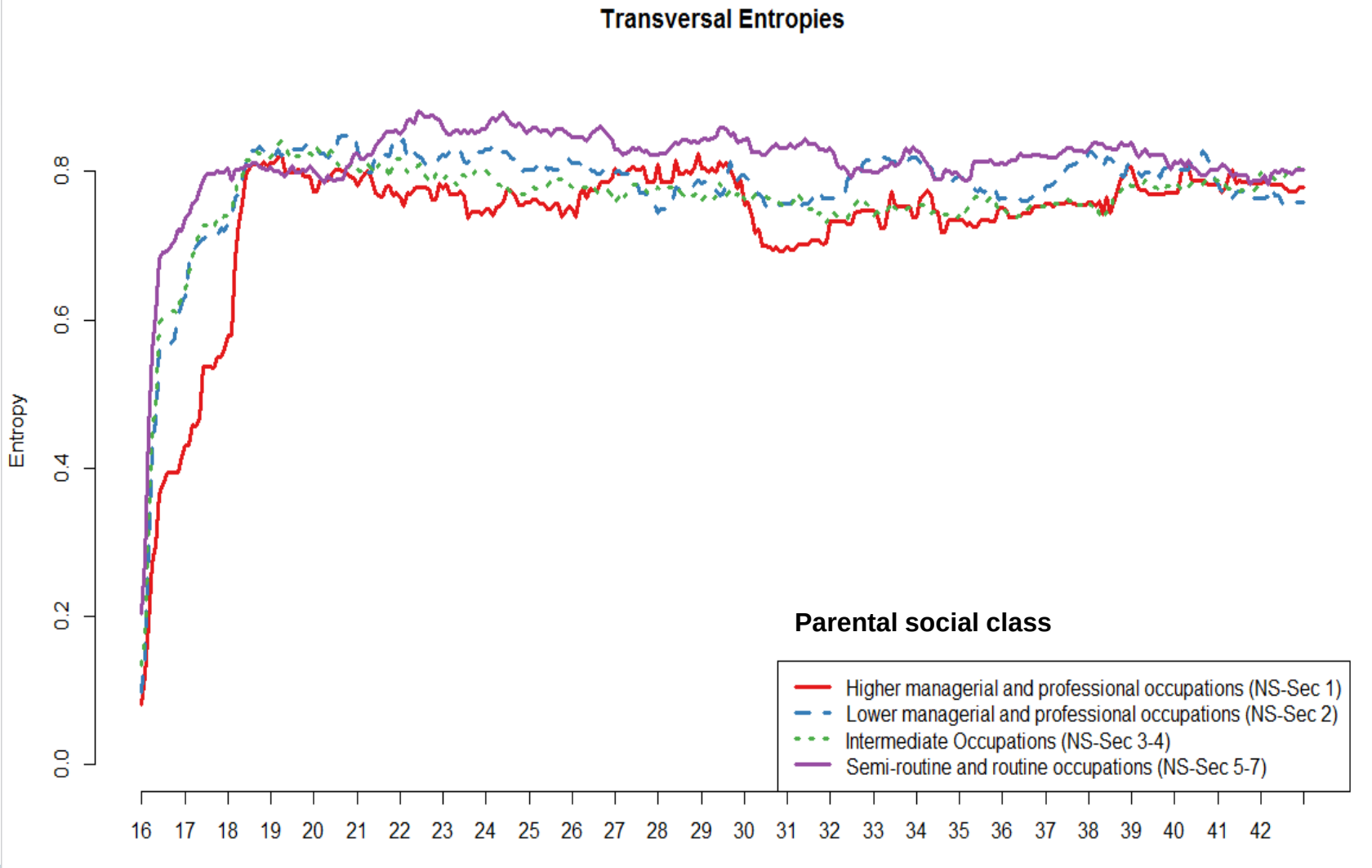
Diploma-holders



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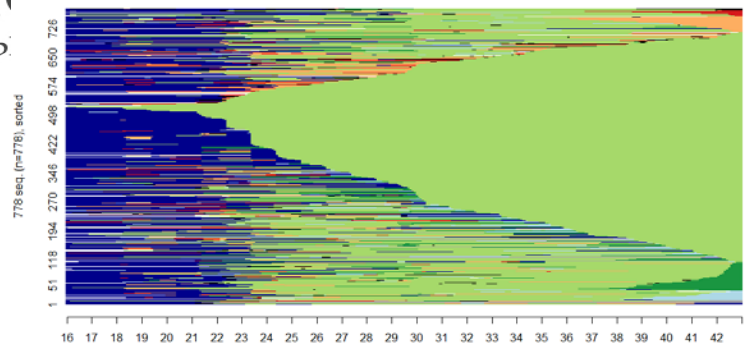
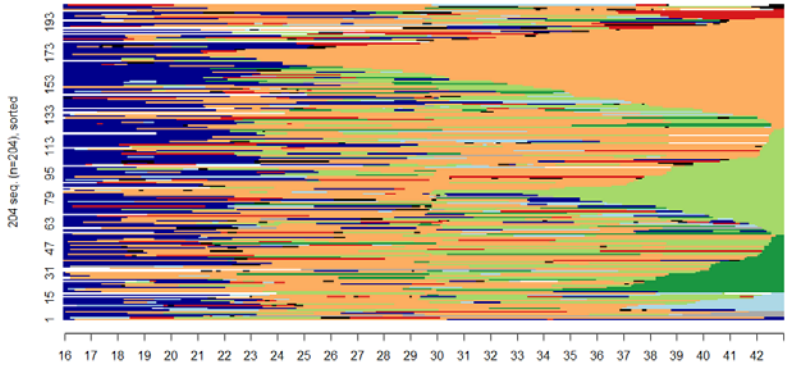
I. University degree holders

Graduates' typologies of trajectories: index plots

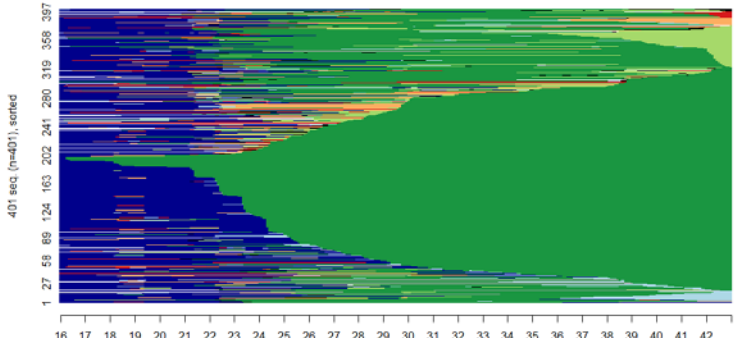
Direct and early entry into NS-SEC2



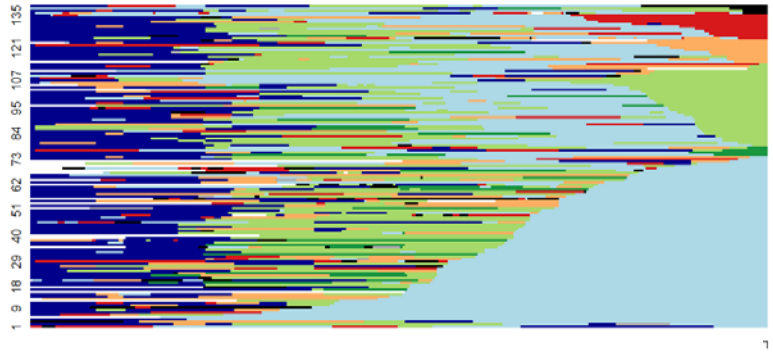
Predominantly intermediate



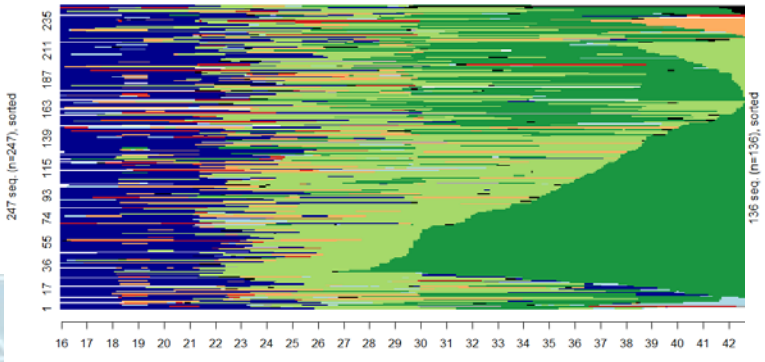
Direct & early entry into NS-SEC1



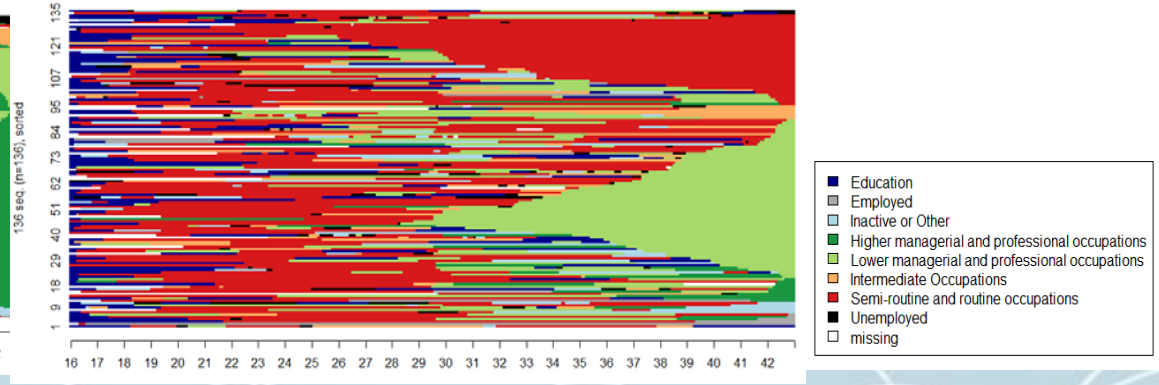
Predominantly inactive starting with late 20's



Climbers from NS-SEC2 into NS-SEC1



Predominantly Routine and Semi-Routine



Graduates' typologies of trajectories: state distribution plots

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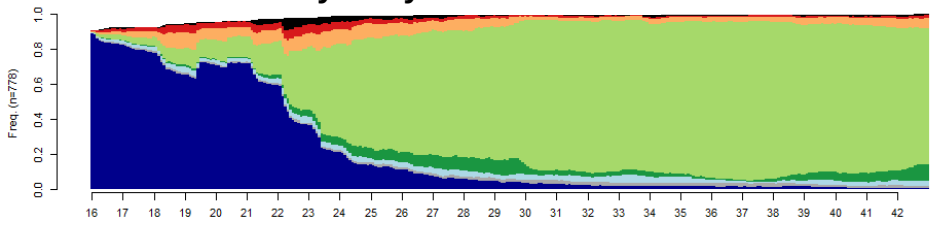
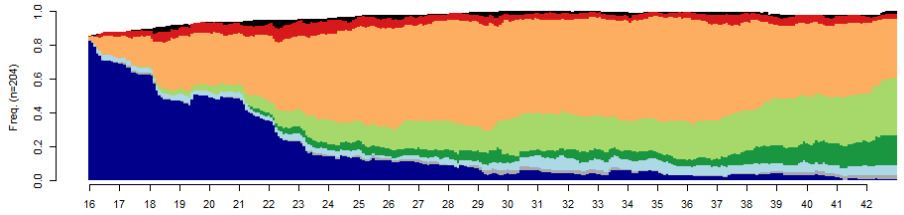
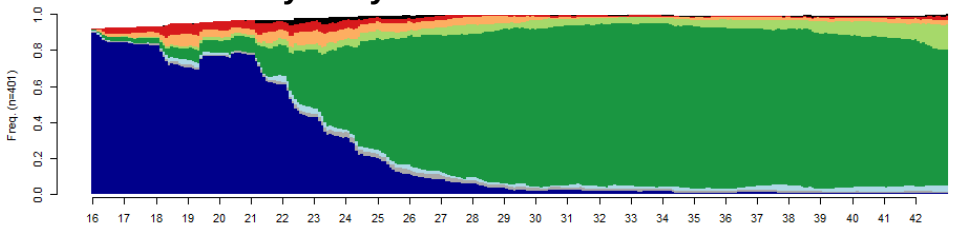
Direct and early entry into NS-SEC2



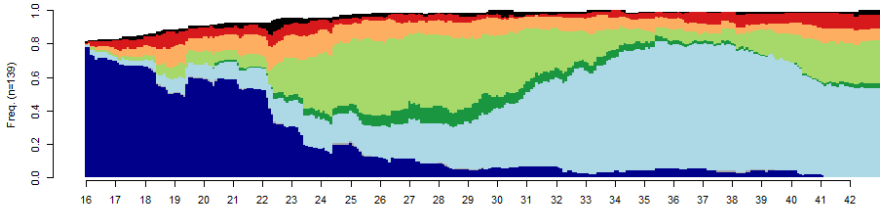
Predominantly intermediate



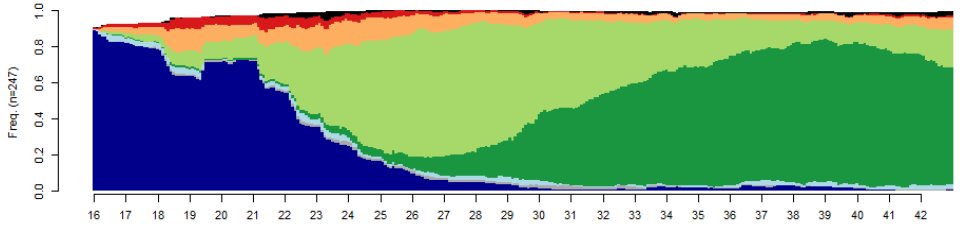
Direct & early entry into NS-SEC1



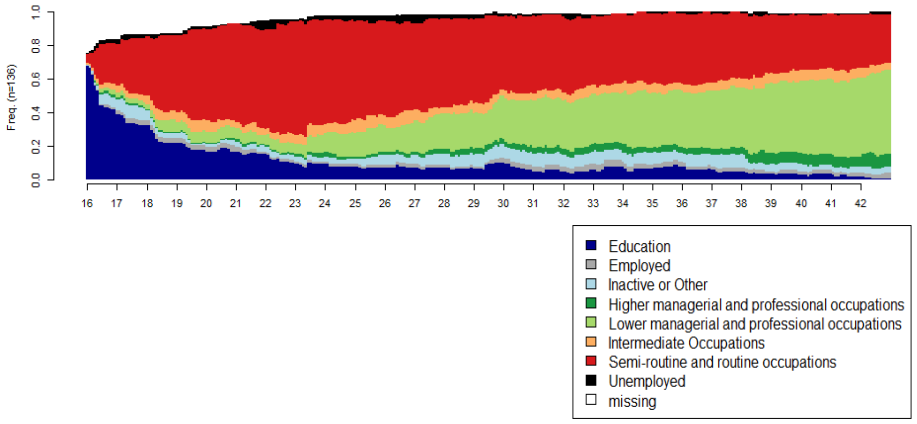
Predominantly inactive starting with late 20's



