

MOTIVATION

- ▶ There are large SES gaps in access to universities in England.
- ▶ Previous research suggests this is largely driven by prior attainment (Chowdry et al., 2013), but in previous work I showed that a gradient in applications persists (Anders, 2012).
- ▶ Yet young people's expectations of applying to university start out high across the board (Chowdry et al., 2010) - when and why does this change?

AIMS

- ▶ Explore young people's changes in expectations of applying to university between age 14 and 17 using duration modelling.
- ▶ Analyse transitions from 'likely' to 'unlikely' and vice versa, making use of available information on the timing of events (including multiple transitions back and forth) and changes in young people's circumstances.
- ▶ Analyse how SES affects these transitions, controlling for other relevant characteristics including prior attainment.
- ▶ Explore how young people's expectations respond to new information on academic attainment at age 16, and whether this varies by SES.

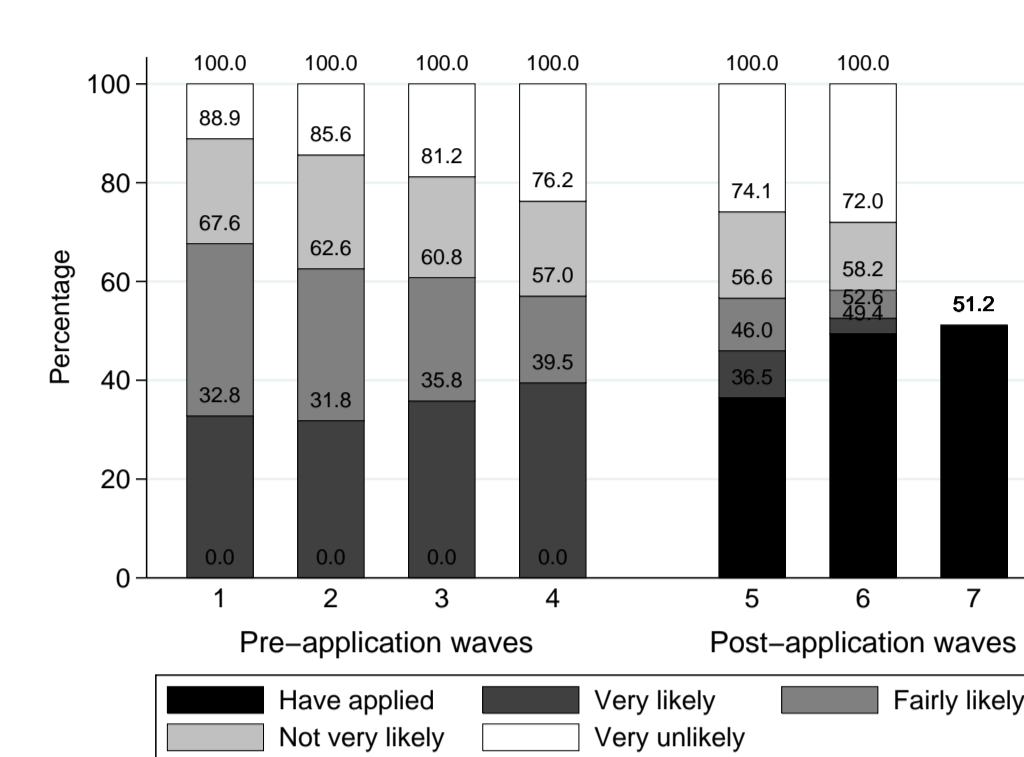
KEY FINDINGS

- ▶ Strong association between SES and probability of transition both from 'likely to unlikely' and 'unlikely to likely'.
- ▶ Persists even controlling for demographic characteristics, school factors and young people's prior academic performance.
- ▶ Evidence of differing effects of new information from academic performance at age 16 by SES (not shown on this poster; details available on request).

