Returns to Higher Education using admin data:
Report summary

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Project background

- It is well known that the average graduate earns more than non-graduates, but less is known about the impact of different degree subjects and institutions on graduates' earnings.

- We use new dataset of school, university and tax records created by the Department for Education to investigate returns to different degree courses.

- We examine the raw differences in earnings and the returns to degrees holding prior attainment, socio economic background, region and ethnicity fixed.

- These results focus on earnings five years after graduation for those in sustained employment. We use PAYE earnings, include HE dropouts and look at cohorts graduating university between 2008 and 2012.
There is wide variation in earnings by subject studied...

Subject average earnings five years after graduation for women

Real earnings (£s, 2017 prices, excl zeros)

Social care
Creative arts
Agriculture
Comms
Psychology
Sociology
Sportsci
Education
Physsci
English
Nursing
Computing
Philosophy
Biosciences
History
Allied to med
Law
Architecture
Business
Geography
Languages
Politics
Vetsci
Engineering
Pharmacology
Physics
Maths
Economics
Medicine

Medics earn £42300 on average
Creative artists earn £21000 on average
There is wide variation in earnings by subject studied...

Subject average earnings five years after graduation for men

- Medics earn £44900 on average
- Creative artists earn £22200 on average
...and lots of variation in earnings across institutions

Institution average earnings five years after graduation for women

Russell Group students earn £29800 on average
Post 1992 uni students earn £22900 on average
...and lots of variation in earnings across institutions

Institution average earnings five years after graduation for men

- **Russell Group**
- **Pre-1992 unis**
- **Post-1992 unis**
- **Other unis**

**Russell Group students earn £36100 on average**

**Post 1992 uni students earn £26200 on average**
But there are also huge earnings differences by GCSE maths grade...

Female earnings by GCSE maths grade

<table>
<thead>
<tr>
<th>Grade</th>
<th>Years after graduation</th>
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<tr>
<td>A*</td>
<td>7</td>
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<tr>
<td>A</td>
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Real earnings (£s, 2017 prices, excl zeros)

- £40600
- £33000
- £22000
But there are also huge earnings differences by GCSE maths grade.
Female earnings by SES

Real earnings (£s, 2017 prices, excl zeros)

Years after graduation

Independent school
Top quintile
Q2
Q3
Q4
Bottom quintile

£35800
£30100
£24500

Belfield et al. (IFS)
HE returns using admin data
May 2018
...and by SES background

Male earnings by SES

- Independent school
- Top quintile
- Q2
- Q3
- Q4
- Bottom quintile

Real earnings (£s, 2017 prices, excl zeros)

Years after graduation

Belfield et al. (IFS) HE returns using admin data May 2018
Important question

- Do people who go to the top universities and high-earning subjects earn more just because they have higher prior attainment and come from better-off backgrounds?

- Or are the differences a result of the direct impact of the university course itself?

- In what follows, we remove the effect of these observable differences between individuals and show the earnings returns to studying different subjects and at different institutions compared to the average degree.
Significant differences in returns by subject remain. Medicine degrees have returns 31% higher than the average degree holding background characteristics fixed. Languages have high raw earnings, but below average returns controlling for background characteristics.

Subject returns five years after graduation for women

Medicine degrees have return 31% higher than the average degree holding background characteristics fixed.

Languages have high raw earnings, but below average returns controlling for background characteristics.
Significant differences in returns by subject remain.

Creative arts degrees have a return 18% less than the average degree holding background characteristics fixed.

Computer Science is the fourth returing subject, despite being ranked 14th in terms of raw earnings.

Creative arts degrees have a return 18% less than the average degree holding background characteristics fixed.
Russell Group universities have the highest returns

A degree from a Russell Group university has a return 10% above the average

Post 1992 universities have very close to average returns

% returns relative to the average degree

HEIs ranked on returns

95% CI

-60 -40 -20 0 20 40 60

-60 -40 -20 0 20 40 60

1 50 100

Institution returns five years after graduation for women

Russell Group
Pre-1992 unis
Post-1992 unis
Other unis

Belfield et al. (IFS)
HE returns using admin data
May 2018
Russell Group universities have the highest returns

A degree from a Russell Group university has a return 13% above the average

Post 1992 universities have very close to average returns

95% CI
- Russell Group
- Pre-1992 unis
- Post-1992 unis
- Other unis
Wide range in returns across unis even within subject

Course returns five years after graduation for women

Highest return university for subject

50% of universities fall in this range

Lowest return university for subject

Top economics course has return of 120% above the average degree while the lowest returning course is below average.
Wide range in returns across unis even within subject

Course returns five years after graduation for men

Highest return university for subject

Lowest return university for subject

50% of universities fall in this range

Medicine is the only subject with above average returns at all institutions

% returns relative to the average degree

Creative arts
English
Comms
Psychology
Technology
History
Sociology
Philosophy
Sportsci
Languages
Physsci
Biosciences
Agriculture
Geography
Politics
Education
Allied to med
Engineering
Physics
Architecture
Pharmacology
Business
Computing
Maths
Economics
Medicine

Belfield et al. (IFS)
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Conclusions

- Characteristics determined before students begin HE are important for future earnings, but even after accounting for these characteristics different subjects and institutions have significantly different impacts on the earnings of their students.

- Medicine, economics and business are amongst the highest returning courses, with creative arts, philosophy and English amongst the lowest returning courses.

- Even after accounting for the fact they take students with the highest prior attainment, Russell Group universities still have the highest returns.

- Choosing a ‘high-return’ subject is not enough to guarantee high earnings. There is a wide variation in returns to studying the same subject at different institutions.

- These results focus solely on the earnings returns to different degrees and there are clearly many other important outcomes which factor into students’ HE decisions and the evaluation of universities.