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**DEBATE
DISCOVER
DISCUSS**

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**What is a degree worth?
Estimating the returns
to undergraduate and
postgraduate degrees**

Laura van der Erve (IFS)

Imran Tahir (IFS)

Ben Waltmann (IFS)





Jack Britton, IFS
Lorraine Dearden, IFS and UCL
Laura van der Erve, IFS
Ben Waltmann, IFS

12 November 2020

@TheIFS

The impact of undergraduate degrees on lifetime earnings



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Context of this research

- 3rd in a series of reports on the impact of degrees on earnings
- Based on the LEO data (linked school, university and tax records)
- 2nd report: The impact of undergraduate degrees on **pre-tax earnings at age 29** is
 - 26% for women
 - only 6% for men
- **For women**, all subjects have positive returns on average
- **For men**, studying creative arts, English or philosophy has **negative returns at age 29**.



University leaves men in some subjects 'worse off' than peers without degrees

University leaves men in some subjects 'worse off' than peers without degrees

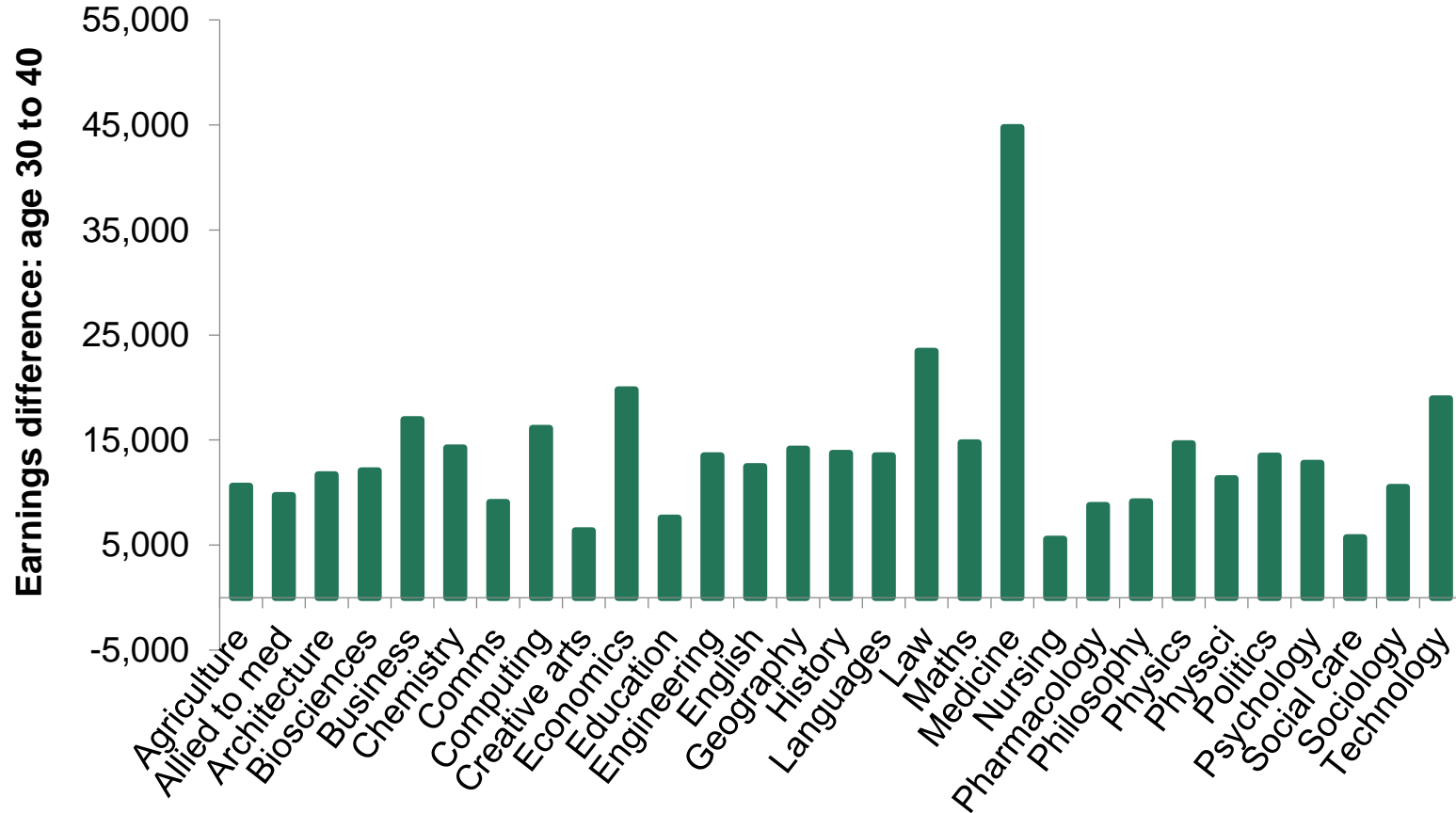
The Independent, November 2018



**But this is only at age 29.
What happens later in life?**

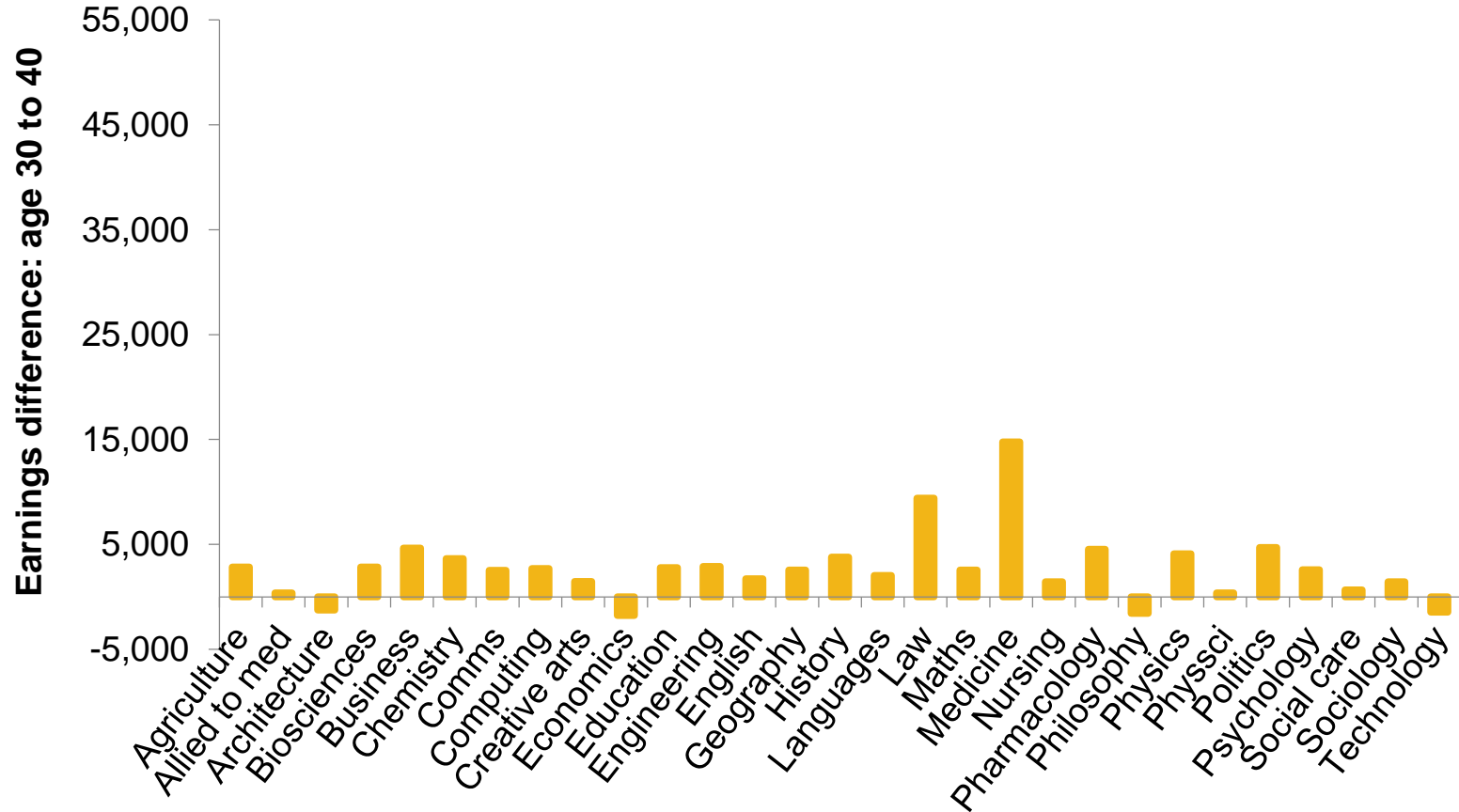
Earnings difference: age 30 to 40

Men



Earnings difference: age 30 to 40

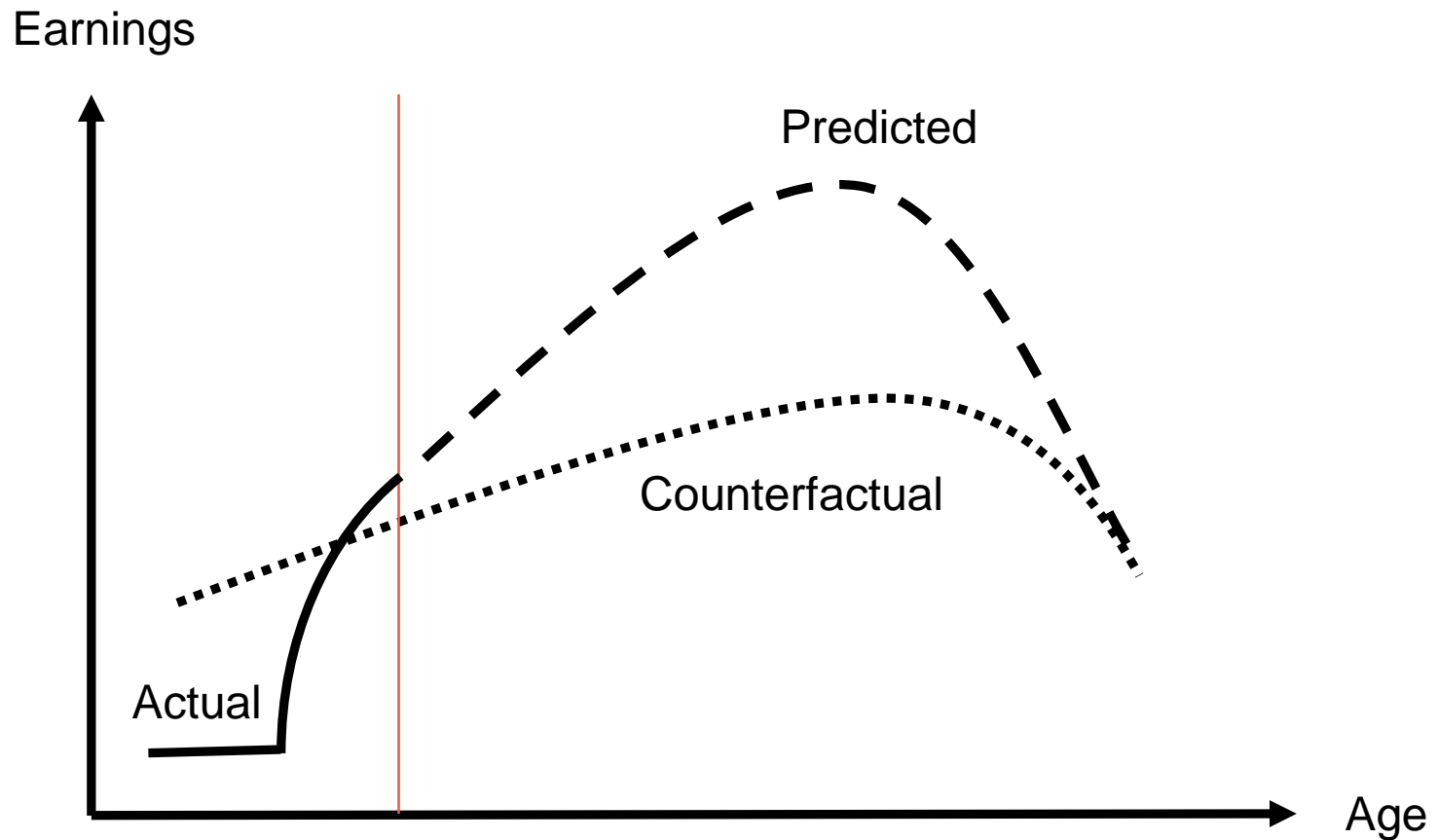
Women





**Unfortunately *complete*
LEO data is only available
until age 30.**

Methodology in one picture



But that's not the full picture

Also need to account for:

- Taxes and National Insurance
- Student loan repayments
- **The lower value of future earnings compared to current earnings**
 - £1 today is worth much more than £1 in 30 years' time, because you could invest today's Pound and earn a *return*.
 - Value in 30 years time depends on how much you *discount* future earnings
 - We use 3.5% real discount rate for 30 years, 3% thereafter

