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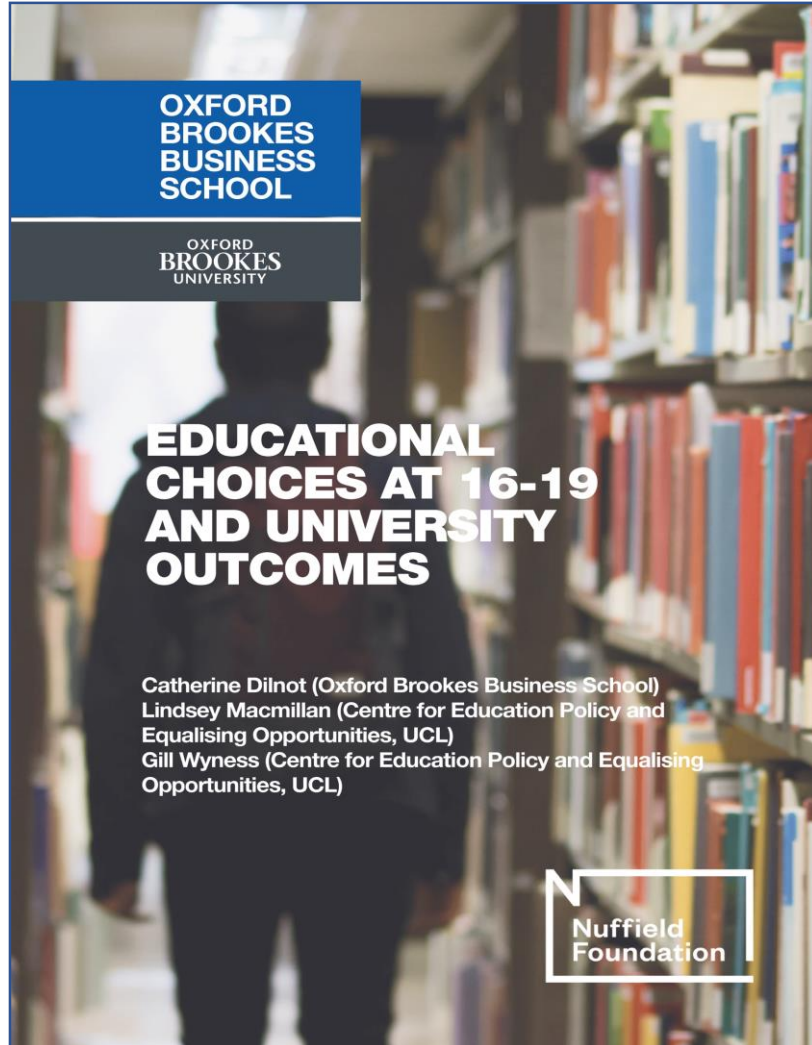
Educational Choices at 16-19 and Adverse Outcomes at University

NEON Working Group

Supporting Access, Success and Progression of
Vocational Learners

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Background to our research report



Motivated originally by:
Literature on university outcome gaps by **L3 qualification type** and **SES**

Facilitated by:

Availability of linked data for students back to both L2 and L3

Then:

Government L3 Reform proposals

Outline of session

- Why do we care about non A-level routes to university?
- BTECs and university outcomes
- Where do we go from here?

Why might we want non A-level routes into HE?

- Why is related to 'who'
- Widening participation (Gicheva & Petrie, 2018; Atherton, 2021)