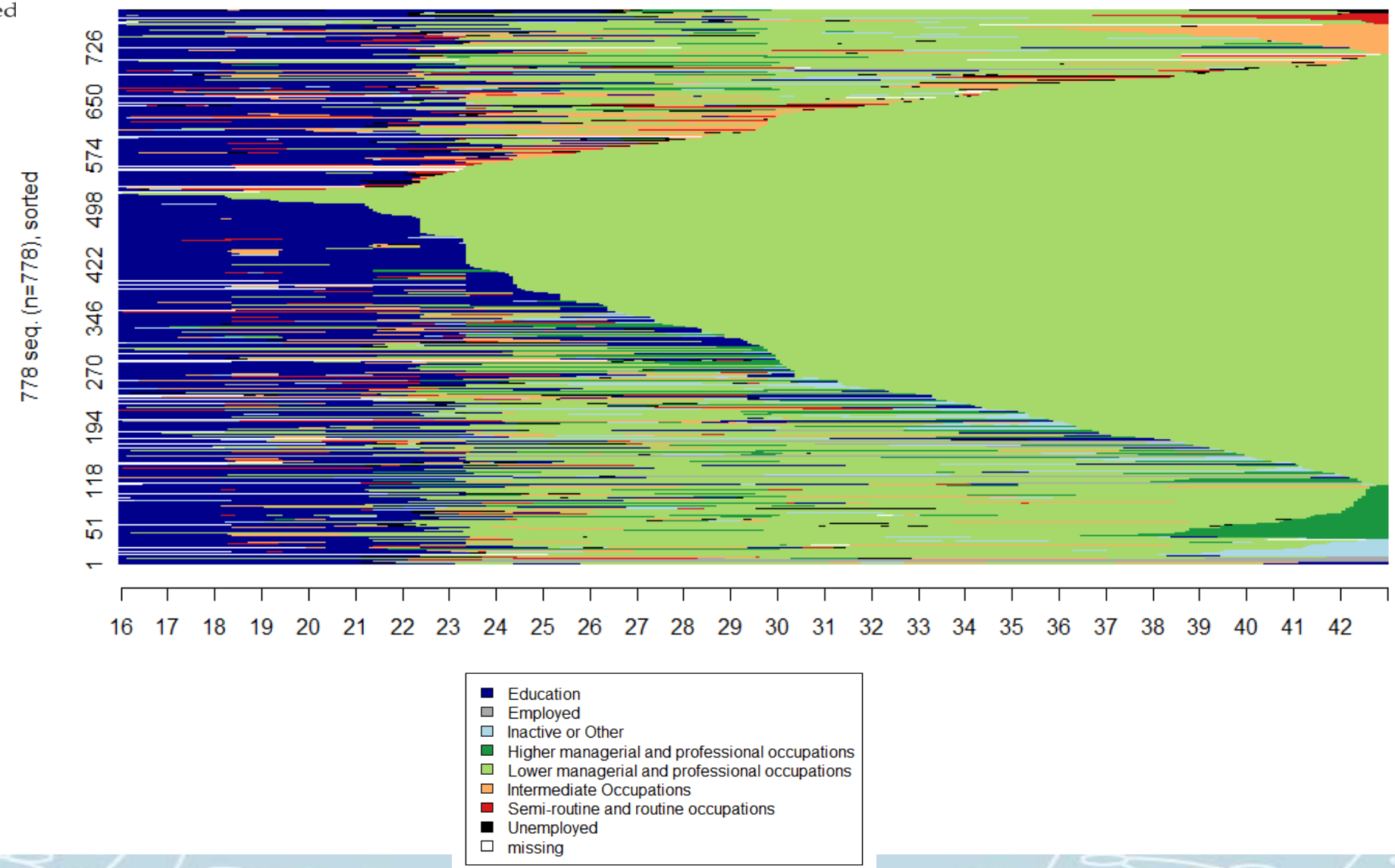
Climbers from NS-SEC2 into NS-SEC1



Predominantly Routine and Semi-Routine



Direct and early entry into NS-SEC2



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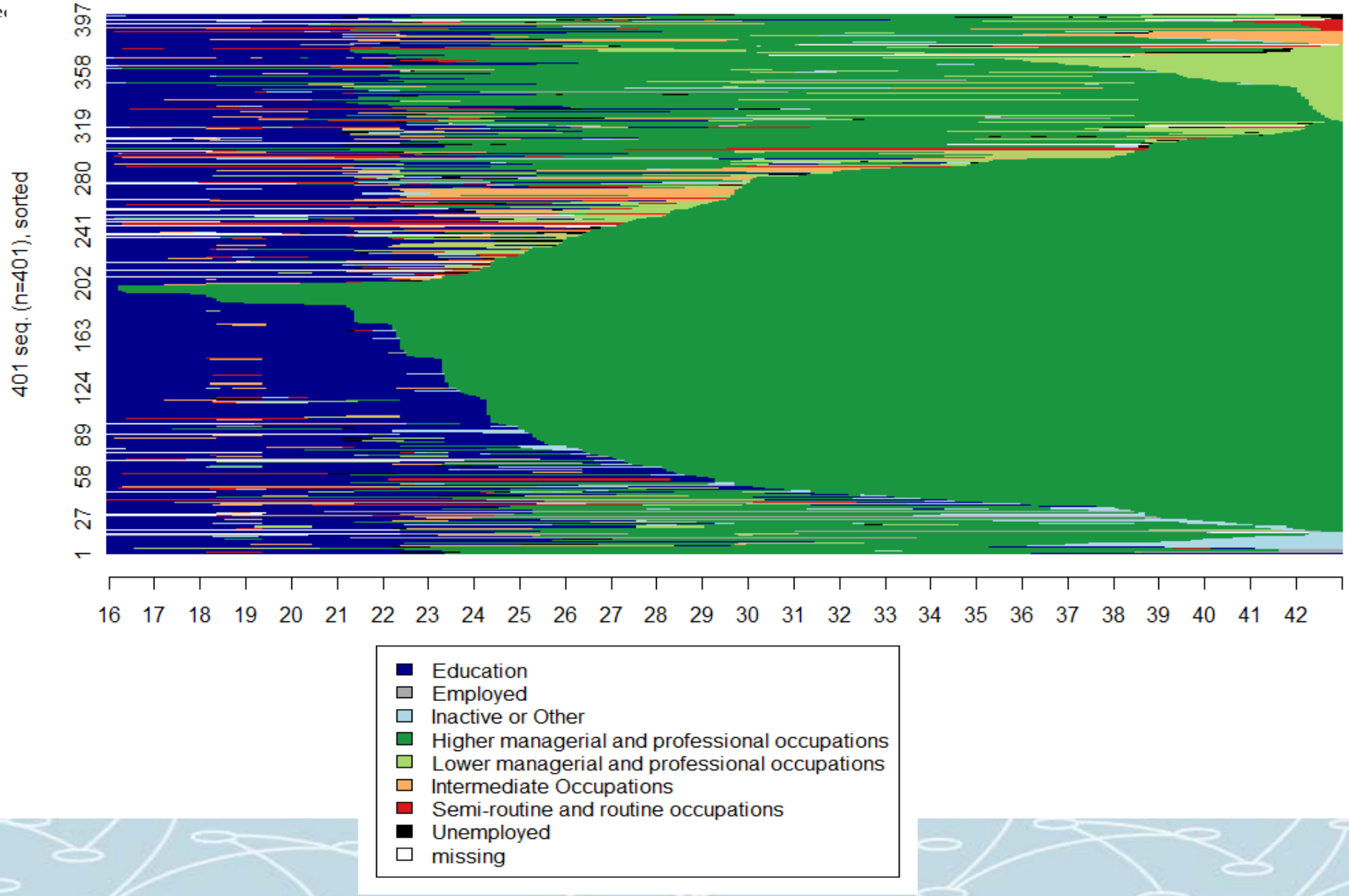
Differences in the probability of following 'Direct & early entry into NS-SEC2' trajectory

Parental social class (ref. NS-SEC 1)	M1 Parental class+ Gender	M2 (M1+ Age at graduation)	M3 (M1+ Class of degree)	M4 (M1+Type of university	M5 (M1+Field of study)	M6 (M1+ Postgrad. degree)	M7 (M1-M6 combined)
NSSEC 2	**0.064***	0.067*	0.065*	0.062*	0.060	0.061	0.062*
	(0.032)	(0.031)	(0.032)	(0.032)	(0.031)	(0.031)	(0.031)
NSSEC 3-4	**0.067***	0.085*	0.068*	0.063	0.065	0.063	0.077*
	(0.034)	(0.034)	(0.034)	(0.034)	(0.033)	(0.034)	(0.034)
Female	0.089***	0.099***	0.089***	0.088***	0.050*	0.088***	0.058*
	(0.022)	(0.022)	(0.023)	(0.022)	(0.024)	(0.022)	(0.023)
Age at graduation (ref.: 20-22)							
32-42		-0.149***					-0.161***
		(0.033)					(0.035)
Field of study (ref.: STEM)							
OSSAH					0.137***		0.136***
					(0.028)		(0.029)
Postgraduate degree						-0.065*	-0.073**
						(0.028)	(0.028)

*Note: Average marginal effects; Standard errors in parentheses; * p<0.05; ** p<0.01; *** p<0.001;*

Direct & early entry into NS-SEC1

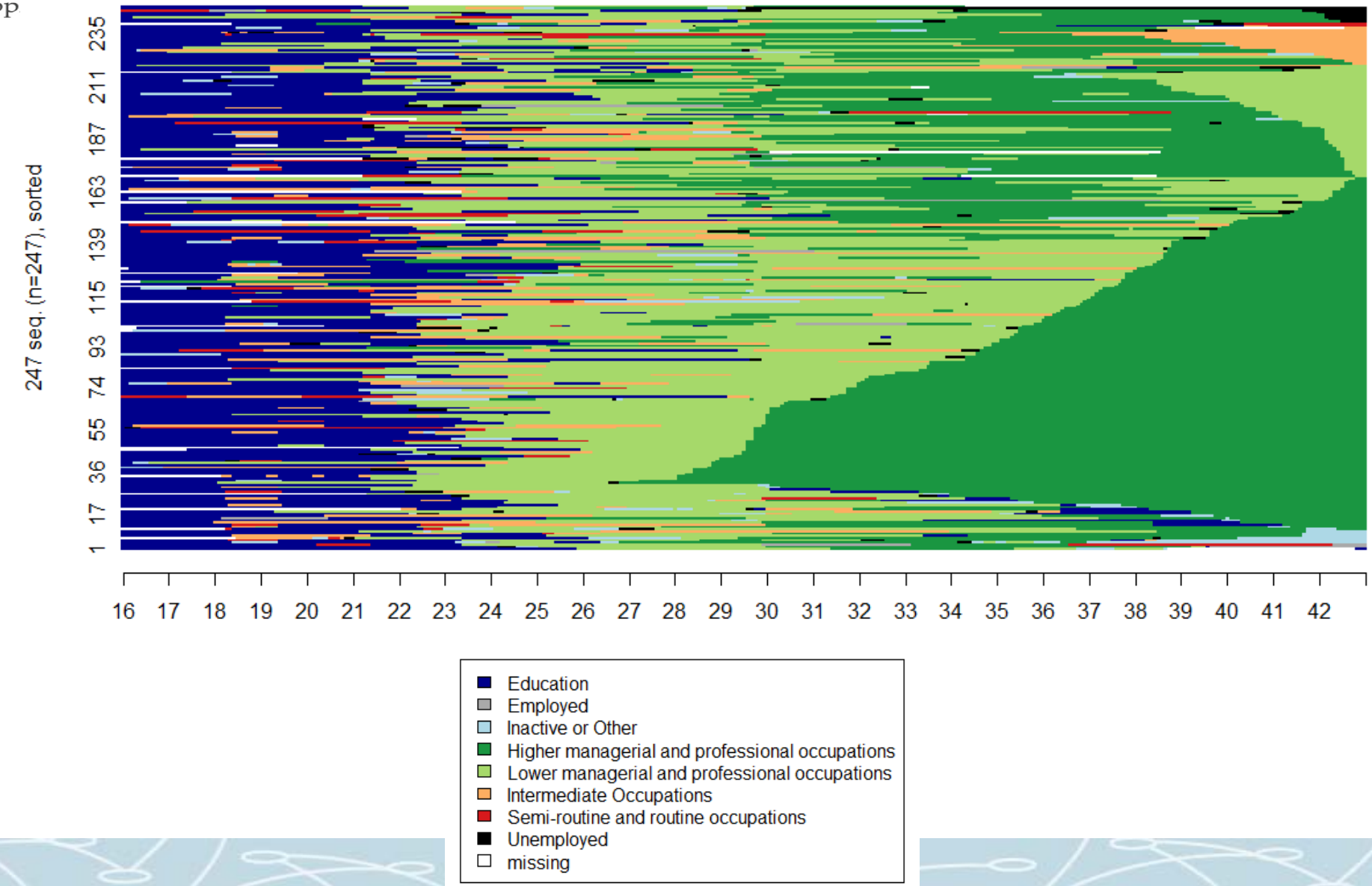


Differences in the probability of following 'Direct & early entry into NS-SEC1' trajectory

Parental social class (ref. NS-SEC 1)	M1 Parental class+ Gender	M2 (M1+ Age at graduation)	M3 (M1+ Class of degree)	M4 (M1+Type of university	M5 (M1+Field of study)	M6 (M1+ Postgrad. degree)	M7 (M1-M6 combined)
NSSEC 3_4	**-0.066***	-0.036	-0.069*	-0.047	-0.063*	-0.061*	-0.021
	(0.028)	(0.028)	(0.028)	(0.028)	(0.027)	(0.028)	(0.027)
NSSEC 5_7	**-0.097*****	-0.057	-0.099***	-0.078**	-0.104***	-0.091**	-0.052
	(0.029)	(0.030)	(0.029)	(0.029)	(0.027)	(0.029)	(0.028)
Female	-0.135***	-0.124***	-0.137***	-0.134***	-0.067***	-0.133***	-0.063***
	(0.019)	(0.018)	(0.019)	(0.018)	(0.019)	(0.018)	(0.018)
Age at graduation (ref.: 20-22)							
26-31		-0.127***					-0.107***
		(0.027)					(0.028)
32-42		-0.193***					-0.165***
		(0.022)					(0.025)
Class of degree (ref. First)							
Lower second [2:2]			-0.126***				-0.109**
			(0.037)				(0.035)
Third			-0.145**				-0.147**
			(0.051)				(0.046)
Upper second [2:1]			-0.074*				-0.054
			(0.037)				(0.034)
Type of university (ref.: Ancient & Old)							
Newer_universities				-0.077**			-0.031
				(0.027)			(0.026)
Other				-0.116**			-0.048
				(0.045)			(0.048)
Post_92				-0.121***			-0.077***
				(0.023)			(0.022)
Field of study (ref.: STEM)							
COMB					-0.178***		-0.172***
					(0.034)		(0.032)
OSSAH					-0.233***		-0.219***
					(0.022)		(0.022)
Other					-0.195***		-0.159**
					(0.044)		(0.049)
Postgraduate degree						0.128***	0.068**
						(0.025)	(0.023)

*Note: Average marginal effects; Standard errors in parentheses; * p<0.05; ** p<0.01; *** p<0.001;*