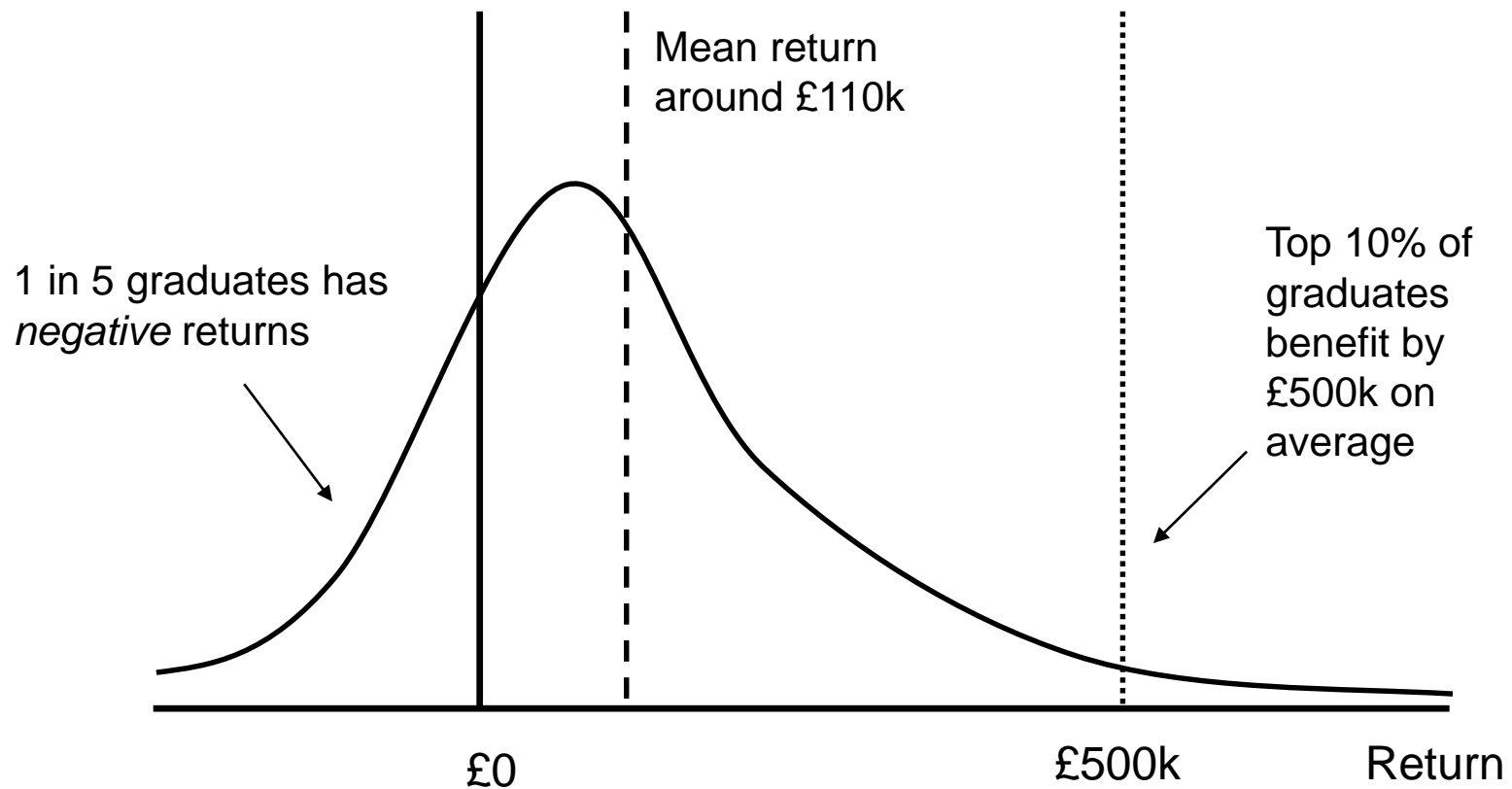


**So is going to university
worth it?**

Private returns to university

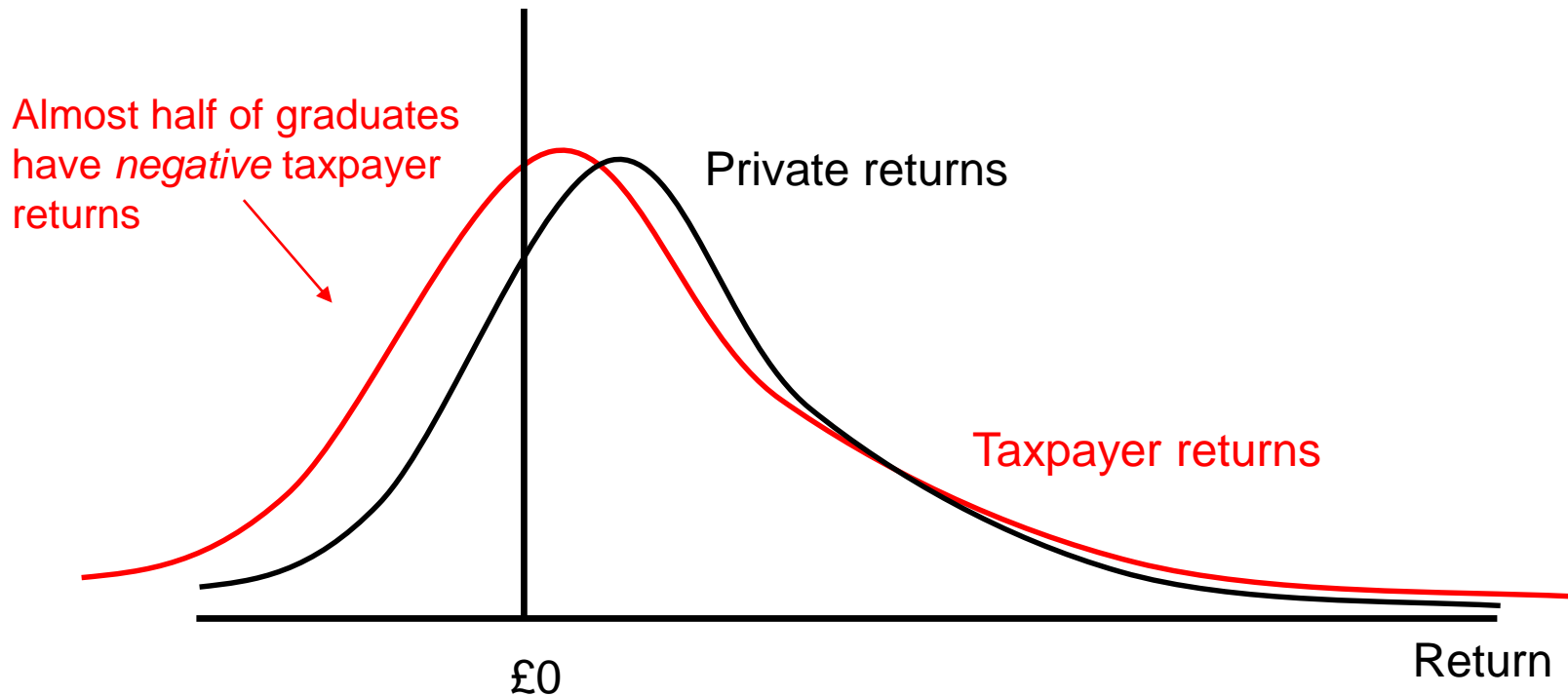
	Men	Women
Main estimates	£130k	£100k
No discounting	£350k	£230k