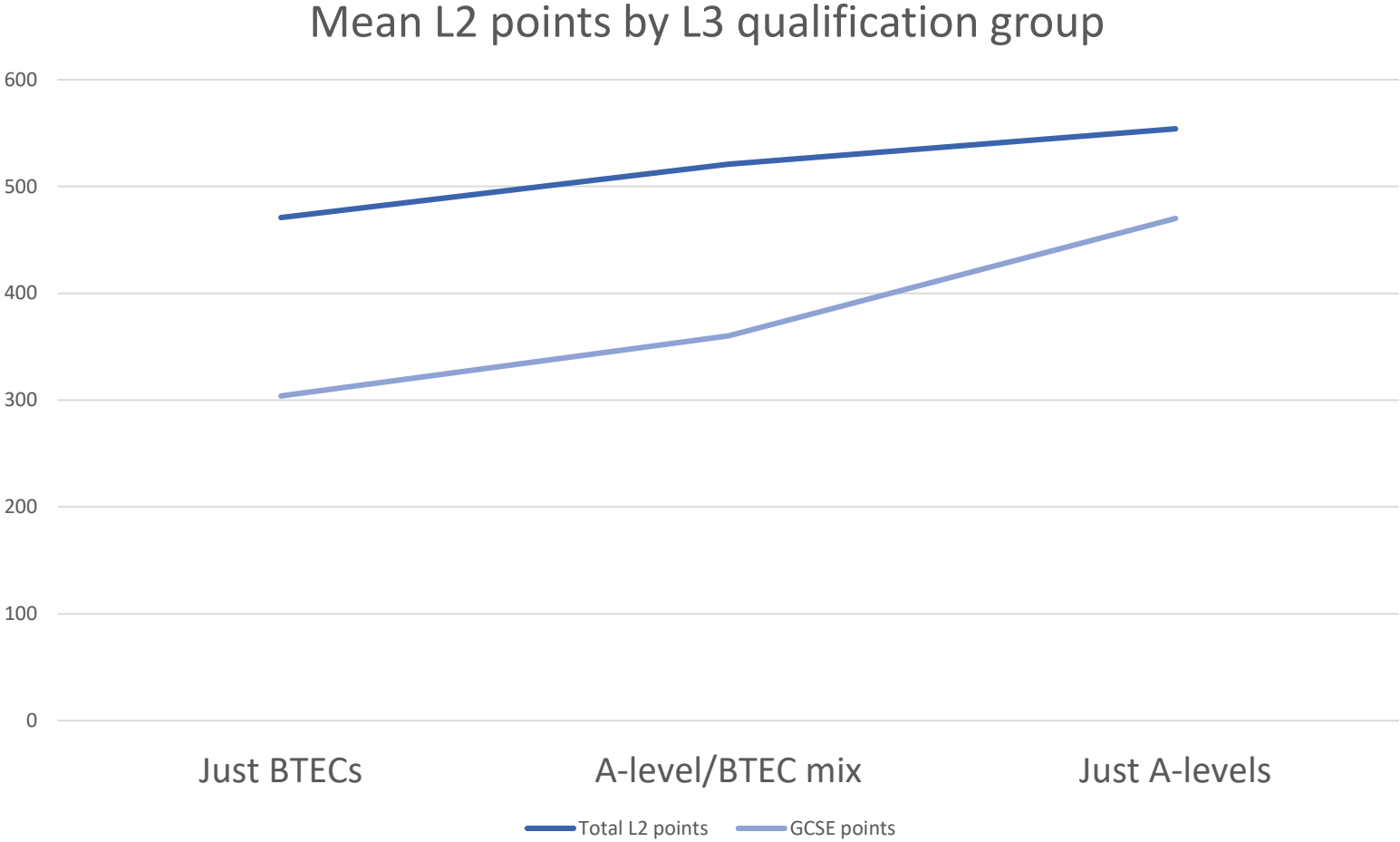
	Just BTEC entrants	A-level/BTEC mix	Just A-level entrants
Mean SES quintile	2.5	2.7	3.5
Non-White	35%	30%	24%
Male	51%	44%	43%
Number	115,850	54,530	518,710

Source: Linked NPD HESA data for 3 first year cohorts to 16/17 – young English full-time entrants to UK HEIs

Has admitting students with BTECs widened participation?

- Significant increase in HE entrants with BTECs or BTEC/A-level combinations compared with A-levels in last decade or so (ratios of 18 year old entrants)
 - 2008 1:7
 - 2021 1:3
- During this period not much increase in proportion of 18 year old cohort entering with A-levels
- So BTECs credited with progress in widening participation over past years (Kelly, 2017; Atherton, 2021)

Different academic profiles, on average..