Climbers from NS-SEC2 into NS-SEC1



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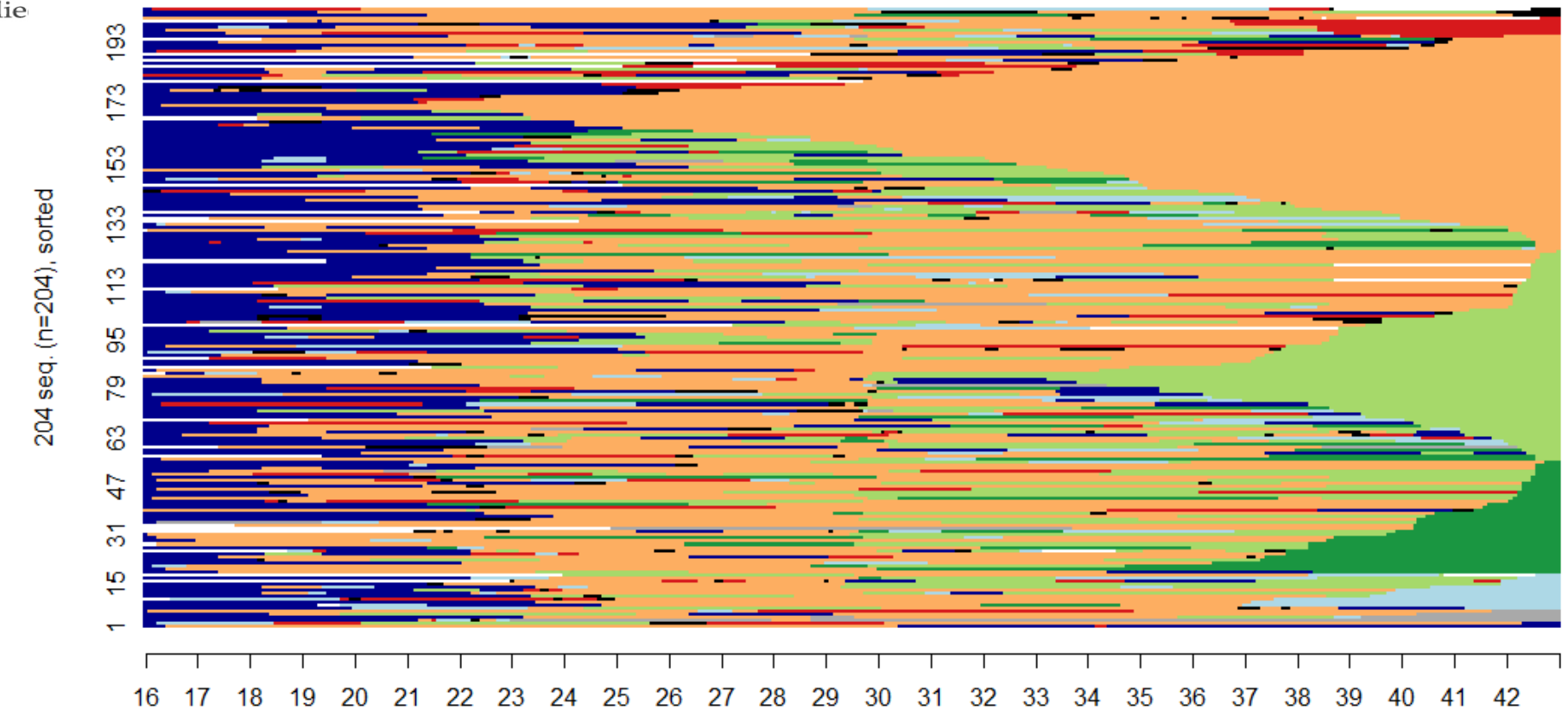
Differences in the probability of following ‘Climbers from NS-SEC2 into NS-SEC1’ trajectory

Parental social class (ref. NS-SEC 1)	M1 Parental class+ Gender	M2 (M1+ Age at graduation)	M3 (M1+ Class of degree)	M4 (M1+Type of university	M5 (M1+Field of study)	M6 (M1+ Postgrad. degree)	M7 (M1-M6 combined)
NSSEC 2	**-0.052***	-0.046*	-0.051*	-0.052*	-0.049*	-0.050*	-0.043*
	(0.022)	(0.022)	(0.022)	(0.022)	(0.022)	(0.022)	(0.022)
NSSEC 3-4	**-0.057***	-0.047*	-0.055*	-0.056*	-0.056*	-0.054*	-0.048*
	(0.023)	(0.023)	(0.023)	(0.024)	(0.023)	(0.023)	(0.023)
Female	-0.060***	-0.054***	-0.062***	-0.060***	-0.058***	-0.059***	-0.051**
	(0.015)	(0.015)	(0.016)	(0.015)	(0.016)	(0.015)	(0.016)
Age at graduation (ref.: 20-22)							
32-42		-0.094***					-0.073***
		(0.018)					(0.022)
Class of degree (ref. First)							
Lower second [2:2]			0.067**				0.064*
			(0.025)				(0.025)
Upper second [2:1]			0.055*				0.048*
			(0.024)				(0.024)
Type of university (ref.: Ancient & Old)							
Other				-0.069*			-0.062
				(0.032)			(0.033)
Field of study (ref.: STEM)							
COMB					0.069*		0.060
					(0.035)		(0.034)
OSSAH					0.061**		0.054*
					(0.024)		(0.024)
Postgraduate degree						0.071***	0.077***
						(0.022)	(0.022)

*Note: Average marginal effects; Standard errors in parentheses; * p<0.05; ** p<0.01; *** p<0.001;*

Predominantly intermediate



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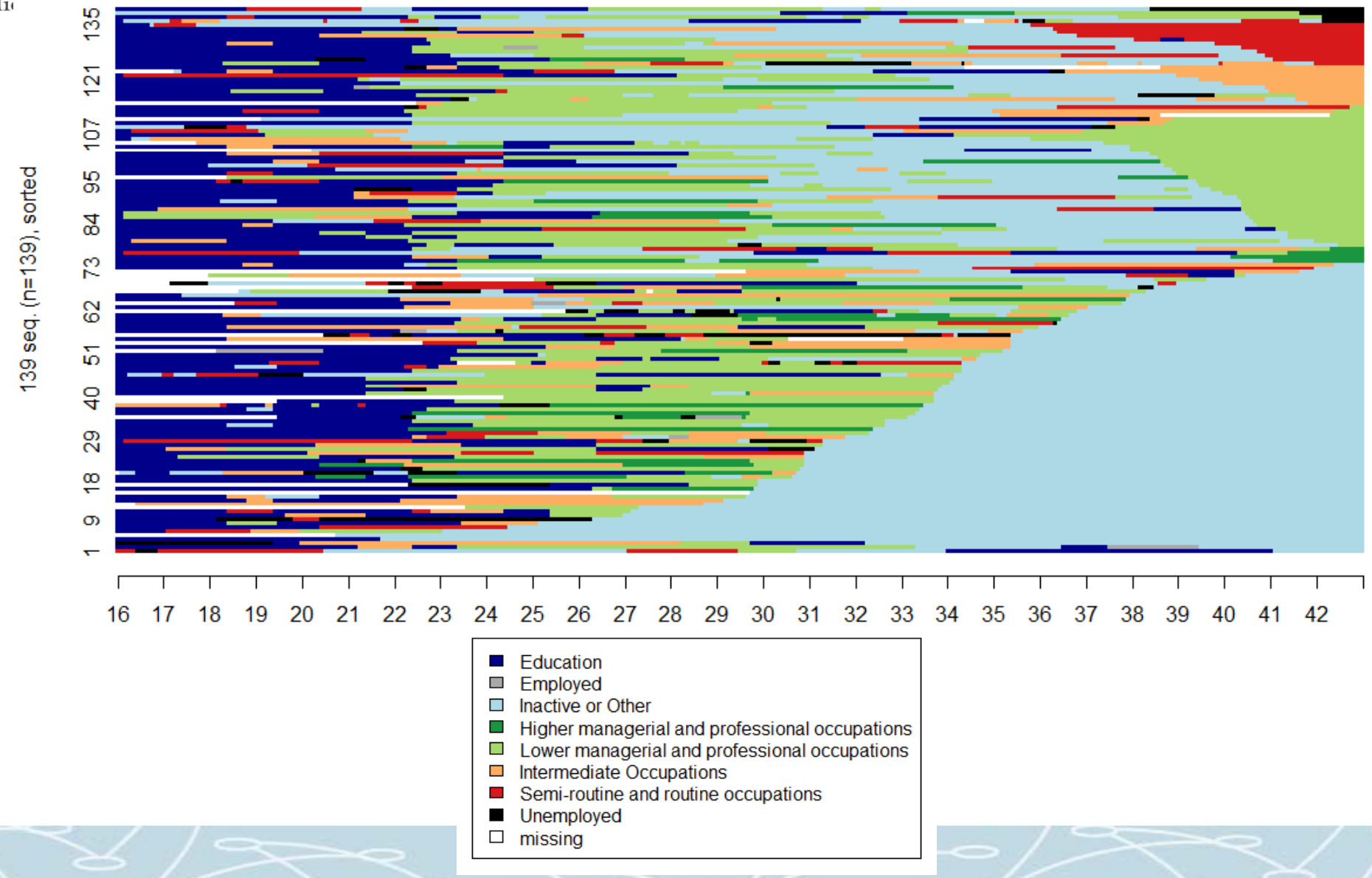
Differences in the probability of following 'Predominantly intermediate' trajectory

	M1 Parental class+ Gender	M2 (M1+ Age at graduation)	M3 (M1+ Class of degree)	M4 (M1+Type of university	M5 (M1+Field of study)	M6 (M1+ Postgrad. degree)	M7 (M1-M6 combined)
Age at graduation (ref.: 20-22)							
26-31		0.067**					0.057*
		(0.025)					(0.025)
32-42		0.151***					0.158***
		(0.029)					(0.031)
Type of university (ref.: Ancient & Old)							
Newer universities				0.051**			0.030
				(0.019)			(0.020)
Other				0.082*			0.049
				(0.040)			(0.037)
Post_92				0.057***			0.031
				(0.016)			(0.017)
Field of study (ref.: STEM)							
COMB					0.078*		0.086**
					(0.030)		(0.032)
LEM					0.087***		0.086***
					(0.022)		(0.021)
OSSAH					0.052**		0.047**
					(0.016)		(0.016)
Other					0.117*		0.091*
					(0.048)		(0.043)
Postgraduate degree						-0.049**	-0.020
						(0.015)	(0.019)

*Note: Average marginal effects; Standard errors in parentheses; * p<0.05; ** p<0.01; *** p<0.001;*

Predominantly inactive starting with late 20's



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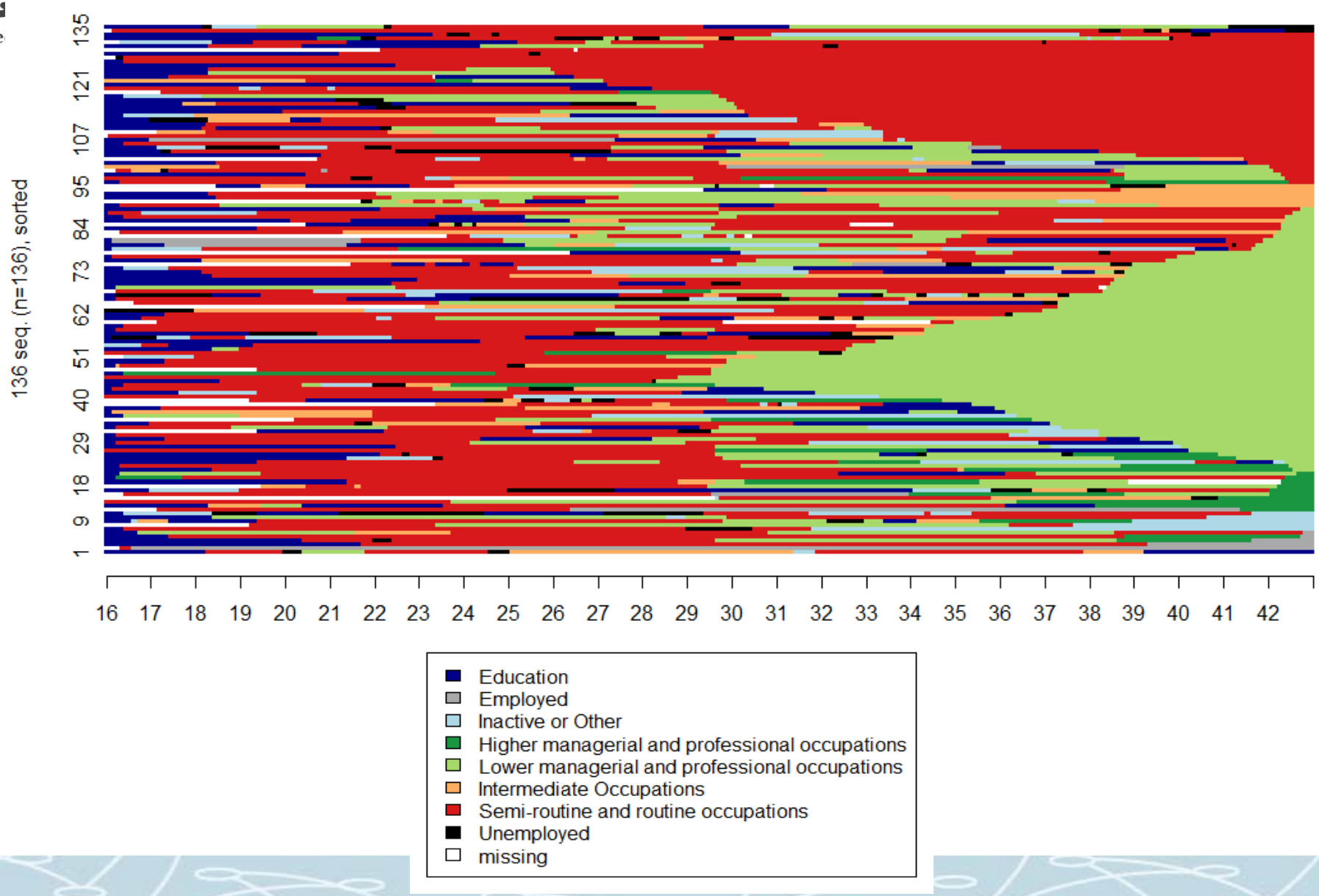
Differences in the probability of following ‘Predominantly inactive’ trajectory

	M1 Parental class+ Gender	M2 (M1+ Age at graduation)	M3 (M1+ Class of degree)	M4 (M1+Type of university	M5 (M1+Field of study)	M6 (M1+ Postgrad. degree)	M7 (M1-M6 combined)
Female	0.122***	0.120***	0.123***	0.121***	0.114***	0.121***	0.114***
	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)

*Note: Average marginal effects; Standard errors in parentheses; * p<0.05; ** p<0.01; *** p<0.001;*

Predominantly Routine and Semi-Routine



Differences in the probability of following ‘Predominantly routine & semi-routine’ trajectory

Parental social class (ref. NS-SEC 1)	M1 Parental class+ Gender	M2 (M1+ Age at graduation)	M3 (M1+ Class of degree)	M4 (M1+Type of university	M5 (M1+Field of study)	M6 (M1+ Postgrad. degree)	M7 (M1-M6 combined)
NSSEC 2	**0.031***	0.025	0.031*	0.029*	0.029*	0.030*	0.022
	(0.014)	(0.016)	(0.014)	(0.014)	(0.013)	(0.014)	(0.015)
NSSEC 3-4	**0.046****	0.020	0.046**	0.041*	0.047**	0.044**	0.023
	(0.016)	(0.016)	(0.016)	(0.016)	(0.016)	(0.016)	(0.016)
NSSEC 5-7	**0.085*****	0.041*	0.079***	0.079***	0.083***	0.082***	0.038*
	(0.020)	(0.017)	(0.020)	(0.020)	(0.020)	(0.020)	(0.017)
Female	-0.021	-0.039***	-0.020	-0.021	-0.031*	-0.023	-0.044***
	(0.012)	(0.011)	(0.012)	(0.012)	(0.013)	(0.012)	(0.012)
Age at graduation (ref.: 20-22)							
23-25		0.024*					0.020
		(0.011)					(0.011)
26-31		0.081***					0.073***
		(0.021)					(0.020)
32-42		0.260***					0.208***
		(0.030)					(0.028)
Type of university (ref.: Ancient & Old)							
Newer_universities				0.038*			0.015
				(0.016)			(0.017)
Post_92				0.045***			0.015
				(0.013)			(0.014)
Field of study (ref.: STEM)							
COMB					-0.040*		-0.030
					(0.018)		(0.021)
LEM					-0.060***		-0.059***
					(0.012)		(0.012)
Other					0.096*		0.044
					(0.047)		(0.034)
Postgraduate degree						-0.061***	-0.033*
						(0.010)	(0.015)

*Note: Average marginal effects; Standard errors in parentheses; * p<0.05; ** p<0.01; *** p<0.001;*