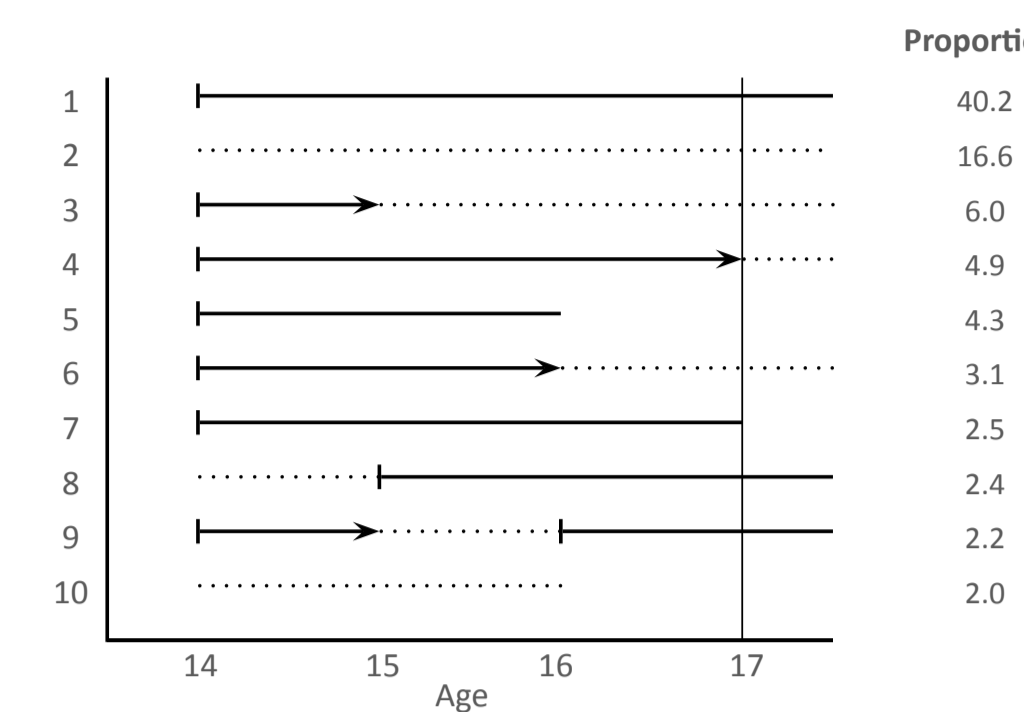
DATA

- ▶ The Longitudinal Study of Young People in England (LSYPE) is a major panel survey. Tracks the experiences of one cohort of young people over seven years (with one interview per year), from approximately age 14 (in 2004) to age 20 (in 2010).
- ▶ Starts out with 15,770 at age 14, though falls to 11,449 by age 17, and to 8,682 by age 20.
- ▶ Young people are asked "How likely do you think it is that you will apply to university?" and asked to choose from the options 'very likely', 'fairly likely', 'not very likely', and 'not at all likely'.
- ▶ This is asked every year throughout the survey (up to age 19). I concentrate on measurement up to age 17, as after this point individuals start applying to university. For this application, I dichotomise this into 'likely to apply' and 'unlikely to apply'.

CHANGE IN EXPECTATIONS & COMMON SEQUENCES



Notes: Sample: Weighted wave 7 respondents with non-missing data on university expectations. Unweighted sample size = 8,029. Data labels show cumulative percentages.