Significant variation in returns

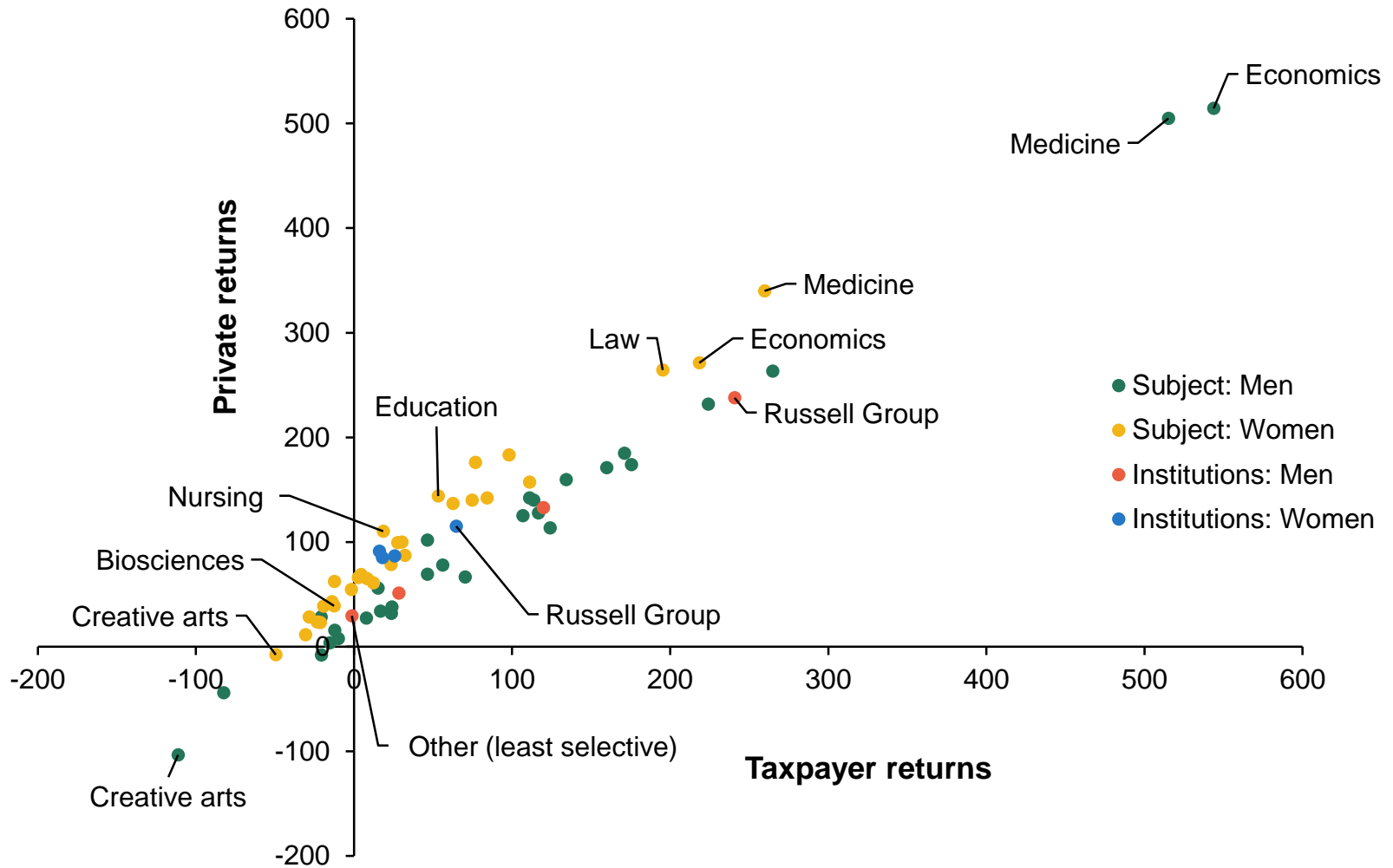


Is it worth it for the taxpayer?

	Men	Women
Taxpayer returns	£110k	£30k



Variation by subject and institution



The Institute for Fiscal Studies
7 Ridgmount Street
London
WC1E 7AE

www.ifs.org.uk





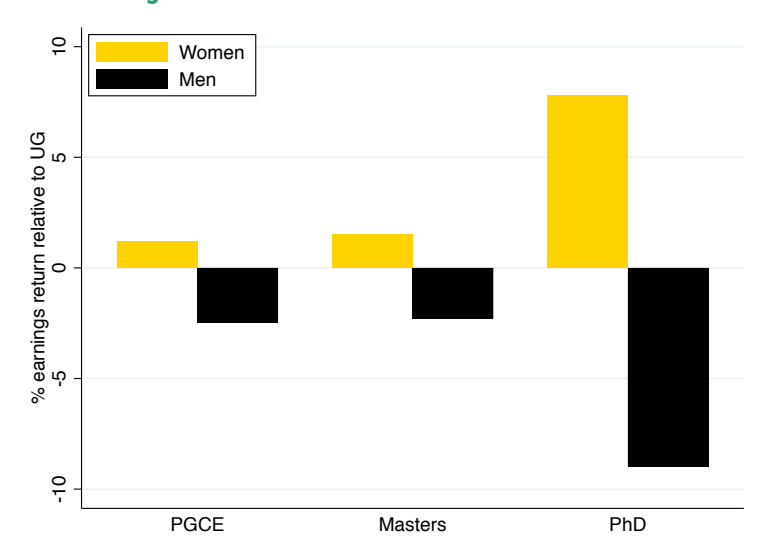
Laura van der Erve
ESRC Festival of Social Science
November 2020

Labour market returns to postgraduate degrees: Evidence from the UK

- ▶ Huge expansion of postgraduate degrees
 - ▶ Nearly 400k students now start postgraduate courses each year in UK
- ▶ Use new linked UK admin data to provide evidence on earnings impact of PG quals, relative to UG only, at age 35
- ▶ We show this for:
 - ▶ PGCE, master's, PhD
 - ▶ Variation by **subject** and **prior UG degree**

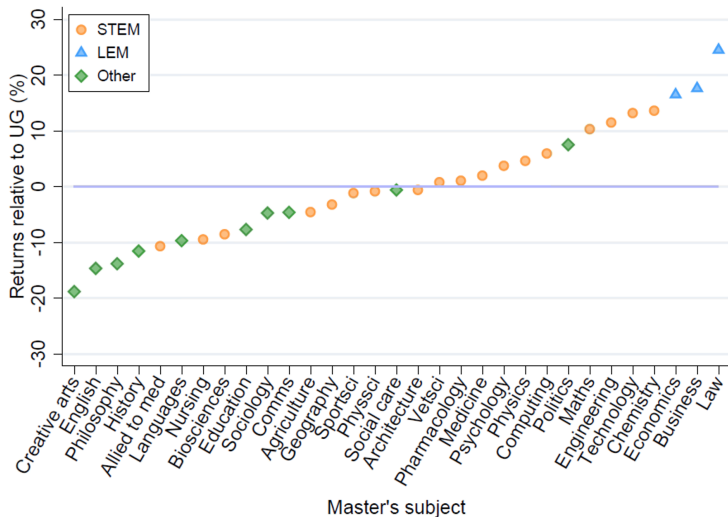
- ▶ Postgraduates differ from undergraduates in terms of background and prior attainment
 - ▶ More likely to have obtained a First or to have attended Russell Group universities
- ▶ Would likely have higher earnings even if did not do postgraduate qualification
- ▶ Adjust for this using a regression model
- ▶ Compare earnings of individuals who did and did not do a postgraduate qualification, but have the **same background** and **same prior attainment**

Overall returns at age 35

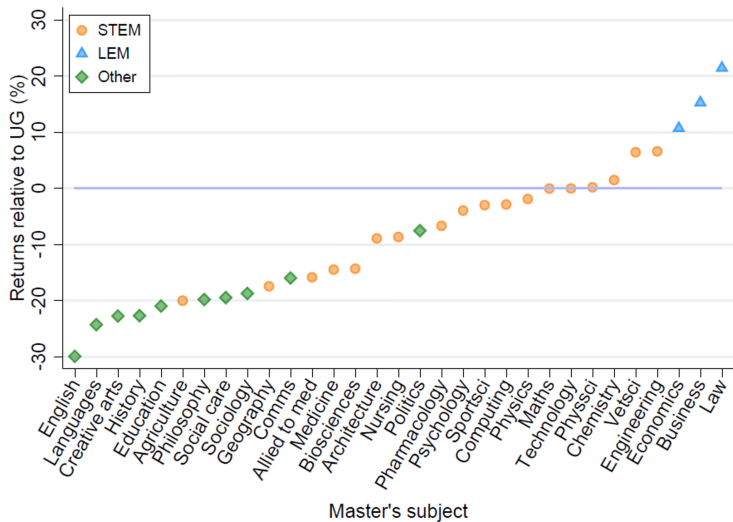


- ▶ Postgraduate courses don't seem to increase **average** earnings for men, and PGCEs and Masters only marginally increase women's earnings
- ▶ Seems to provide insurance against bad labour market outcomes, even if doesn't lead to very high earnings
- ▶ Individuals with PG degrees are considerably **more** likely to earn £30k or more, but **less** likely to earn more than £50k