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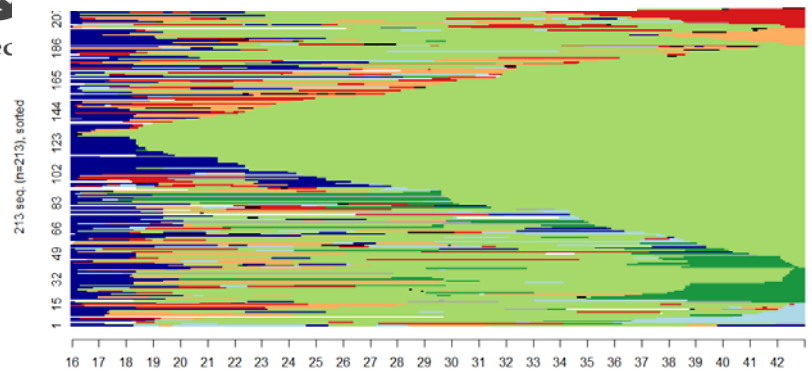
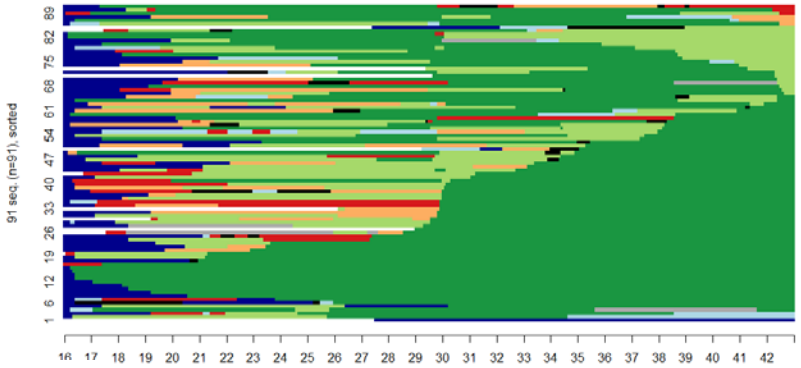
II. Diploma holders

Diploma holders' typologies of trajectories: index plots

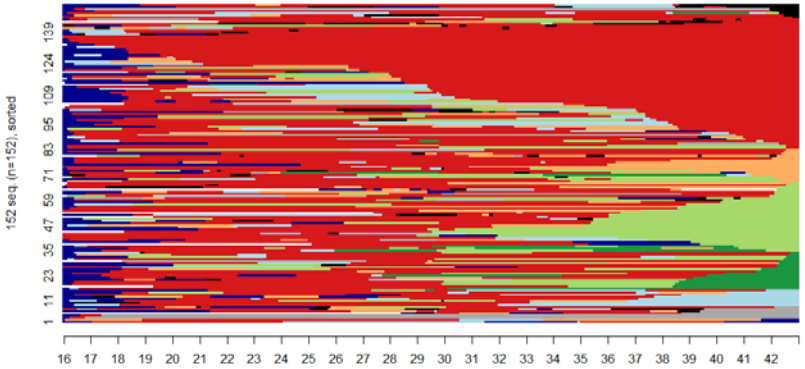
Direct and early entry into NS-SEC2



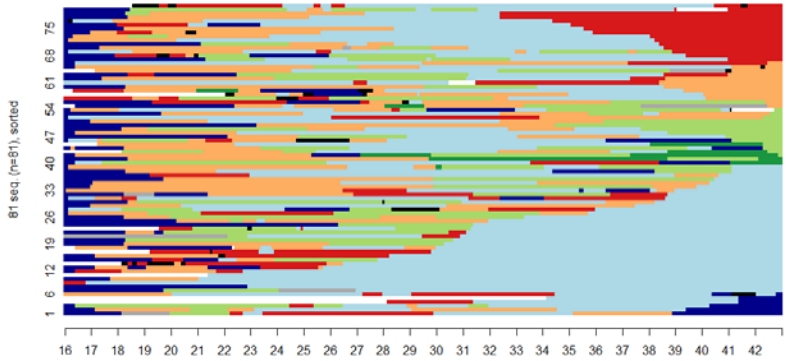
Climbers from NS-SEC2 into NS-SEC1



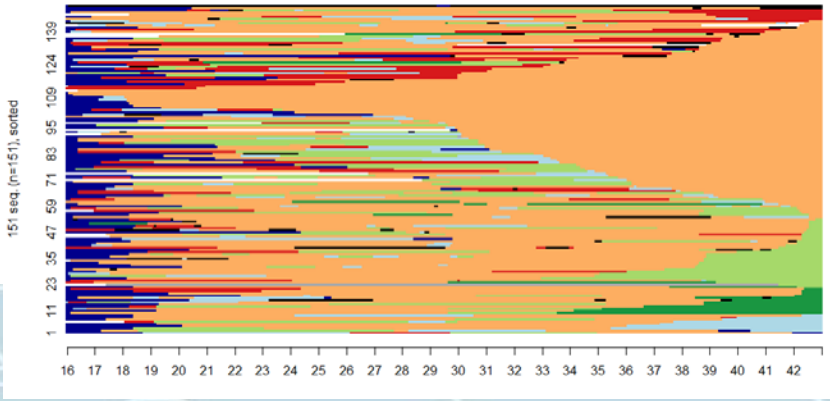
Predominantly Routine and Semi-Routine

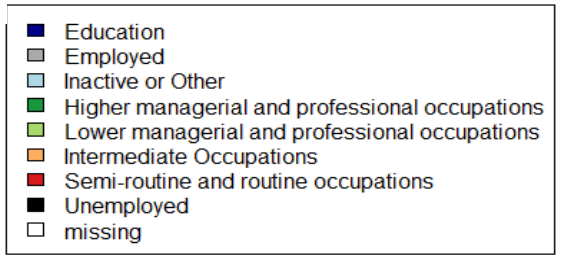


Predominantly inactive starting with late 20's



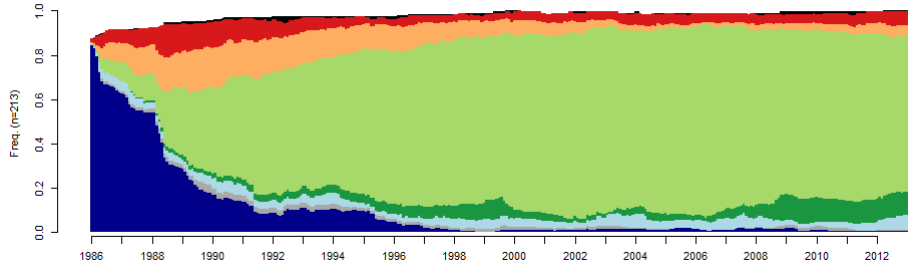
Predominantly intermediate



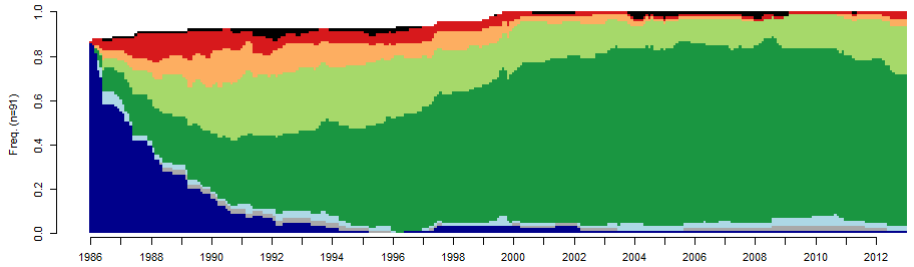


Diploma holders' typologies of trajectories: state distribution plots

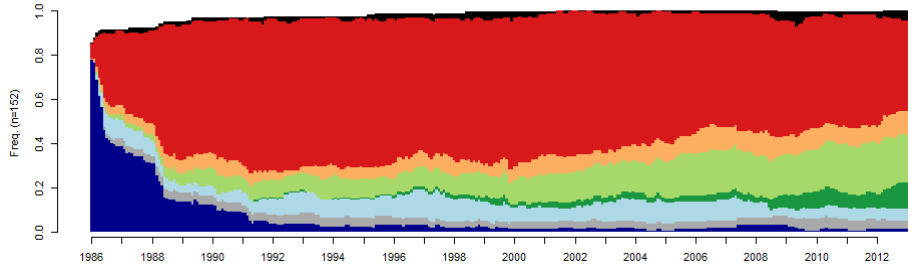
Direct and early entry into NS-SEC2



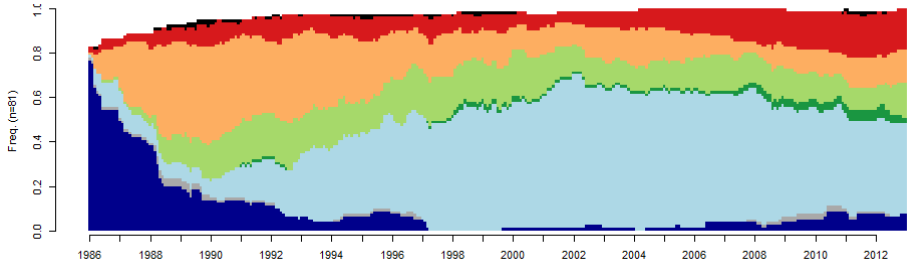
Climbers from NS-SEC2 into NS-SEC1



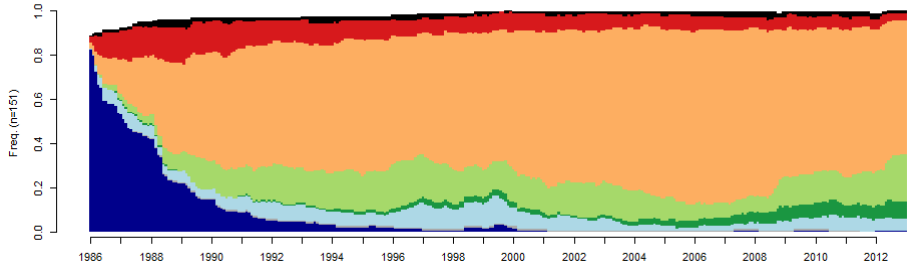
Predominantly Routine and Semi-Routine

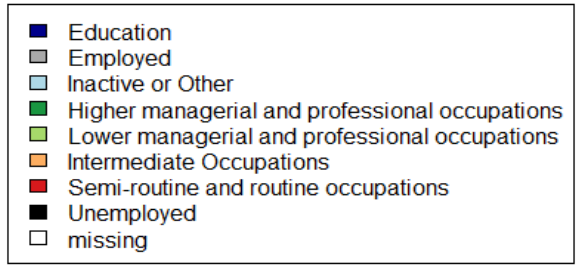


Predominantly inactive starting with late 20's



Predominantly intermediate





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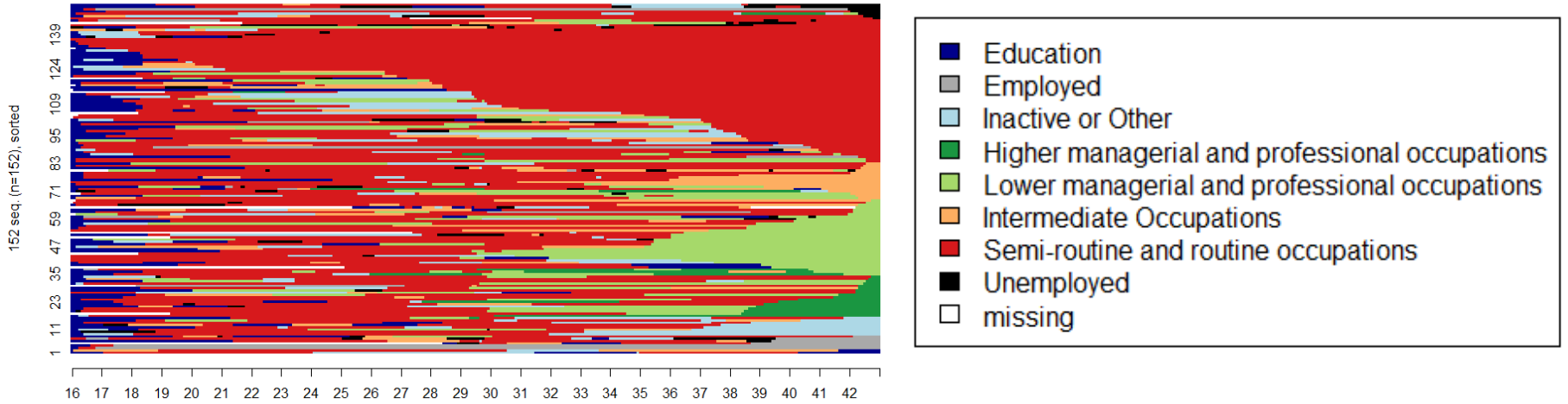
Diploma holders: Predominantly Routine and Semi-Routine



Parental NS-SEC (ref. NS-SEC 1)	M1 Parental class+ Gender	M2 (M1+ Age at graduation)
NSSEC 5-7	0.161**	0.120*
	(0.051)	(0.053)
Female	-0.097**	-0.112***
	(0.032)	(0.032)
Age at graduation (ref.: 20-22)		
32+		0.161***
		(0.040)

*Note: Average marginal effects; Standard errors in parentheses; * p<0.05; ** p<0.01; *** p<0.001;*

Conclusion

- Focusing only on the social class achieved in mid-life masks the turbulence between different trajectories followed by graduates.
- However, assessing early time-points does not take into account the fact that some move on the social class ladder during their life course.
- Exploring the full trajectories highlighted that:

  -some pathways were more advantaged and smooth (e.g. direct entry into the top social class right after graduation) while others were more disadvantaged and turbulent involving a considerable amount of time spent in intermediate or semi-routine & routine occupations.

  -the chances of following an advantaged/disadvantaged trajectory depended on the parental social class.

- Diploma holders – similar patterns but disadvantaged trajectories more prevalent; however, less pronounced differences by social class compared to graduates.
- HE characteristics partially mediated the identified inequalities (key: age at graduation & type of university)

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Thank you!

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Structure or Family?

A comparison of the educational systems of England and Germany and their impact on educational level and employment in adulthood.

Social Inequalities in German Education

- Persistent impact of social origin on educational and vocational pathways.
(Becker/Lauterbach 2016, Hadjar/Gross 2016 …)
  - ➢ Children from higher social class are more often in higher educational tracks than children from lower social class.