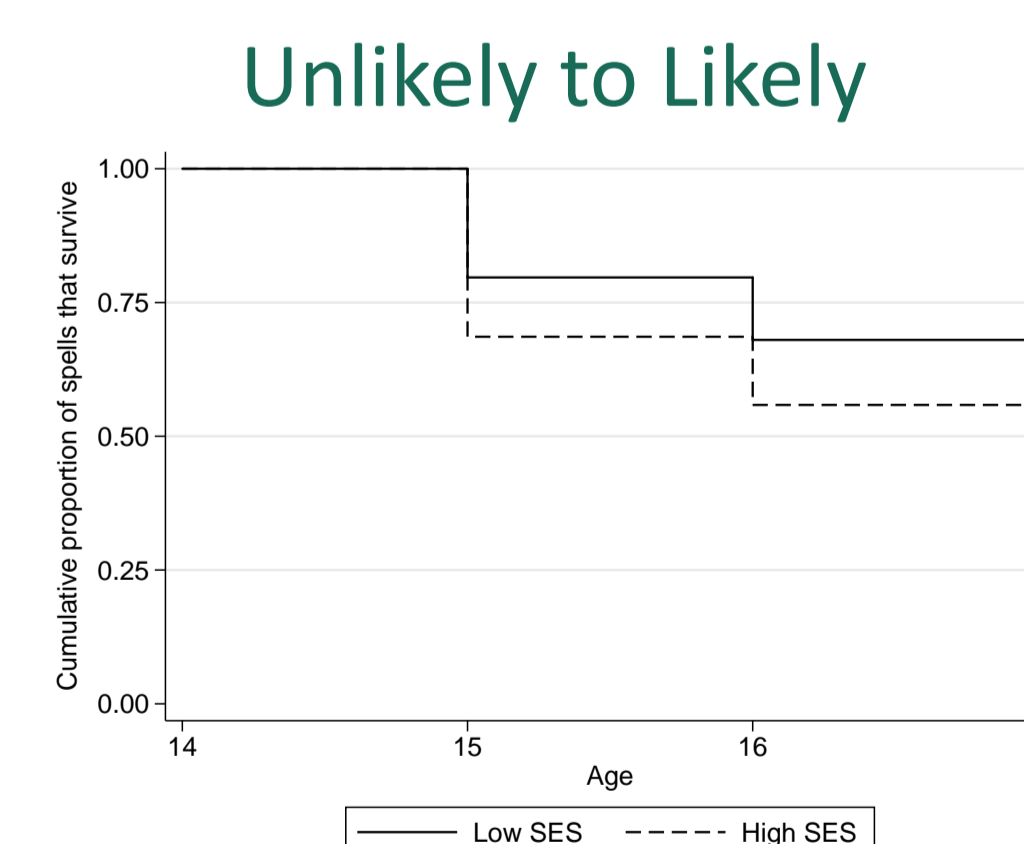
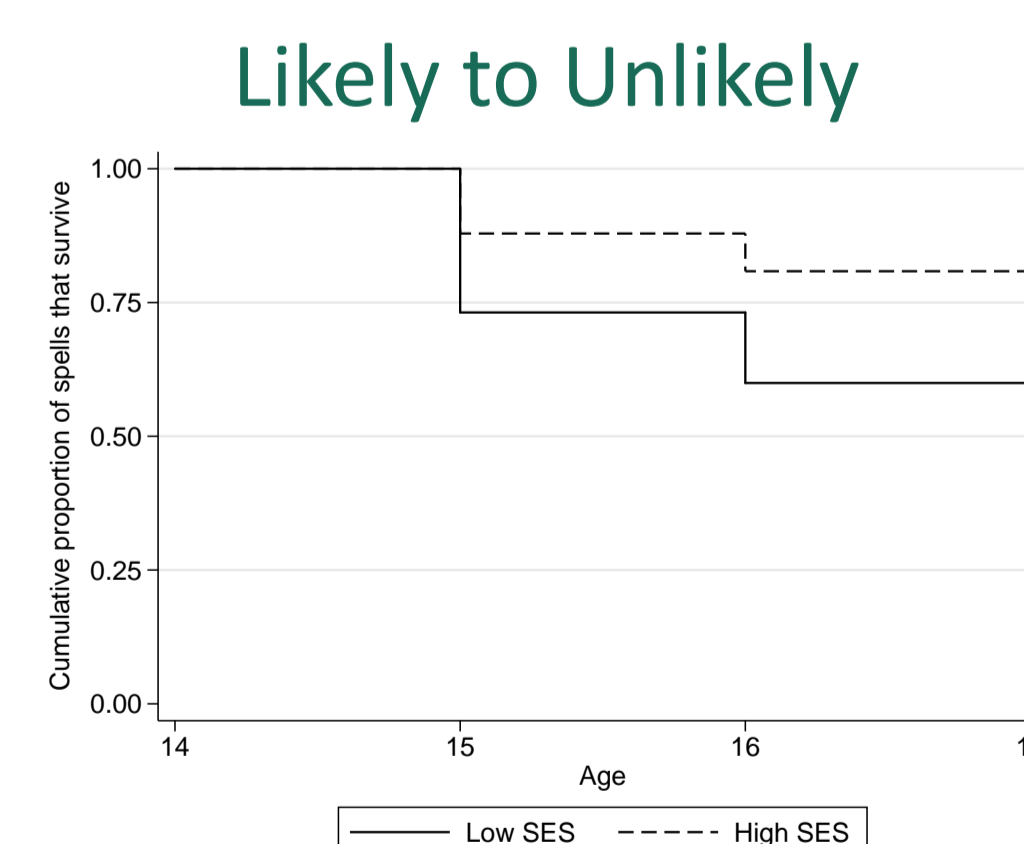