Are outcomes for similar students the same whether they've entered with BTECs or A-levels....

- **Dropout**
- **Repetition**
- **Graduating below 2:1**

...if we take into account their different academic profiles and other characteristics?

Research questions

- Are students entering with BTECs at higher risk of adverse outcomes than those with A-levels?
- What about those with a mixture of A-levels and BTECs?
- Does size (of BTEC) make a difference?

Data for analysis

- Linked NPD HESA ILR (via ONS SRS) – 3 cohorts of joiners to 14/15-16/17 and 3 cohorts of leavers 15/16-17/18
- Individual university data including module scores (unlinkable to NPD/ILR) – 7 HEIs

	Linked	Individual Uni
English domiciled young full-time first years	743,900	31,011
English domiciled young full-time graduating students	614,580	28,483

ONS SRS Disclaimer

"This work was produced using statistical data from ONS. The use of the ONS statistical data in this work does not imply the endorsement of the ONS in relation to the interpretation or analysis of the statistical data. This work uses research datasets which may not exactly reproduce National Statistics aggregates."

Methods – comparing ‘average’ students with BTECs and A-levels

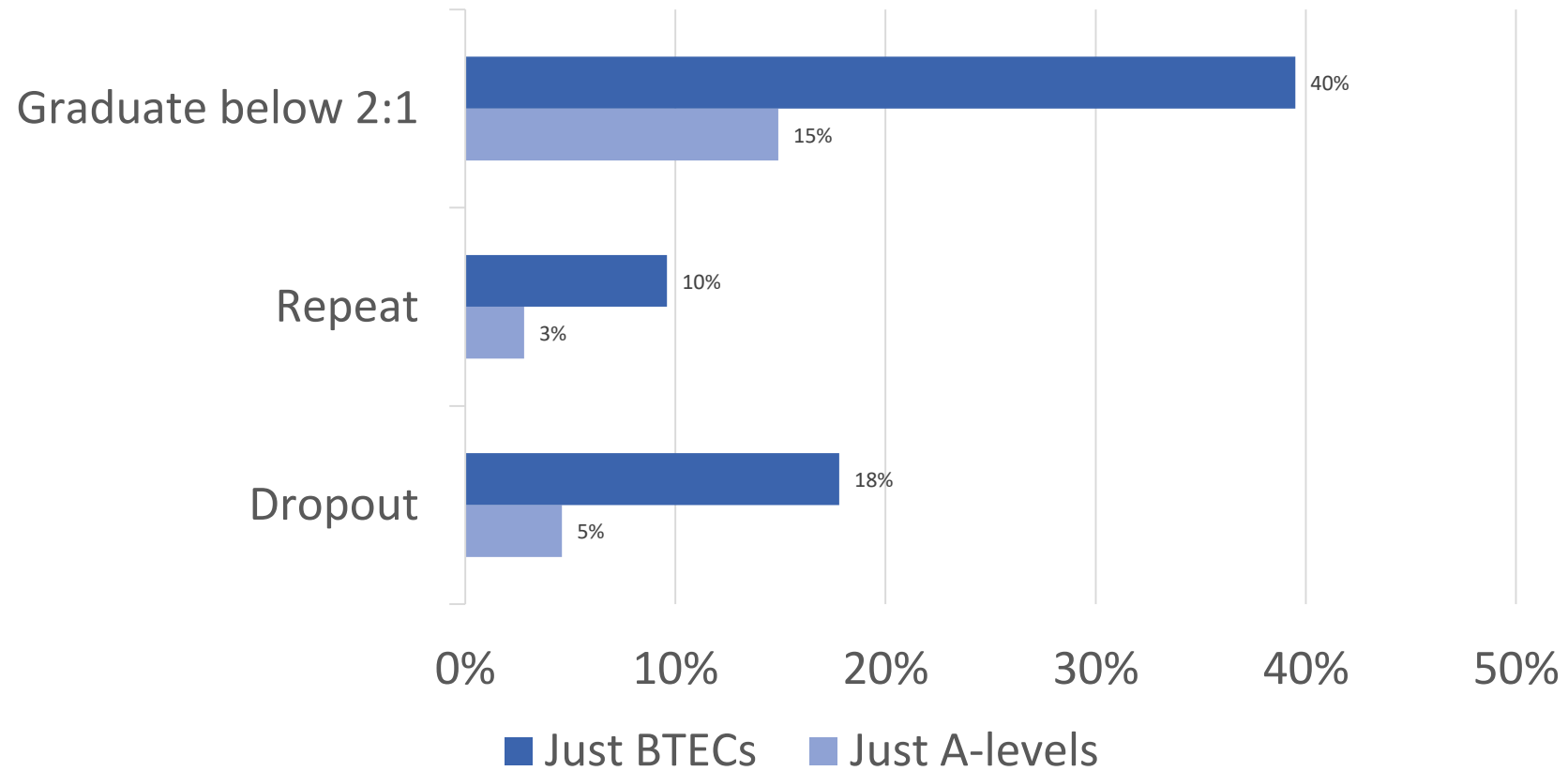
- What’s the difference in chances of each outcome?
- Comparing students with the same....
 - SES
 - Attainment at 16
 - Demographics
- Takes into account ‘context’ - university and degree subject