- Possible explanation: Early tracking in the school system reinforces the parental influence in school choice and further education. (Watermann/Maaz 2006, Fend 2009)

First step:
Educational systems in Germany and England

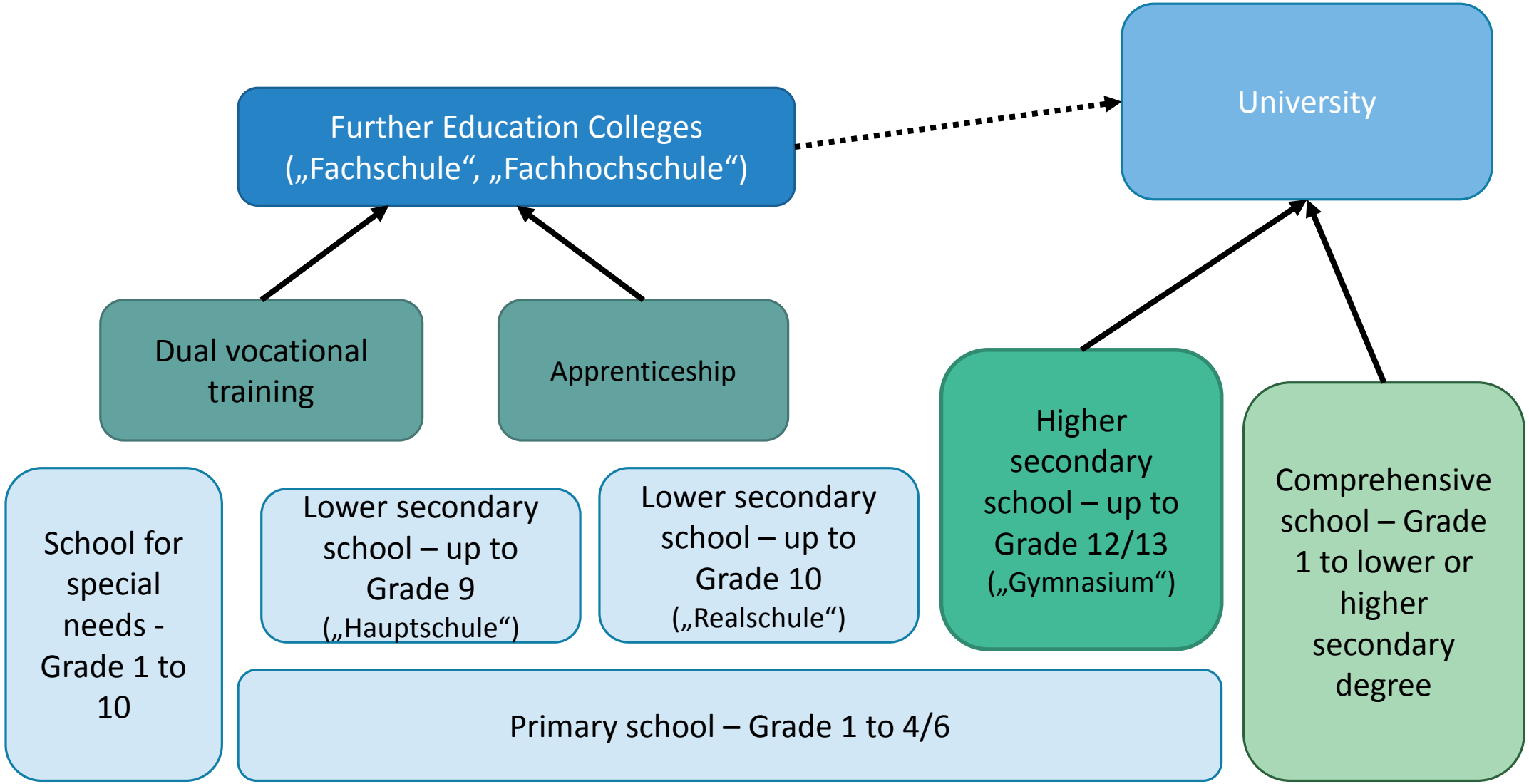
Main Question: *Who is reaching the tertiary degree – and who is not?*

- Do the different ways of educational systems in Germany and England lead to different educational outcomes?

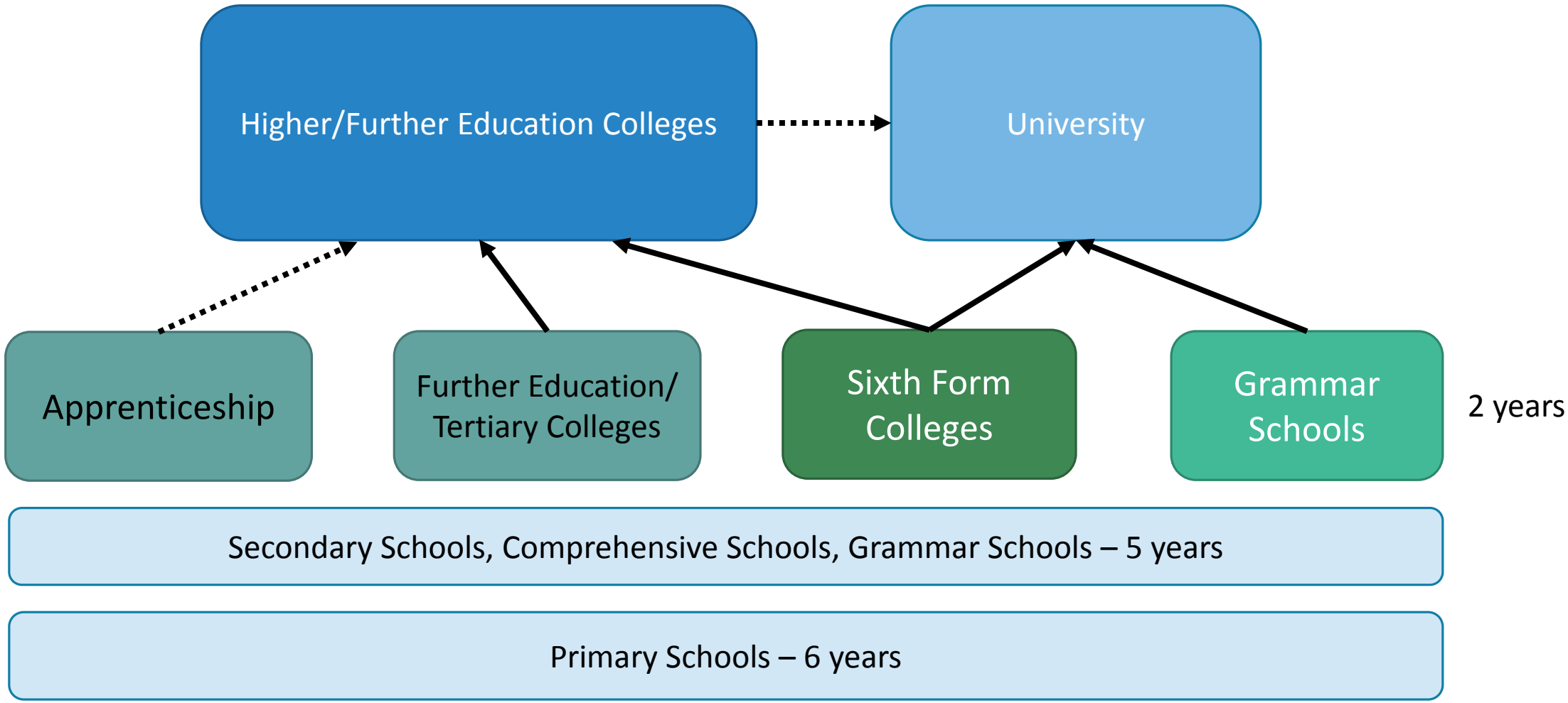
- Theoretical frame: Rational Choice Theory (RTC)
  - Boudon 1974; Breen/Goldthorpe 1997; Coleman 1990; Erikson/Jonsson 1996; Esser 1999 …

    - Educational choices are made by pupils/students, parents, teachers
    - These individuals are making their choice based on rational calculations
    - Lower social class families are expecting higher risks and cost than higher social class families

Educational system in Germany



Educational system in England



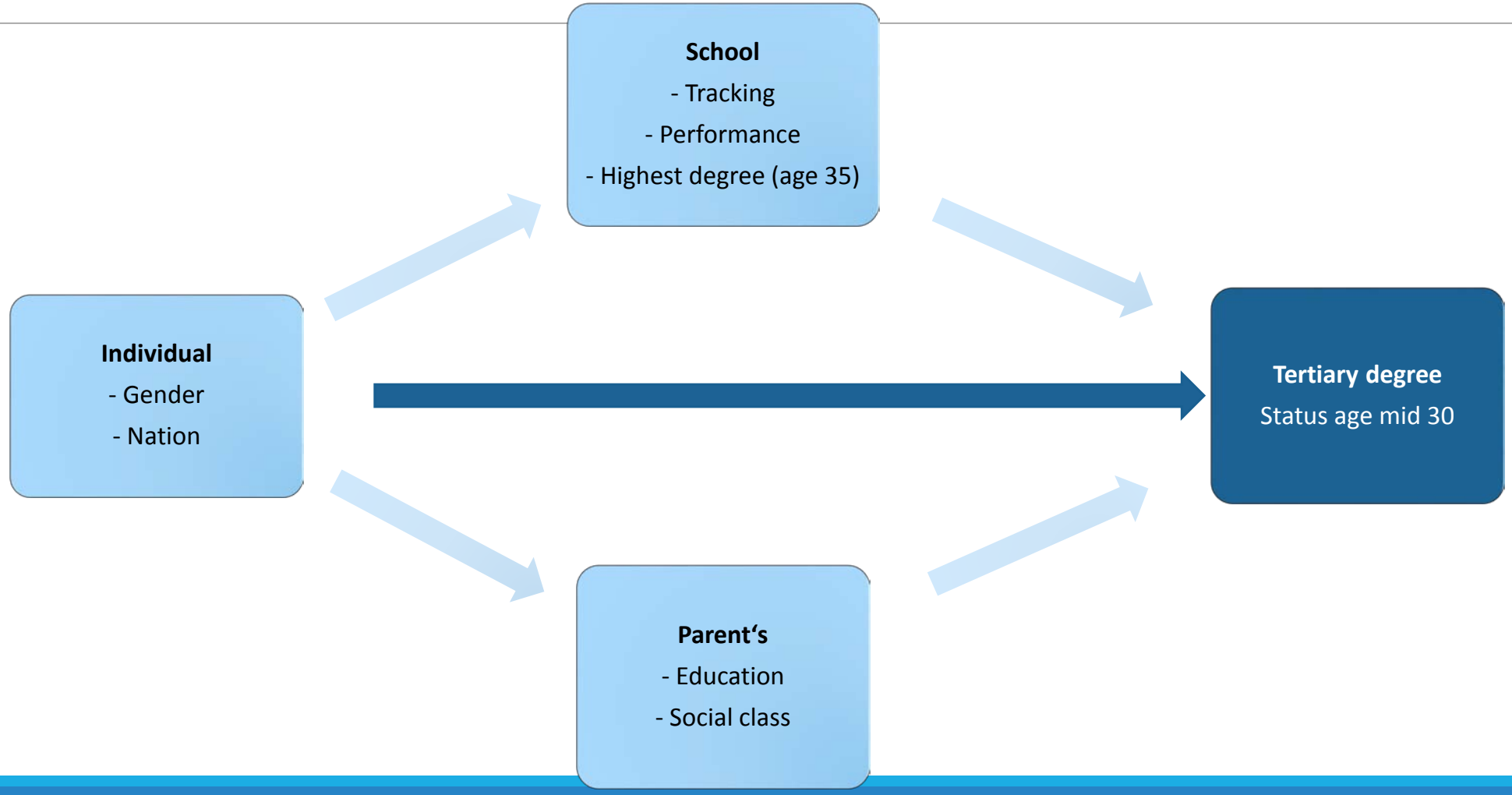
Comparison of educational systems

Two different ways of tracking in educational systems

=

Two different outcomes in educational and vocational status in adulthood?

Research Model



Analysis:
Tertiary degrees in Germany and England

Hypotheses:

H_1: Because of the structural differences more students in England were achieving the tertiary degree than in Germany.

H_2: The impact of parental status on achieving a tertiary degree is higher in England than in Germany.

H_3: The impact of gender in favour of the men is higher in Germany than in England.

Data: German LifE-Study and British Cohort Study 1970

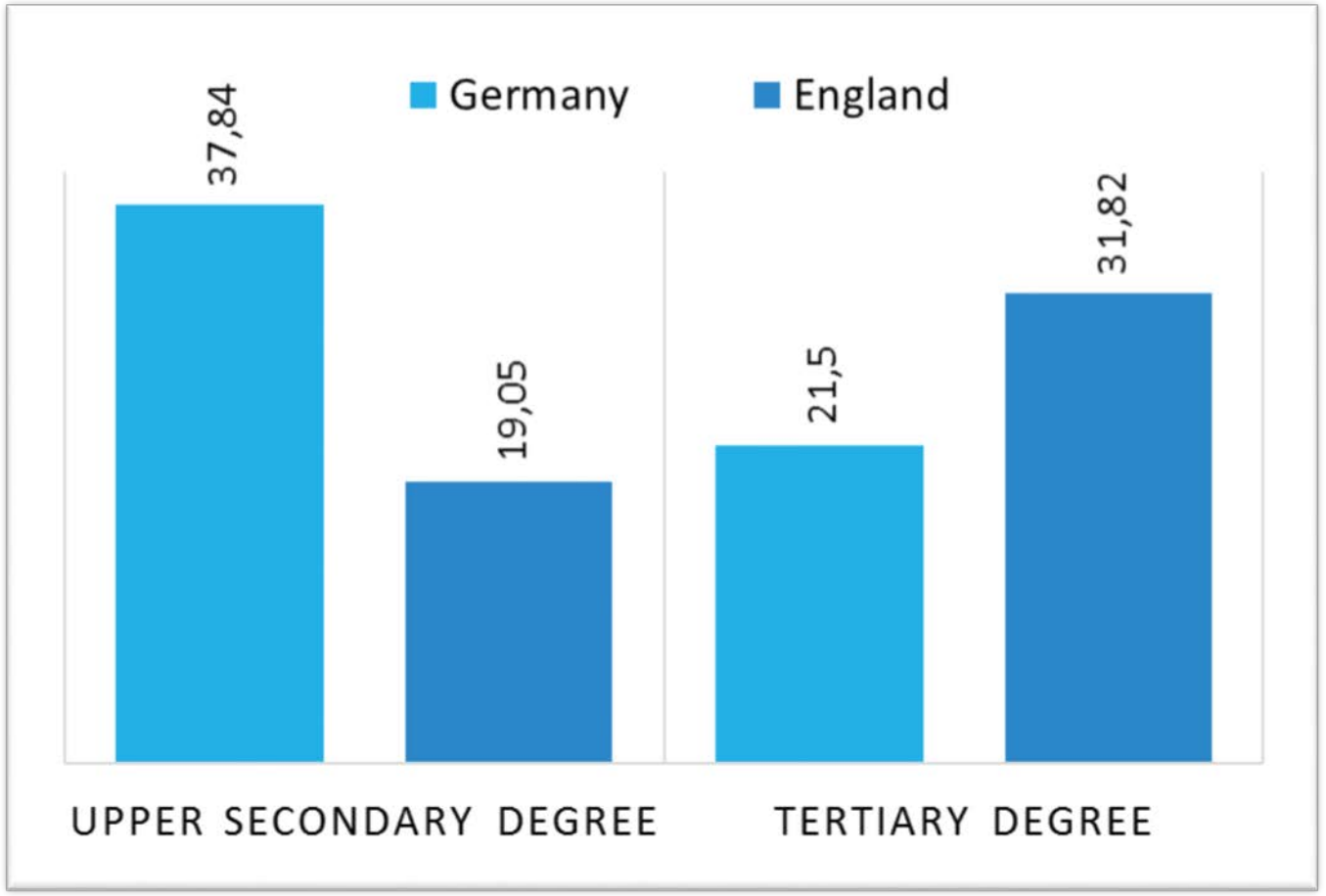
		(West-)Germany: LifE-Study	England: BCS70
Year of Birth		~1966/67	1970
Surveys		Youth (12-16y) & Mid 30 & Mid 40	Birth - Mid 40, about every 5 years
N (valid cases)		1.657	8.017 (only England in youth)
Gender	male	50.63%	47.8%
	female	49.37%	52.2%

A look back

Achieving an upper secondary degree in Germany and England in Comparison:

- More people in Germany were achieving the upper secondary degree than in England in the 1980's: *Germany = 38% (LifE-Study), England = 19% (BCS70)*
- In Germany, especially *men* in the *academic school track* and with *high performance* had the highest chance to get an upper secondary degree.
- In England, especially pupils with *high performance* and *well educated parents* had the highest chance to get an upper secondary degree.