Master's returns by subject - women



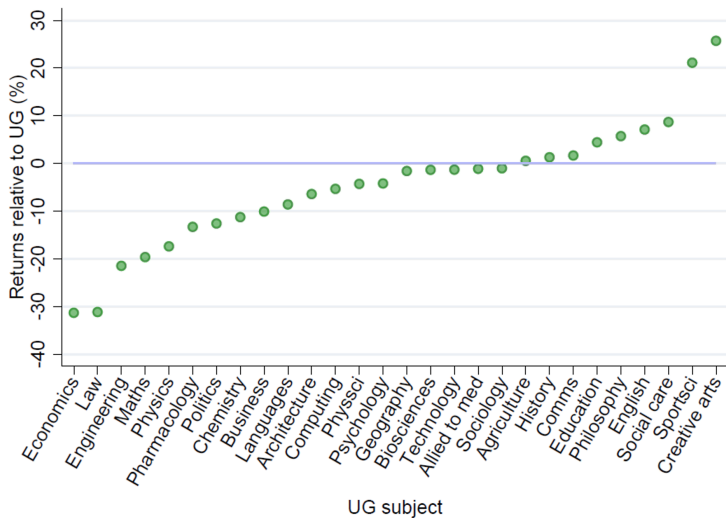
Master's returns by subject - men



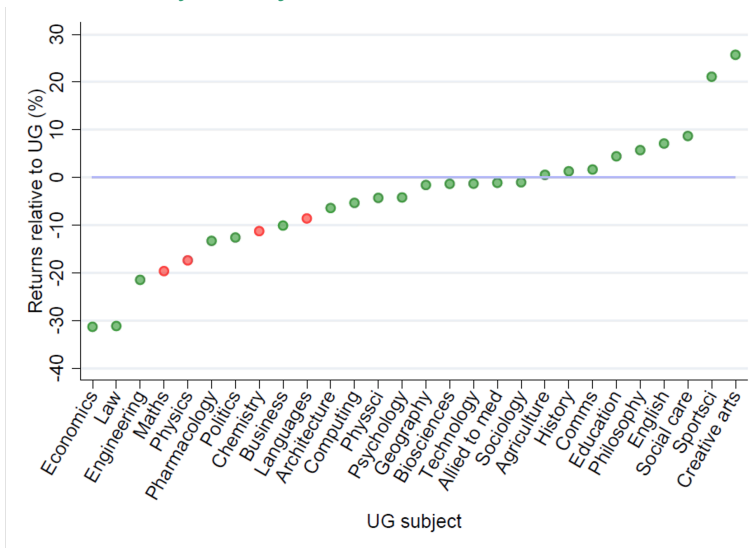
- ▶ Returns might depend on what you have done previously (and hence what your outside options are)

- ▶ Particularly relevant in case of PGCEs, where students come from wide range of undergraduate courses

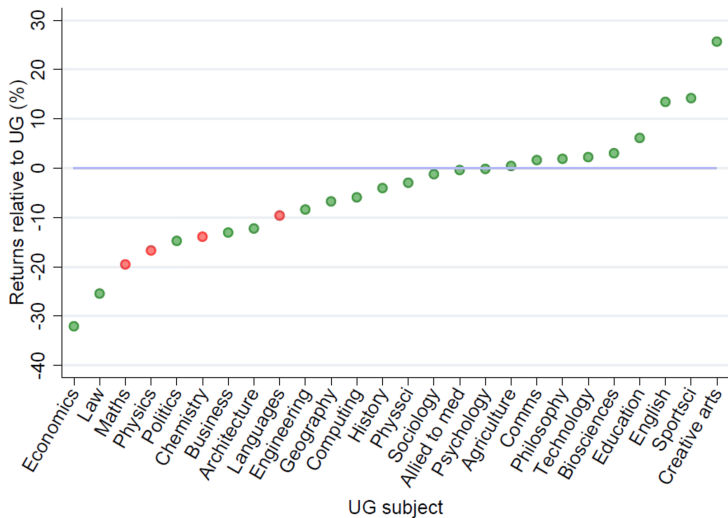
PGCE returns by UG subject - women



PGCE returns by UG subject - women



PGCE returns by UG subject - men



- ▶ Low earnings returns to masters and PGCEs, larger positive (negative) returns to PhDs for women (men)
- ▶ Postgraduate qualifications seem to provide insurance against bad labour market outcomes
- ▶ Returns vary widely depending on subject studied for masters
- ▶ Low earnings returns to PGCEs for graduates of “priority” subjects may explain teacher shortages
- ▶ Obviously many other important benefits to postgraduate qualifications!



Hector Espinoza, CVER
Stefan Speckesser, CVER
Imran Tahir, IFS
Jack Britton, IFS
Sandra McNally, CVER
Anna Vignoles, University of Cambridge

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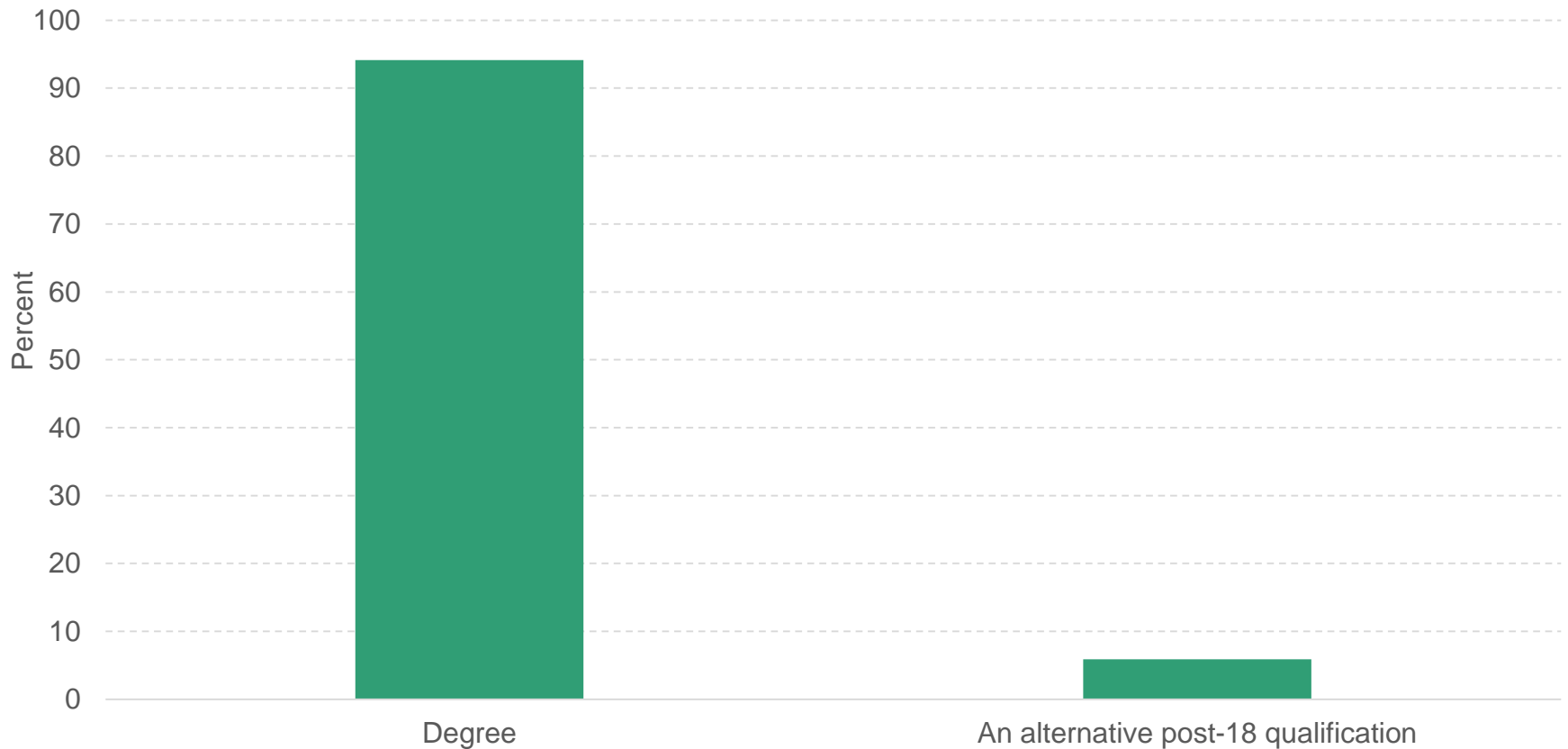
Post-18 Education: Who is taking different routes and how much do they earn?