Caution.....

Correlation \neq Causation

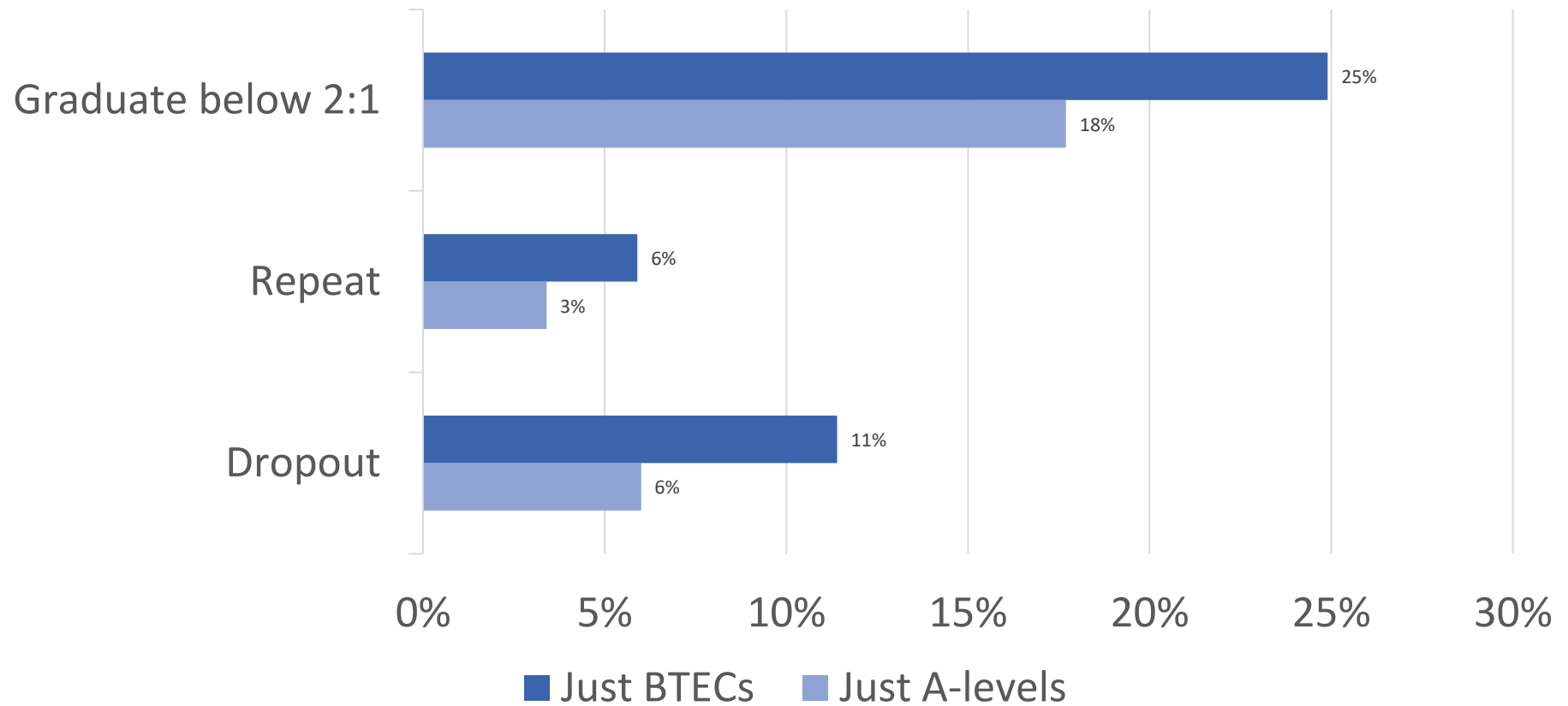
- We quantify **relationships** between qualifications and outcomes
- We can't argue that the qualifications **cause** the outcomes..
-because there may be factors which effect both whether a student has a particular qualification/subject and the chances of one of these outcomes happening that we can't measure
- **But** our rich set of controls helps