Educational Degrees in Germany and England



Source: LifE-Study (Germany) & BCS70 (England),
Highest degrees at age 35 years

Data: Dependent and independent variables

Dependent variable:	Tertiary degree (age 35)	Dummy - Correspondents to ISCED-level 6 (ISCED 2011)
Covariates:	Gender	Male - female
	Nation	Germany – England
	School level	Lower secondary – upper secondary (age 16)
	Performance	Highest and lowest 20% and average 60%
	Upper secondary degree	Dummy - Correspondents to ISCED-level 3
	Parental secondary education	None – one – both parents with upper secondary degree
	Parental tertiary degree	None – one – both parents with tertiary degree
	Parental social class	Low – middle – high class, basing on Goldthorpe-scheme

Correlations

* Significant at 0.05

Germany: LifE-Study	Tertiary degree	Gender (1=female, 2=male)	School level (1=lower sec, 2=higher sec)	Performance	Upper secondary degree
Tertiary degree	1				
Gender (1=female, 2=male)	.12*	1			
School level (1=lower sec, 2=higher sec)	.41*		1		
Performance	.236*	-.116*	.126*	1	
Upper secondary degree	.65*	.086*	.53*	.288*	1
Parents: upper sec. degree	.289*		.236*	.139*	.293*
Parents: tertiary degree	.279*		.251*	.149*	.306*
Social class of parents	.257*		.277*	.083*	.307*

England: BCS70	Tertiary degree	Gender (1=female, 2=male)	School level (1=lower sec, 2=higher sec)	Performance	Upper secondary degree
Tertiary degree	1				
Gender (1=female, 2=male)		1			
School level (1=lower sec, 2=higher sec)	.231*		1		
Performance	.372*	-.045*	.253*	1	
Upper secondary degree	.492*	-.031*	.284*	.444*	1
Parents: upper sec. degree	.258*		.147*	.213*	.239*
Parents: tertiary degree	.306*		.217*	.248*	.282*
Social class of parents	.264*		.233*	.223*	.253*

Nominal logistic regression predicting the achievement of the tertiary degree (average marginal effects)

	Reference: No tertiary degree		Model 1	Model 2	Model 3	*Male*	*Female*
	Gender	Male *Ref: female*	.017	.012	**.039***	-	-
	Nation	England *Ref: Germany*	**.234*****	**.157*****	**.233*****	**.178*****	**.28*****
School	**School level**	Upper secondary/academic *Ref: lower sec/vocational*	**.467*****		**.122*****	**.18*****	**.081****
	Performance	Lowest 20%	**-.083*****		**-.062****	**-.074***	-.048
		Highest 20%	**.113*****		**.102*****	**.088****	**.124*****
		Ref: average 60%					
	Upper secondary degree	Has degree *Ref: No upper sec. degree*	**.435*****		**.389*****	**.429*****	**.345*****
Parent's education	**Upper secondary degree**	One parent		**.094*****	**.048***	.011	**.077***
		Both parent's		**.148*****	**.131****	.073	**.173****
		Ref: none					
	Tertiary degree	One parent		**.214*****	**.09****	**.146****	.054
		Both parent's		**.312*****	.055	.092	.033
		Ref: none					
Parent's social class	**Social class (Goldthorpe)[1]**	Lower class		**-.06*****	-.021	-.004	-.042
		Higher class		**.093*****	.019	.002	.032
		Ref: middle class					
	N (valid cases)		3.348	5.475	2.319	1.059	1.260
	R^2		.335	.15	.37	.40	.36

***p<0.001; **p<0.01; *p<0.05; +p<0.10 Source: LifE-Study (Germany), BCS70 (England)

[1] Social class by Goldthorpe: lower class= semi-skilled/unskilled, higher class= managerial/professionals, middle class= skilled manual/non-manual

Nominal logistic regression predicting the achievement of the tertiary degree by nation (average marginal effects)

	Reference: No tertiary degree		**Model 1**				
			Germany	England			
	Gender	Male *Ref: female*	**.099*** **	**-.02+**			
School	**School level**	Upper secondary/academic *Ref: lower sec/vocational*					
	Performance	Lowest 20% Highest 20% *Ref: average 60%*					
	Upper secondary degree	Has degree *Ref: No upper sec. degree*					
Parent's education	**Upper secondary degree**	One parent Both parent's *Ref: none*					
	Tertiary degree	One parent Both parent's *Ref: none*					
Parent's social class	**Social class (Goldthorpe)[1]**	Lower class Higher class *Ref: middle class*					
	N (valid cases)		1.642	8.426			
	R^2		.01	.00			

***p<0.001; **p<0.01; *p<0.05; +p<0.10

Source: LifE-Study (Germany), BCS70 (England)

[1] Social class by Goldthorpe: lower class= semi-skilled/unskilled, higher class= managerial/professionals, middle class= skilled manual/non-manual

Nominal logistic regression predicting the achievement of the tertiary degree by nation (average marginal effects)

	Reference: No tertiary degree		Model 1		Model 2			
			Germany	England	Germany	England		
	Gender	Male *Ref: female*	**.099*** **	**-.02+**	**.064*** **	**-.037+**		
School	**School level**	Upper secondary/academic *Ref: lower sec/vocational*			**.091*** **	**.161*** **		
	Performance	Lowest 20%			-.024	**-.149*** **		
		Highest 20%			**.065** **	**.186*** **		
		Ref: average 60%						
	Upper secondary degree	Has degree *Ref: No upper sec. degree*			**.48*** **	**.366*** **		
Parent's education	**Upper secondary degree**	One parent						
		Both parent's						
		Ref: none						
	Tertiary degree	One parent						
		Both parent's						
		Ref: none						
Parent's social class	**Social class (Goldthorpe)[1]**	Lower class						
		Higher class						
		Ref: middle class						
	N (valid cases)		1.642	8.426	1.629	1.719		
	R^2		.01	.00	.43	.25		

***p<0.001; **p<0.01; *p<0.05; +p<0.10

Source: LifE-Study (Germany), BCS70 (England)

[1] Social class by Goldthorpe: lower class= semi-skilled/unskilled, higher class= managerial/professionals, middle class= skilled manual/non-manual

Nominal logistic regression predicting the achievement of the tertiary degree by nation (average marginal effects)

	Reference: No tertiary degree		Model 1		Model 2		Model 3		
			Germany	England	Germany	England	Germany	England	
	Gender	Male *Ref: female*	**.099*** **	**-.02+**	**.064*** **	**-.037+**	**.10*** **	-.015	
School	**School level**	Upper secondary/academic *Ref: lower sec/vocational*			**.091*** **	**.161*** **			
	Performance	Lowest 20%			-.024	**-.149*** **			
		Highest 20%			**.065** **	**.186*** **			
		Ref: average 60%							
	Upper secondary degree	Has degree *Ref: No upper sec. degree*			**.48*** **	**.366*** **			
Parent's education	**Upper secondary degree**	One parent					.078	**.103*** **	
		Both parent's					**.248** **	**.147** **	
		Ref: none							
	Tertiary degree	One parent					**.172** **	**.224*** **	
		Both parent's					.079	**.341*** **	
		Ref: none							
Parent's social class	**Social class (Goldthorpe)[1]**	Lower class					-.041	**-.065*** **	
		Higher class					**.102*** **	**.088*** **	
		Ref: middle class							
	N (valid cases)		1.642	8.426	1.629	1.719	1.24	4.235	
	R^2		.01	.00	.43	.25	.13	.14	

***p<0.001; **p<0.01; *p<0.05; +p<0.10

Source: LifE-Study (Germany), BCS70 (England)

[1] Social class by Goldthorpe: lower class= semi-skilled/unskilled, higher class= managerial/professionals, middle class= skilled manual/non-manual

Nominal logistic regression predicting the achievement of the tertiary degree by nation (average marginal effects)

	Reference: No tertiary degree		Model 1		Model 2		Model 3		Model 4	
			Germany	England	Germany	England	Germany	England	Germany	England
	Gender	Male *Ref: female*	**.099*** **	**-.02+**	**.064*** **	**-.037+**	**.10*** **	-.015	**.081*** **	-.03
School	**School level**	Upper secondary/academic *Ref: lower sec/vocational*			**.091*** **	**.161*** **			**.084*** **	**.158*** **
	Performance	Lowest 20%			-.024	**-.149*** **			-.022	**-.138** **
		Highest 20%			**.065** **	**.186*** **			**.057***	**.173*** **
		Ref: average 60%								
	Upper secondary degree	Has degree *Ref: No upper sec. degree*			**.48*** **	**.366*** **			**.456*** **	**.301*** **
Parent's education	**Upper secondary degree**	One parent					.078	**.103*** **	.043	**.09** **
		Both parent's					**.248** **	**.147** **	**.208** **	.033
		Ref: none								
	Tertiary degree	One parent					**.172** **	**.224*** **	.051	**.069+**
		Both parent's					.079	**.341*** **	-105	**.123+**
		Ref: none								
Parent's social class	**Social class (Goldthorpe)[1]**	Lower class					-.041	**-.065*** **	.009	**.111** **
		Higher class					**.102*** **	**.088*** **	.018	**.129***
		Ref: middle class								
	N (valid cases)		1.642	8.426	1.629	1.719	1.24	4.235	1.232	1.087
	R^2		.01	.00	.43	.25	.13	.14	.44	.29

***p<0.001; **p<0.01; *p<0.05; +p<0.10

Source: LifE-Study (Germany), BCS70 (England)

[1] Social class by Goldthorpe: lower class= semi-skilled/unskilled, higher class= managerial/professionals, middle class= skilled manual/non-manual

Nominal logistic regression predicting the achievement of the tertiary degree by gender and nation (average marginal effects)

	Reference: No tertiary degree		Germany	
			Male	Female
School	**School level**	Upper secondary/academic	**.124*** **	**.06+**
		Ref: lower sec/vocational		
	Performance	Lowest 20%	-.025	-.003
		Highest 20%	**.065+**	**.065***
		Ref: average 60%		
	Upper secondary degree	Has degree	**.546*** **	**.354*** **
		Ref: No upper sec. degree		
Parent's education	**Upper secondary degree**	One parent	-.003	.087
		Both parent's	**.185***	**.269***
		Ref: none		
	Tertiary degree	One parent	.077	.019
		Both parent's	-.131	-.112
		Ref: none		
Parent's social class	**Social class (Goldthorpe)[1]**	Lower class	.034	-.022
		Higher class	.013	.022
		Ref: middle class		
	N (valid cases)		613	619
	R^2		.51	.36

***p<0.001; **p<0.01; *p<0.05; +p<0.10

Source: LifE-Study (Germany), BCS70 (England)

[1] Social class by Goldthorpe: lower class= semi-skilled/unskilled, higher class= managerial/professionals, middle class= skilled manual/non-manual

Nominal logistic regression predicting the achievement of the tertiary degree by gender and nation (average marginal effects)

	Reference: No tertiary degree		Germany		England	
			Male	Female	Male	Female
School	**School level**	Upper secondary/academic	**.124*** **	**.06+**	**.191****	**.130***
		Ref: lower sec/vocational				
	Performance	Lowest 20%	-.025	-.003	**-.152***	**-.132***
		Highest 20%	**.065+**	**.065***	**.153****	**.19*****
		Ref: average 60%				
	Upper secondary degree	Has degree	**.546*****	**.354*****	**.26*****	**.333*****
		Ref: No upper sec. degree				
Parent's education	**Upper secondary degree**	One parent	-.003	.087	.044	**.09+**
		Both parent's	**.185***	**.269***	.074	**.158+**
		Ref: none				
	Tertiary degree	One parent	.077	.019	**.198****	.053
		Both parent's	-.131	-.112	**.197***	.07
		Ref: none				
Parent's social class	**Social class (Goldthorpe)[1]**	Lower class	.034	-.022	-.019	-.07
		Higher class	.013	.022	-.017	.025
		Ref: middle class				
	N (valid cases)		613	619	446	641
	R^2		.51	.36	.29	.29

***p<0.001; **p<0.01; *p<0.05; +p<0.10

Source: LifE-Study (Germany), BCS70 (England)

[1] Social class by Goldthorpe: lower class= semi-skilled/unskilled, higher class= managerial/professionals, middle class= skilled manual/non-manual

Results:
Tertiary degrees in Germany and England

Hypotheses:

H_1: Because of the structural differences more students in England were achieving the tertiary degree than in Germany.

Confirmed

H_2: The impact of parental status on achieving a tertiary degree is higher in England than in Germany.

Confirmed

H_3: The impact of gender in favour of the men is higher in Germany than in England.

Confirmed

Conclusion

- There are significant differences in achieving a tertiary degree, the parental background and gender between Germany and England.
- A first explanation is the structural difference between the educational systems.
- Furthermore it‘s shown, that in both nations the parental status is influencing the achievement of the tertiary degree - but in different ways.
- A further significant result is the gender difference - again in different ways for both nations