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Degrees are by far the most common post-18 qualification

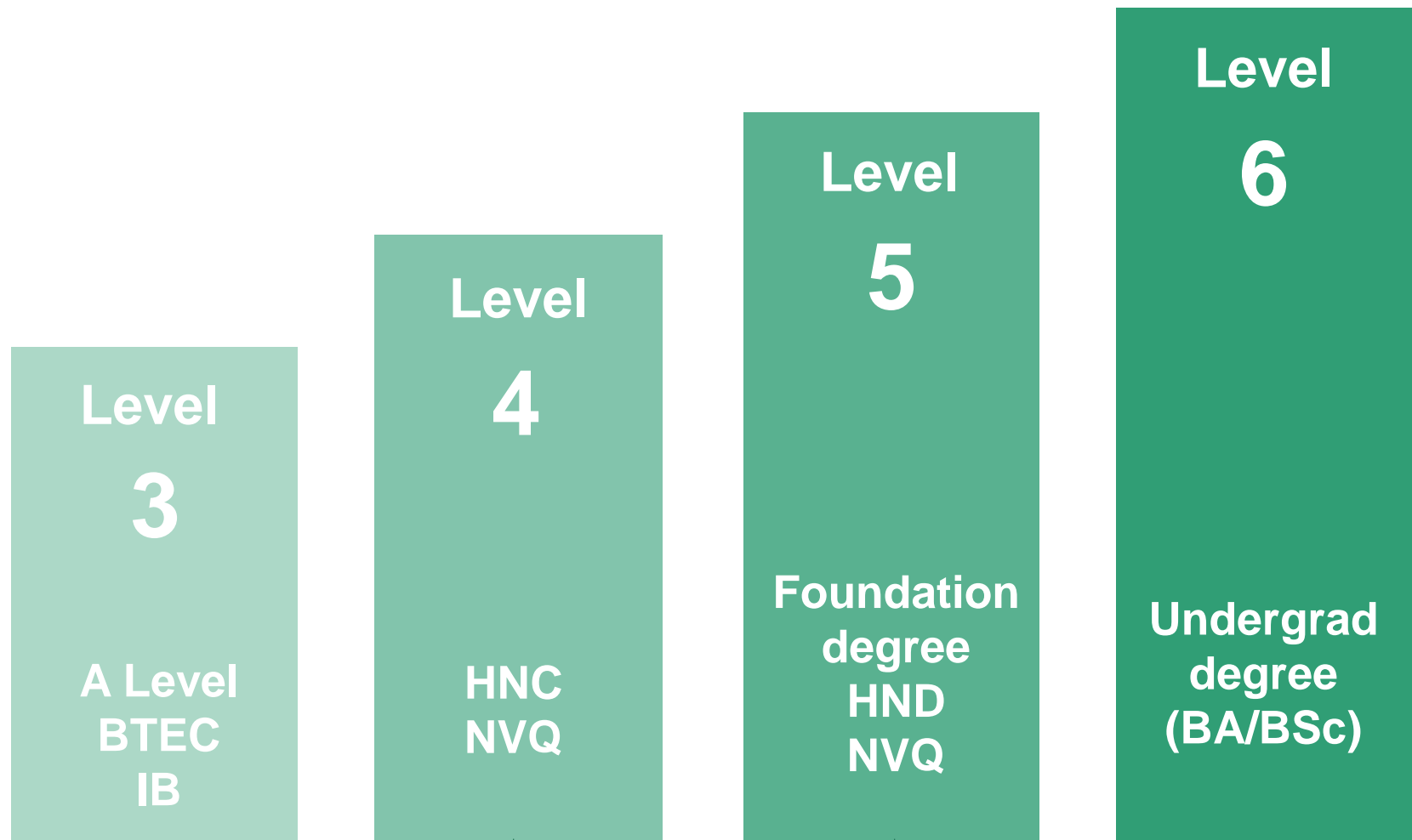
Highest completed post-18 qualification by age 25



The alternatives to a degree

- A small share of people take ‘alternative’ post-18 qualifications
- We look at the education decisions of the 2002-2006 GCSE cohort to provide evidence on two questions:
 1. How do people in different post-18 routes compare?
 2. How do the returns to alternative post-18 qualifications compare to degrees?