Differences between BTEC and A-level students: raw outcomes



Results – gaps reduced but not eliminated

Modelled predicted chance of outcome for an 'average' student with just BTECs compared with just A-levels



Drilling down further into BTECs

Gap between A-level only and..	..BTEC/A-level mixture	..BTEC only
Grad below 2:1	3.4pp	7.2pp
Repeats	1.0pp	2.5pp
Dropout	1.7pp	5.4pp

Does size of BTEC make a difference (amongst those doing just BTECs)?

- Dropout – entrants with ‘large’ (size 12) BTEC slightly more likely to drop out than those with same ‘size’ in total but made of up smaller BTECs – 0.7pp
- No significant difference for repetition or graduation

Clues as to why the gaps remain from 'individual university' data including module scores?

- Module scores account for remaining gap in dropout
- For one post 92 university for which we have assessment method data, BTEC students do worse on exam assessments than coursework assessments on average – not found for A-level students

Summary of differences in modelled gaps across all the qualifications in the full sample

Outcome gap compared with A-level only group 518,710 FY, 460,245 grads	BTEC/A-level mix 54,530 FY, 35,935 grads	BTEC only 115,850 FY, 71,420 grads	Other academic 8,355 FY, 6,860 grads	Access 1,685 FY, 2,360 grads	Other L3 43,260 FY, 36,345 grads
Grad below 2:1	3.4pp***	7.2pp***	1.4pp*	2.7pp***	4.8pp***
Repeats	1.0pp***	2.5pp***	0.7pp**	2.7pp***	1.4pp***
Dropout	1.7pp***	5.4pp***	1.0pp**	3.8pp***	3.3pp***

*** p<0.001, ** p<0.01, * p<0.05

Can we conclude that BTECs are less good preparation for university study than A-levels?

Is it that the relationship is ‘causal’?

- The BTEC qualifications themselves (subject content? assessment methods?) are less good preparation for university studies than A-levels, on average

Or are the gaps caused by other things that we can’t observe in our data

- Institutional differences at L3 between those doing BTECs and A-levels (per capita spending? nature of academic support?)
- How students choose (or are told to do?) BTECs or A-levels by mechanisms other than their L2 attainment
- Individual differences - eg academic confidence?

What's to be done?

Defunding BTECs entirely – not happening

- Back to causation point – it may not be the BTECs themselves
- Cuts off route to success for many students from WP backgrounds
- Would they do A-levels instead?
- Would they do T-levels instead? Will T-levels have same problem?

Better alignment of content/assessment from BTECs to HE

- More partnership working
- Reformed BTECs might make a difference?

Use data better at university

- To monitor differences by qualification type
- To inform tutors
- To identify at risk students

Future work needed....

- Do outcomes change for those with reformed BTECs?
- What are outcomes like for those entering with T-levels?
- What happens to current 'BTEC type' students aspiring to HE – will they do A-levels?

Questions?