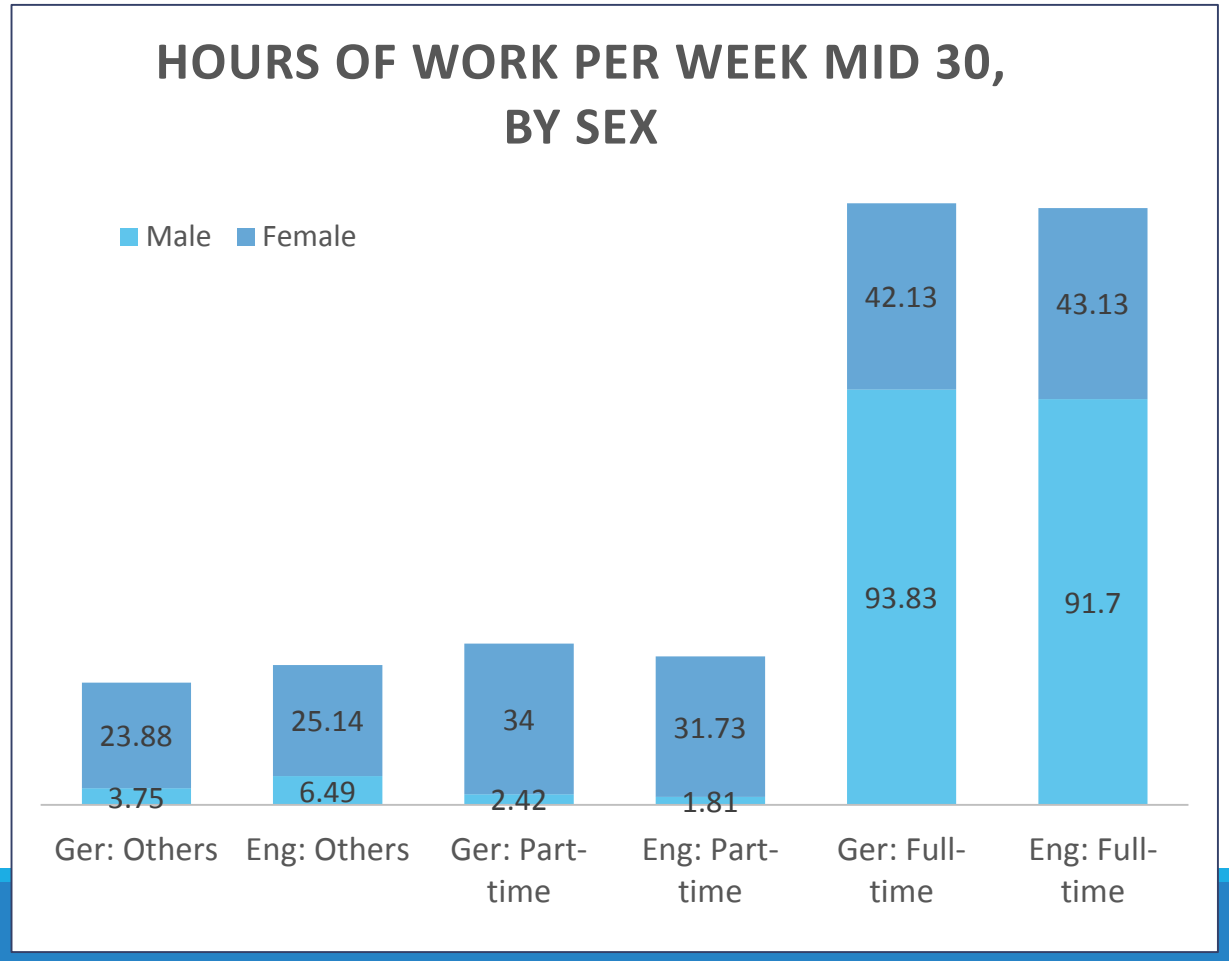
Limitations

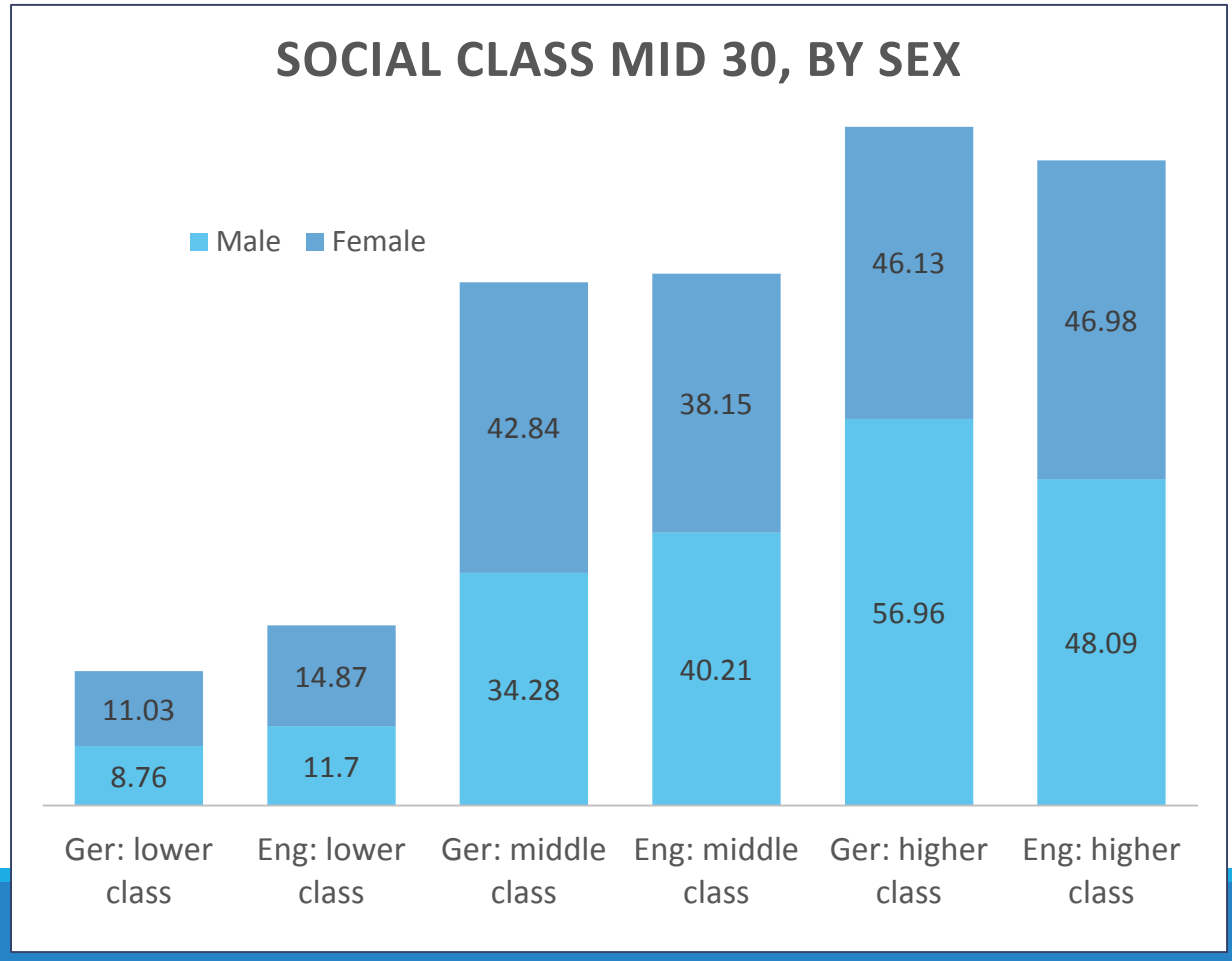
- Comparison of the different educational systems is problematic because of the different understandings of education and its rules and terms. Structural differences will be just one part of the explantions.

- There are different surveys with different questionnaires and different items

Next steps?

- **Status and social class in Germany and England** (Source: LifE-Study & BCS70)





Next steps?

- **Bringing in a third nation: Canada**

  In the Canadian comprehensive schools almost all students are taught from Grade 1 to Grade 12 without tracking in different school types at any point.

  > Third pathway with different outcomes?

Thank you

Contact: wohlbran@uni-potsdam.de

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Institute of Education

UCL

Origins, Education and Destinations in BCS70

Alice Sullivan*, Samantha Parsons, Dick Wiggins, George Ploubidis, Francis Green.
*alice.sullivan@ucl.ac.uk

CENTRE FOR LONGITUDINAL STUDIES

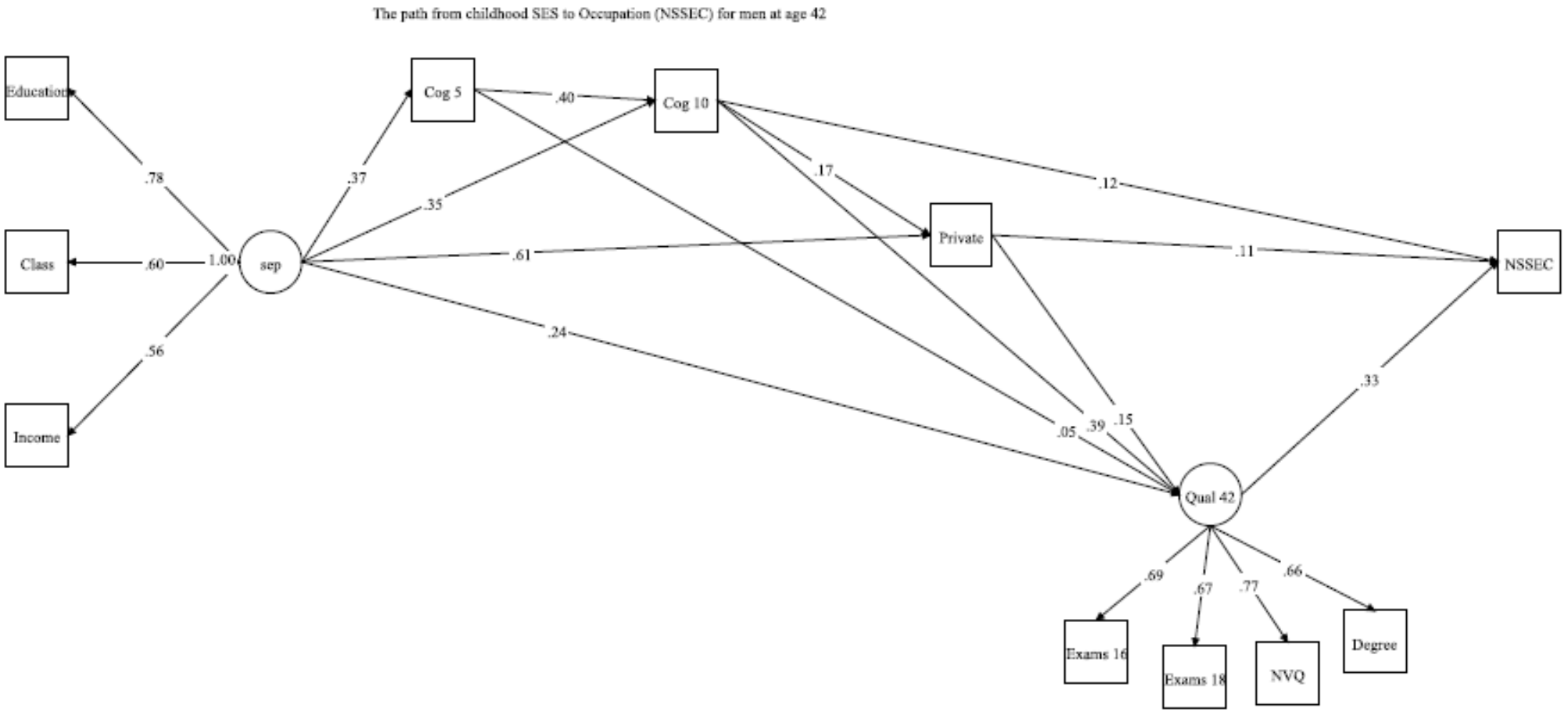
Background

- Substantial literature on social mobility, OED and ‘DESO’
- Our previous work examines the way that various dimensions of cognitive attainment, educational attainment and schooling influence social class destinations: Sullivan, A., Parsons, S., Green, F., Wiggins, R. D., & Ploubidis, G. (2017). The path from social origins to top jobs: social reproduction via education. *The British Journal of Sociology*.
- We build on this to consider whether pathways differ according to social class, earnings, and wealth.

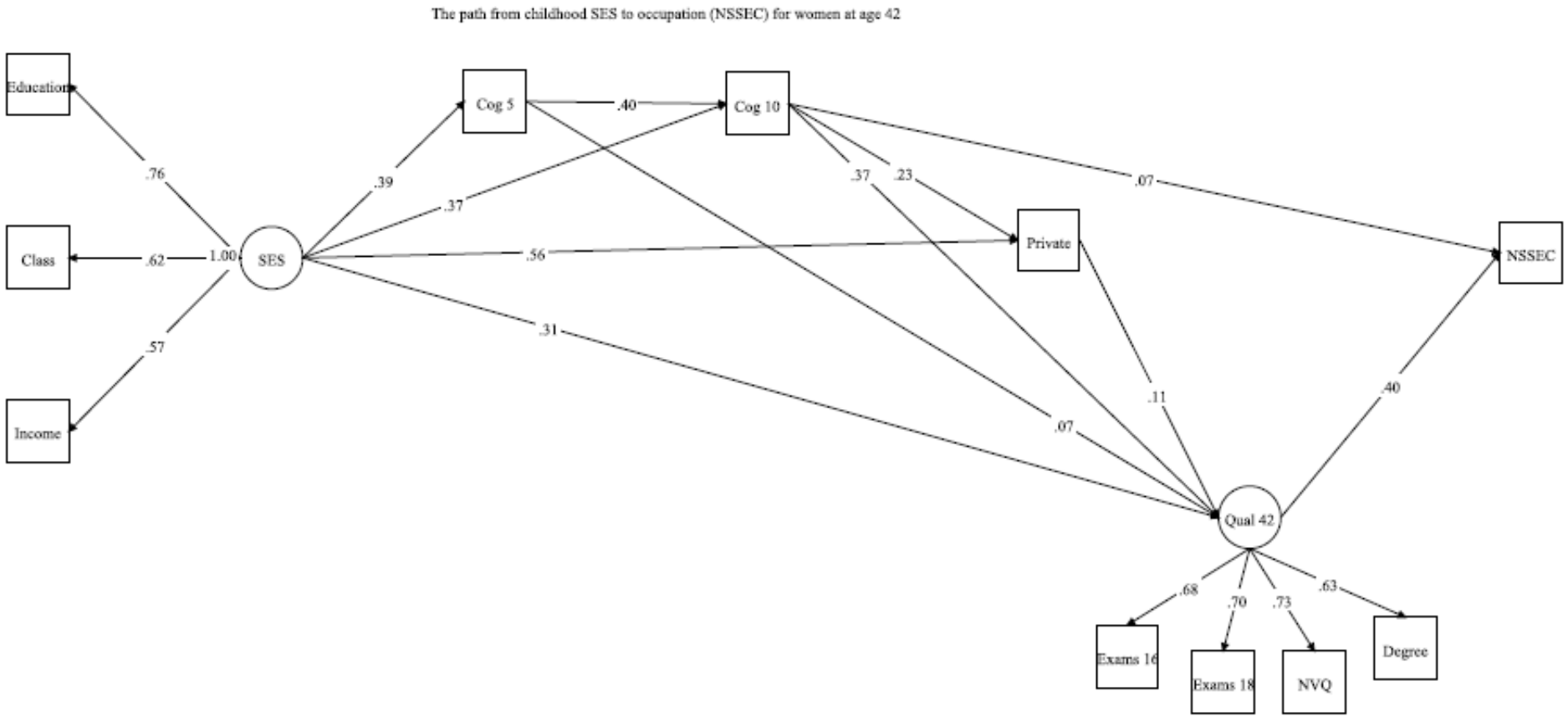
Questions

- Do the roles of the following factors vary according to whether destinations are captured through income, social class or wealth:
  - Socio-economic origins
  - Cognitive scores at five and ten
  - Type of secondary school
  - Educational qualifications
- Are there differences for men and women?

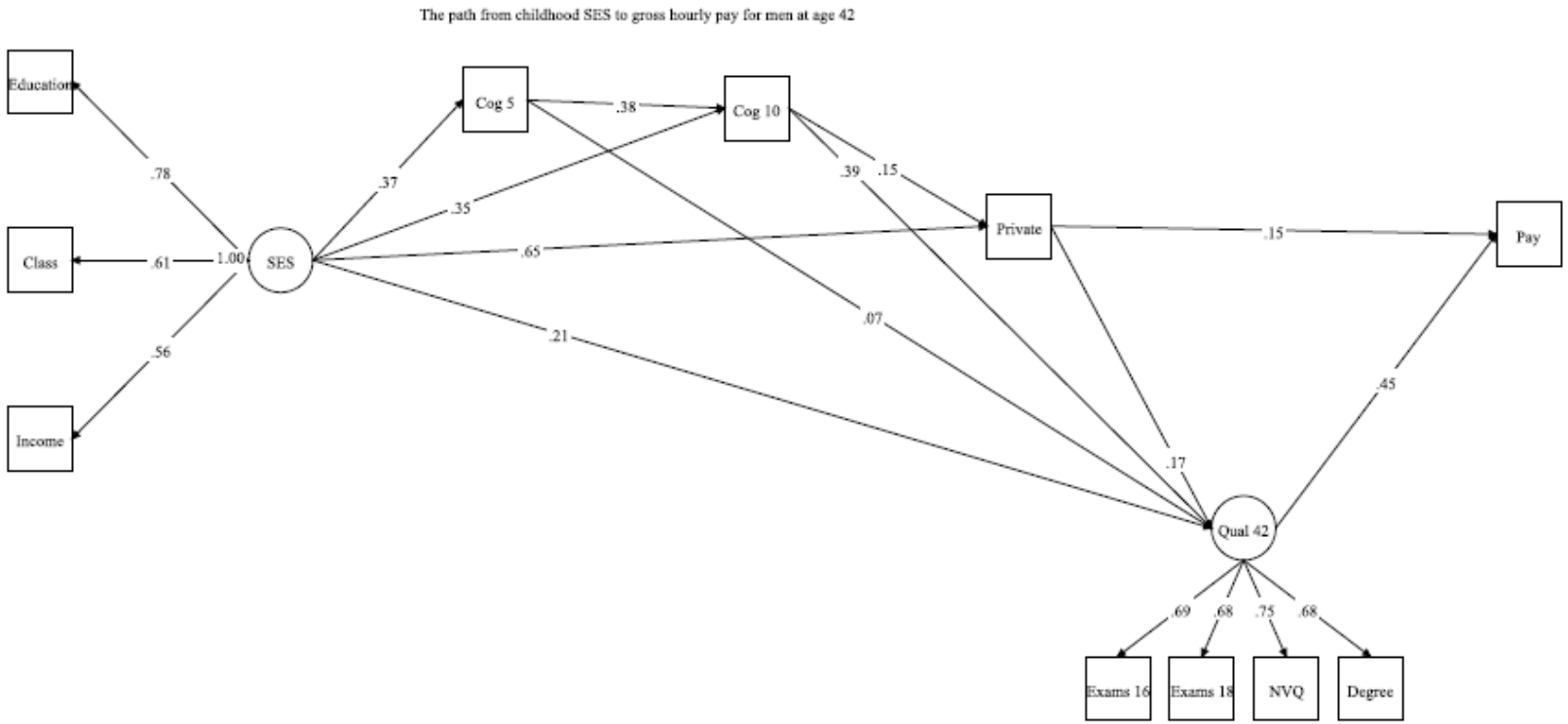
Social class (Men)