Post-18 qualification levels



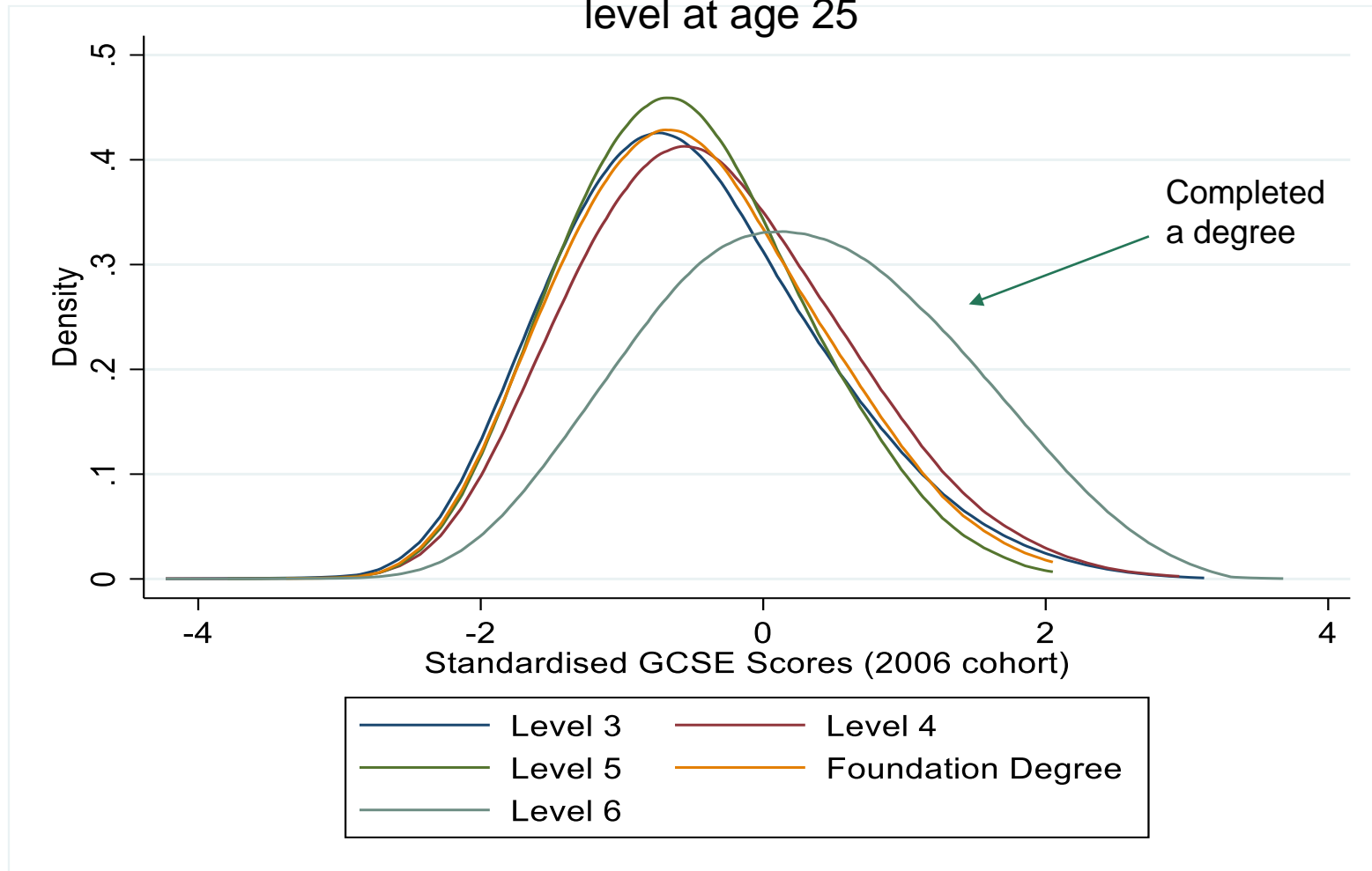
Alternative post-18 qualifications

The missing middle of post-18 qualifications

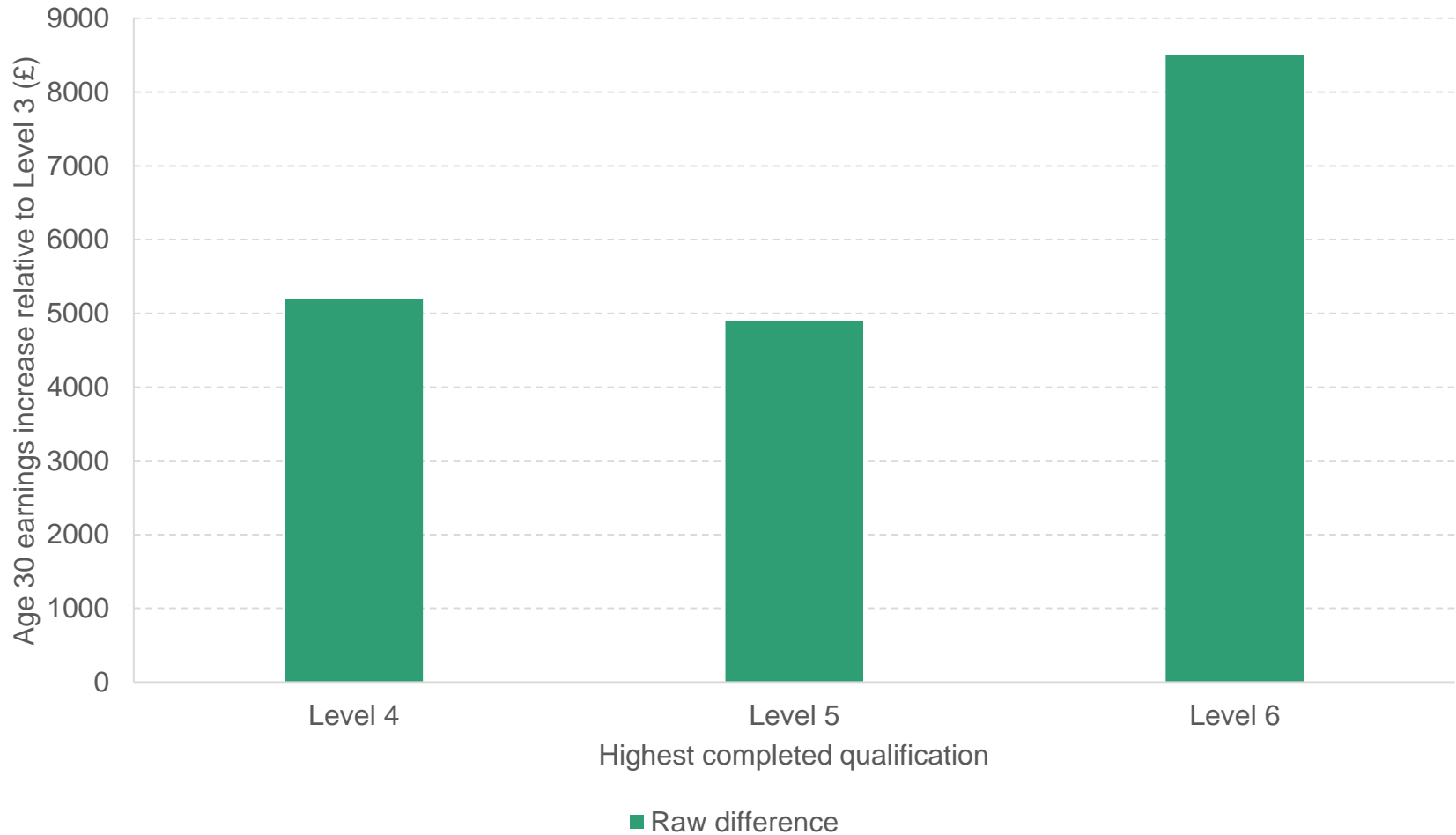


Degree students have higher levels of prior attainment

The density of GCSE attainment by highest education level at age 25

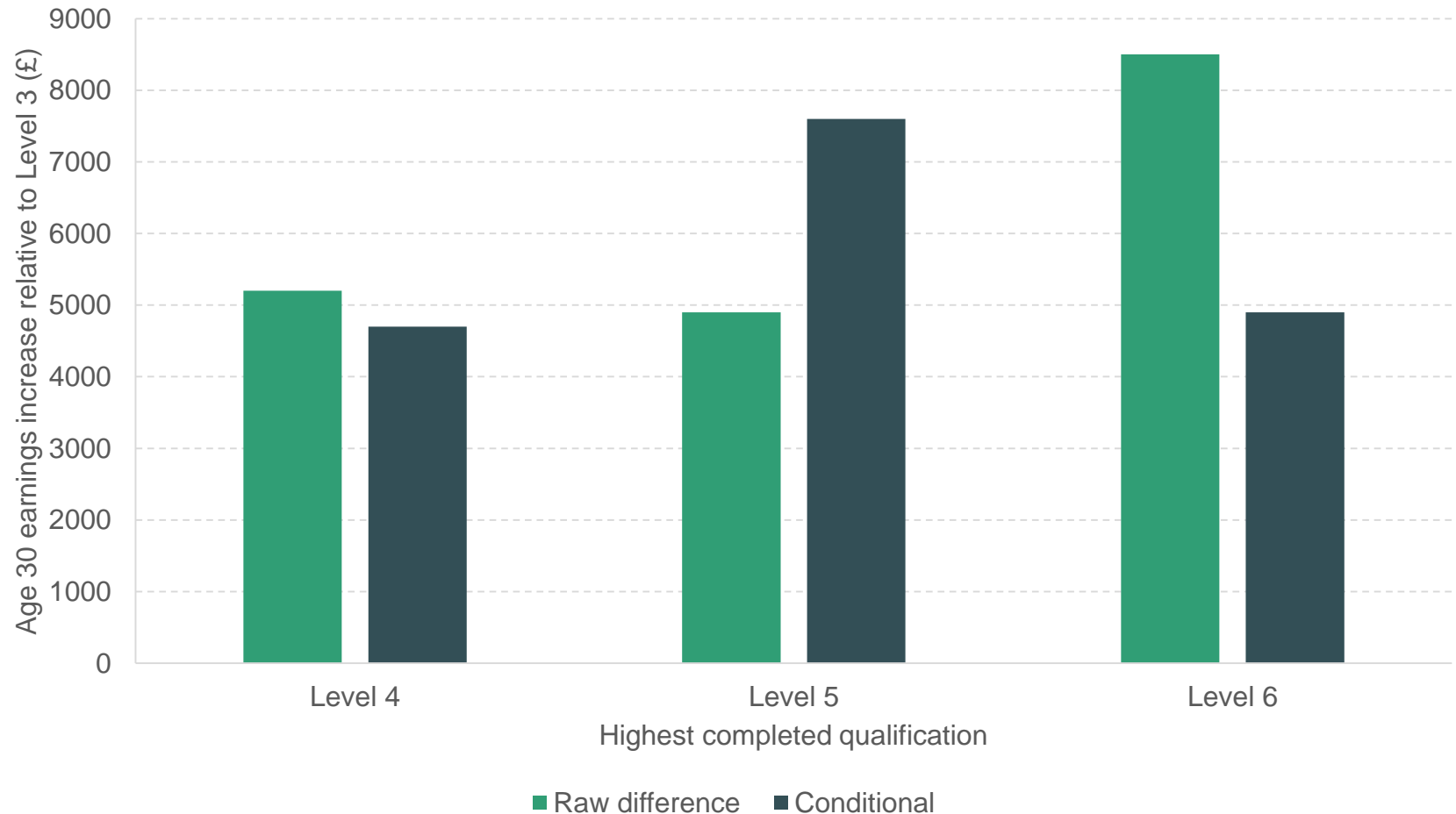


Women's earnings at age 30



Level 3 average earnings (for women) is £19,600

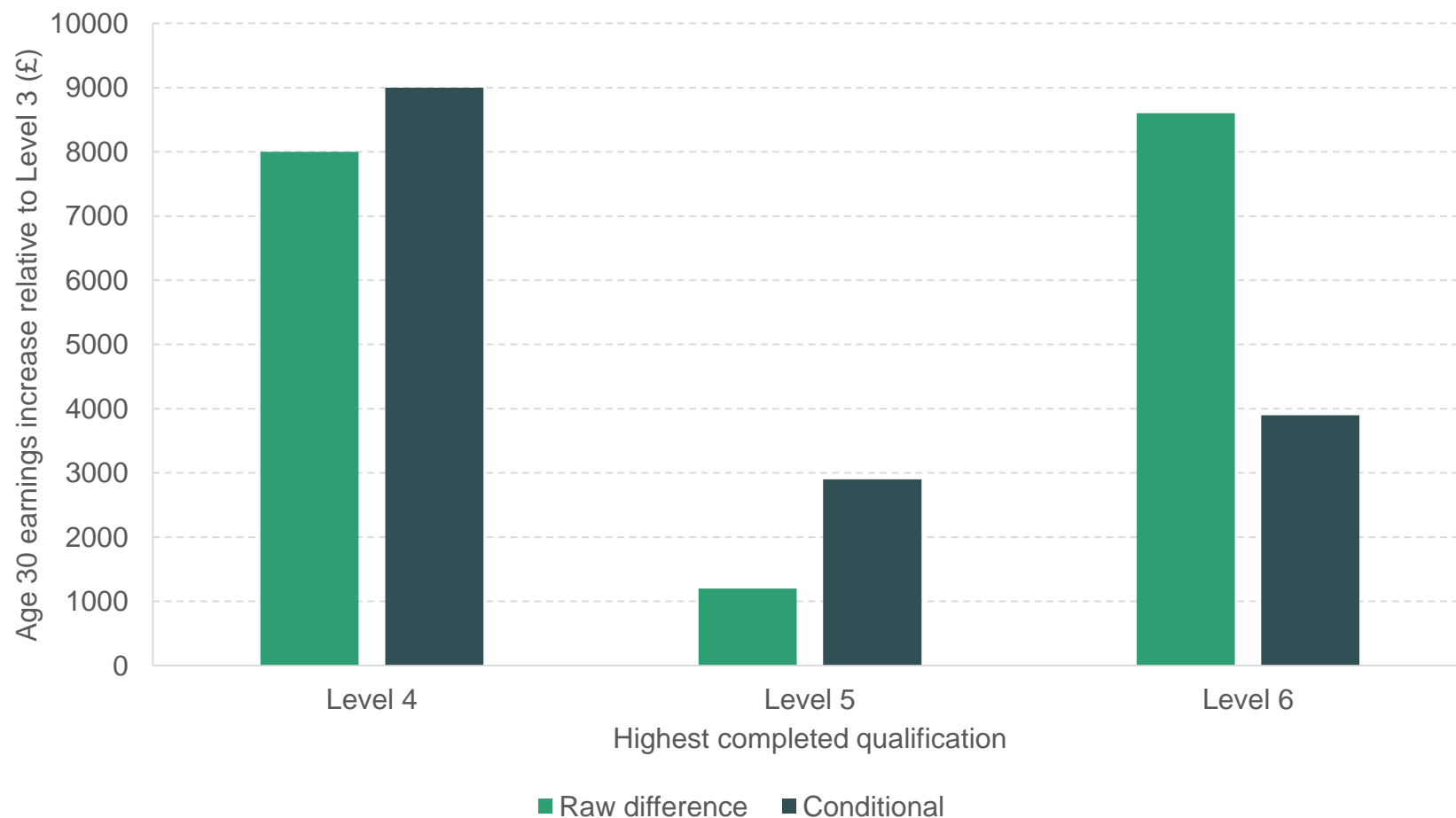
Women's returns at age 30



Level 3 average earnings (for women) is £19,600

Conditional estimates account for differences in prior attainment, background characteristics (e.g. free school meal eligibility) and cohort effects

Men's returns at age 30



Level 3 average earnings (for men) is £28,000

Conditional estimates account for differences in prior attainment, background characteristics (e.g. free school meal eligibility) and cohort effects

Are there better options than a degree?

- Once we account for background characteristics and prior attainment, Level 6 (degrees) does not offer the highest returns
- However, there are a number of caveats:
 - We are looking at earnings averaged across all subjects
 - High earnings for alternative post-18 qualifications seem to be driven by Engineering at Level 4 and Nursing at Level 5
 - We are considering earnings at a relatively young age
- What is clear is that a range of post-18 qualifications (not only degrees) can boost earnings relative to stopping at secondary-level education

The Institute for Fiscal Studies
7 Ridgmount Street
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WC1E 7AE

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It is common to combine alternate post-18 qualifications with a degree

The share of individuals who have completed a degree and another post-18 qualification by the age of 25