Notes: Solid line indicates individual reported they were 'likely' to apply to university; dotted line indicates individual reported they were 'not likely' to apply to university; absence of line indicates that there was no report from the individual at the most recent wave. Spells of 'likely to apply': arrow tail highlights known start points; arrow head highlights known end points.

DURATION MODELLING

- ▶ Discrete time duration modelling allows us to take account of time to transition and time-varying covariates.
- ▶ Model transitions from 'likely to unlikely' and 'unlikely to likely' separately.
- ▶ Allow inclusion of spells starting at age > 14 and multiple spells from one individual (not in non-parametric modelling).
- ▶ As it relies on self-reported expectations, outcome variable is less well measured than in traditional applications of duration modelling. Not just dependent variable measurement error, also affects who is 'at risk'.
- ▶ Lack of a clear start point for expectations spells. It's not birth, but when do young people seriously start *expecting* to go to university (or not). Psychological literature argue it is around age 14 (Gutman and Akerman, 2008; Gottfredson, 2002), when individuals start to 'compromise' on their aspirations.
- ▶ Very few spells that start at age > 14 ∴ difficult to estimate both age and duration dependence - choose to focus on just age.

SURVIVOR FUNCTIONS BY SES



Notes: Kaplan-Meier estimated survivor function. Weighted using LSYPE Wave 2 weights. Unweighted number of subjects: 6,129 for likely to unlikely and 2,556 for unlikely to likely; weighted number of subjects: 6,009 for likely to unlikely and 2,946 for unlikely to likely. Cox regression-based test for equality of survivor functions rejects the null hypothesis of no difference ($p < 0.01$).

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MULTIPLE REGRESSION MODELS

- ▶ Introduce multiple regression methods to allow inclusion of additional covariates and explore interactions between SES and other covariates (latter not shown here; details available on request).
- ▶ Discrete time analysis using 'easy estimation methods' (Jenkins, 1995). This is implemented using standard binary dependent variable regression model (conditional log-log) applied to a reorganised dataset (one observation for each time point that each individual is 'at risk').
- ▶ Report hazard ratios (exponentiated coefficients from underlying conditional log-log models) relative to middle SES quintile group.

ASSOCIATION BETWEEN SES AND TRANSITION

'Likely to Unlikely'				
Variables	M0	M1	M2	M3
SES Q1 (Low)		1.46***	1.54***	1.13*
SES Q2		1.40***	1.31***	1.17**
SES Q4		0.75***	0.80***	0.80***
SES Q5 (High)		0.33***	0.39***	0.47***
Significance of SES ($P > F $)		0.00	0.00	0.00
N	9,247	9,247	9,247	9,247
Variables	M0	M1	M2	M3
Age	✓	✓	✓	✓
SES Quintile Dummies		✓	✓	✓
Demographics & School			✓	✓
Prior Attainment				✓

Notes: Reporting hazard ratios. $P > |F|$ shows p-value for test of joint significance difference from 1 of SES group dummies in the underlying regression models. Adjusted using LSYPE Wave 2 respondent weights.

'Unlikely to Likely'				
Variables	M0	M1	M2	M3
SES Q1 (Low)		0.76***	0.70***	0.79***
SES Q2		0.89*	0.88*	0.91**
SES Q4		1.29***	1.25***	1.16**
SES Q5 (High)		1.94***	1.92***	1.71***
Significance of SES ($P > F $)		0.00	0.00	0.00
N	5,330	5,330	5,330	5,330
Variables	M0	M1	M2	M3
Age	✓	✓	✓	✓
SES Quintile Dummies		✓	✓	✓
Demographics & School			✓	✓
Prior Attainment				✓

Notes: Reporting hazard ratios. $P > |F|$ shows p-value for test of joint significance difference from 1 of SES group dummies in the underlying regression models. Adjusted using LSYPE Wave 2 respondent weights.

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