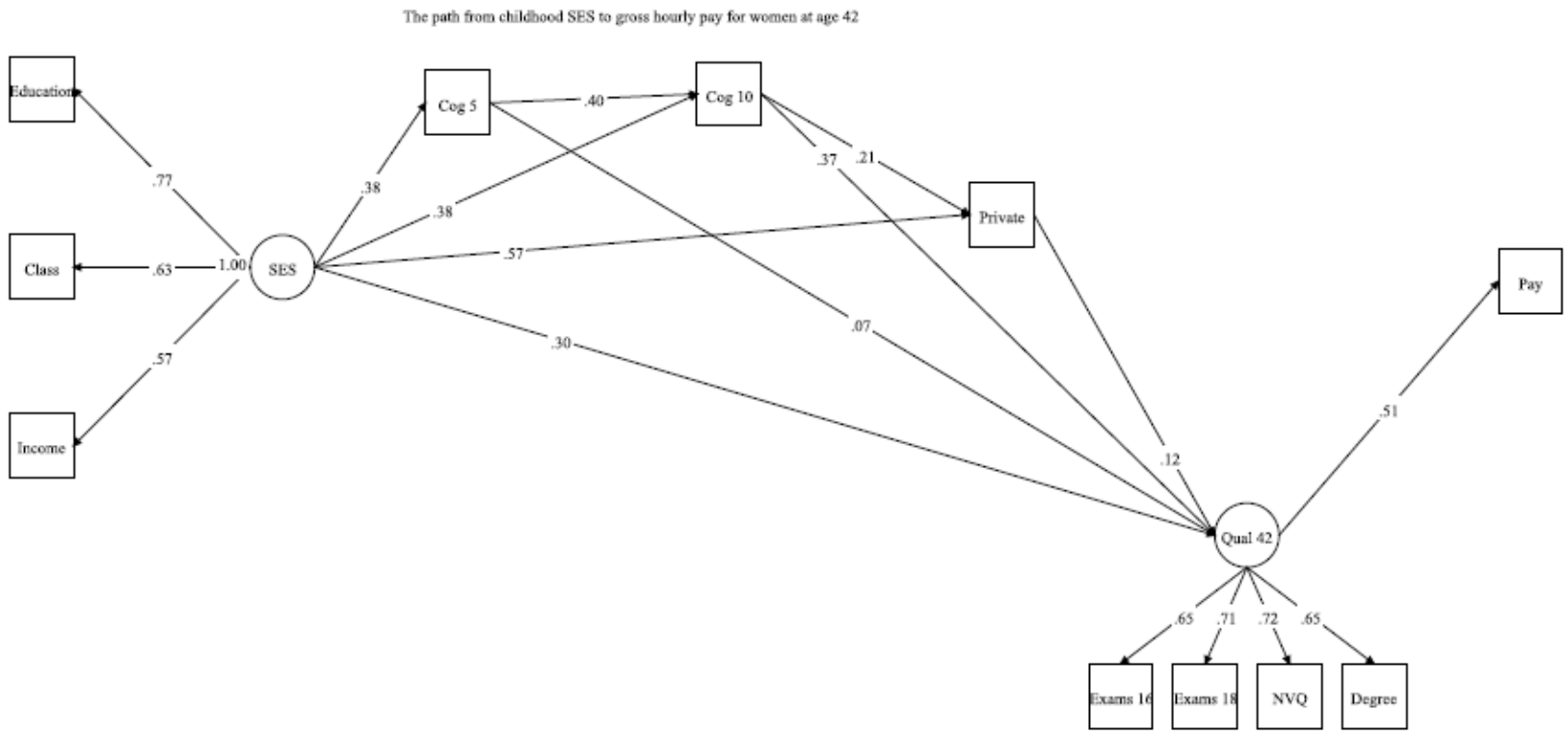
Social class (Women)



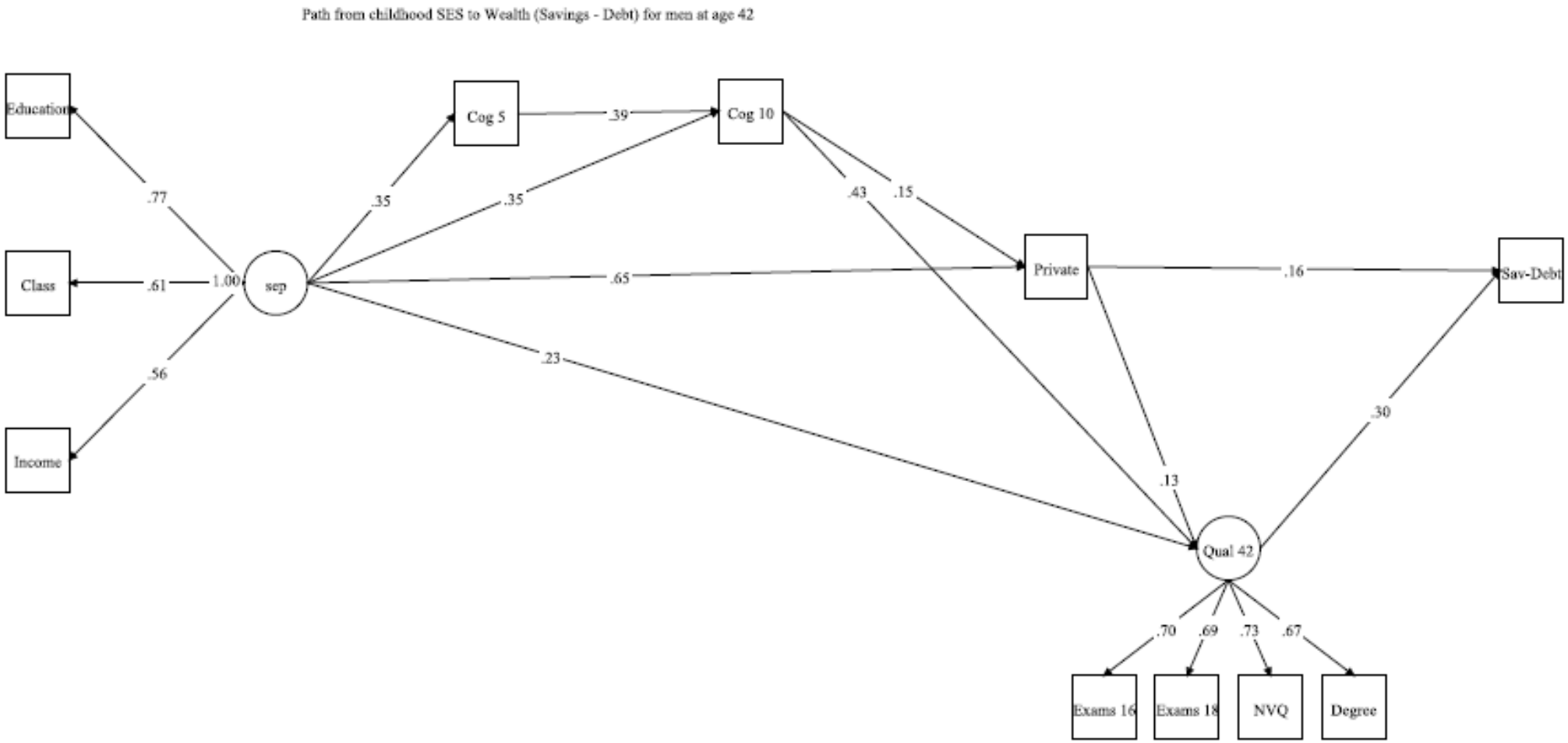
Earnings (men)



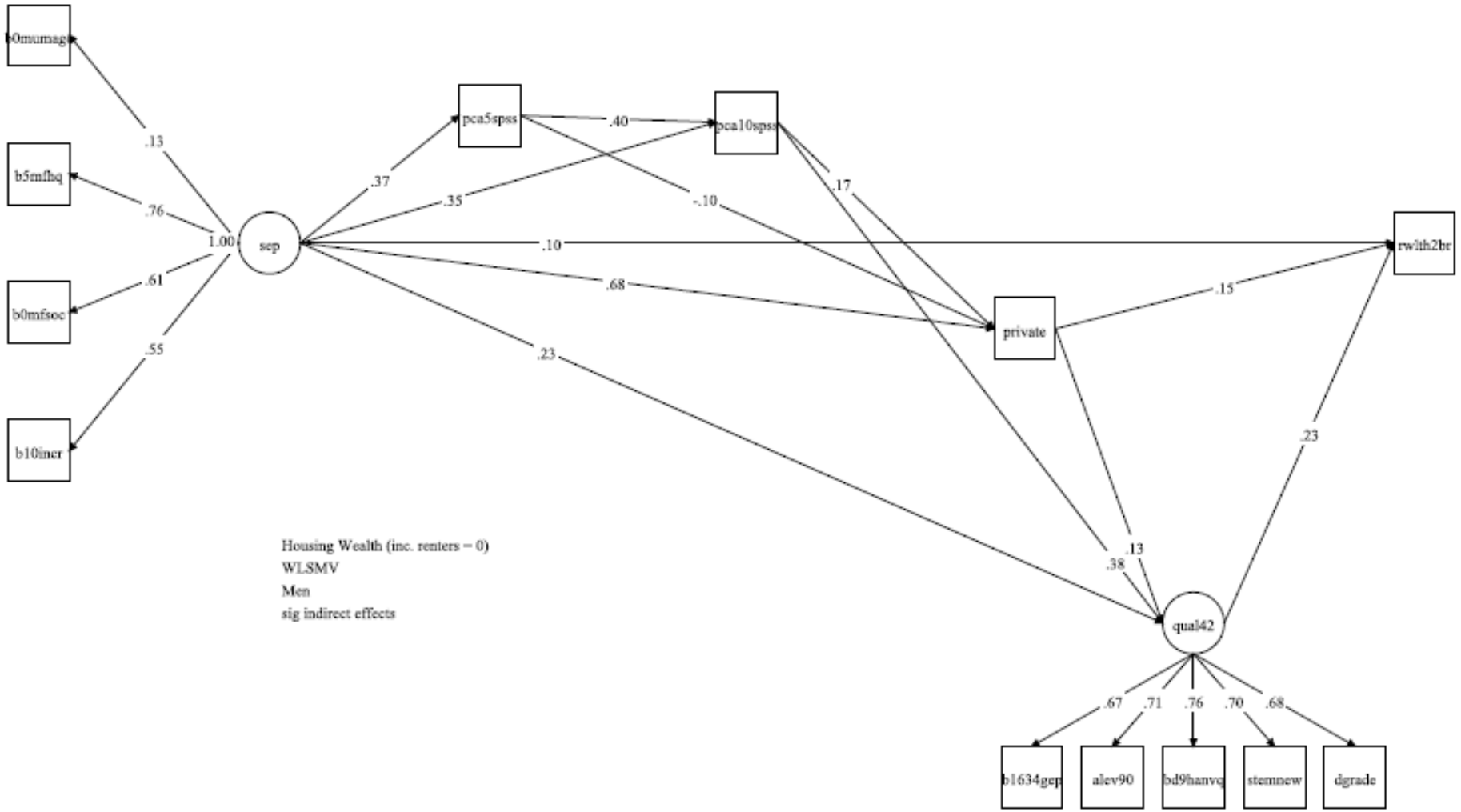
Earnings (women)



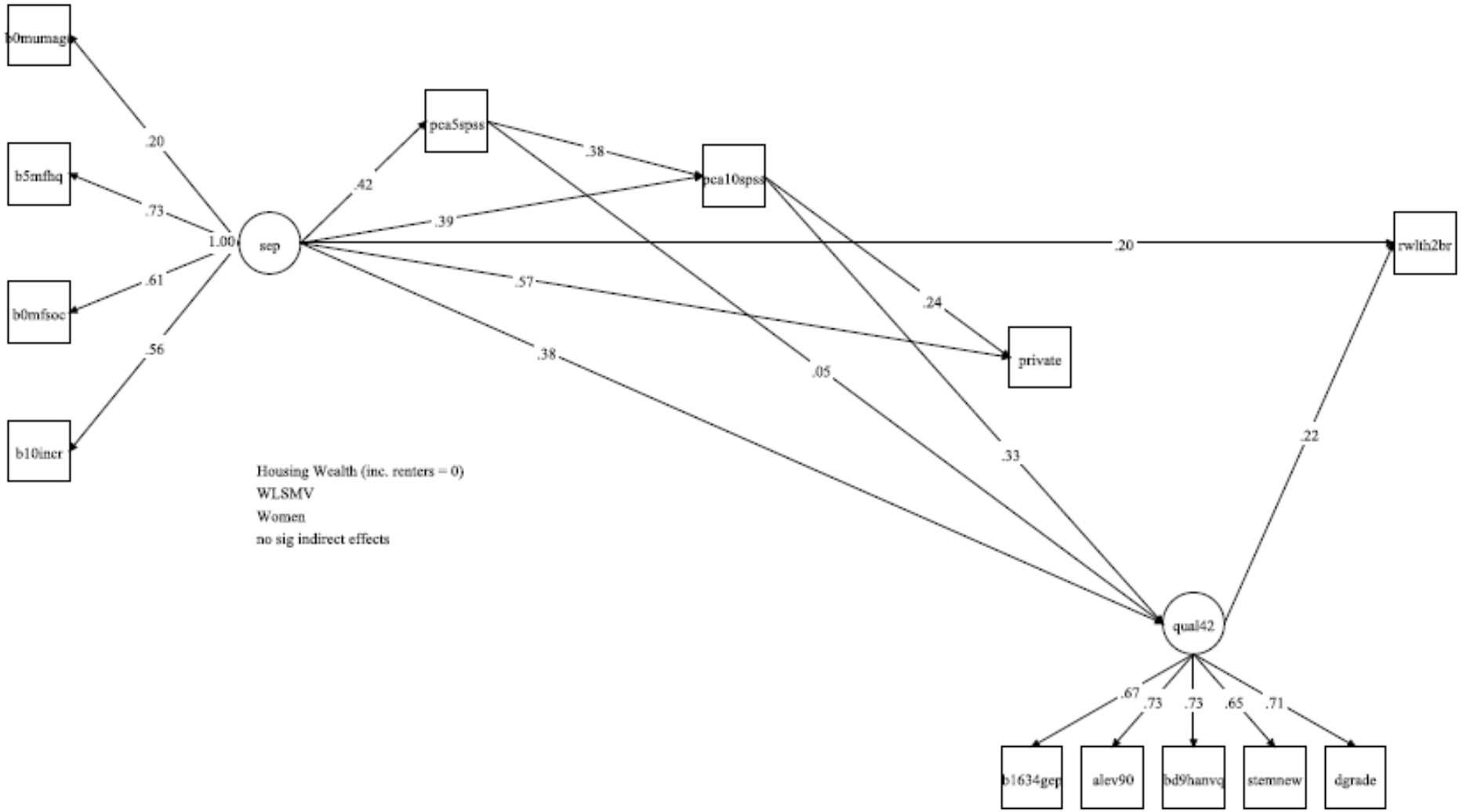
Wealth (Savings-debt) Men



Housing wealth (men)



Housing wealth (women)



Discussion

- Direct path from private schools to both class, earnings and wealth at 42 for men only
- Cognitive scores at ten directly influence social class, but not earnings or wealth, for both sexes.
- Direct role of childhood social origins (DESO) is apparent for housing wealth only. Have social scientists focussed too much on social mobility/ income mobility, rather than wealth?