Measuring the Demographic Attainment Gap for Economics Undergraduates

Parama Chaudhury, Hannah Buttle, Otso Hao and Samuel Asher
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Motivation

Universities to tackle ‘pressing problem’ of BAME students being less likely to qualify with top degrees

"Too many students from black and minority ethnic backgrounds have a challenging experience"

Eleanor Budby  Education Correspondent
Wednesday 6 June 2018 00:51

The changing face of economics

Mariana Cook's portraits of economists chart a field that is evolving, but slowly, says Tim Harford
What are we discussing today?

Questions to answer:
• How do grades vary by gender and ethnicity?
• What does the economics classroom look like?
• What does this imply for policy?

Data:
• Individual data on (UK-domicile) student characteristics and grades
• From a single academically selective university (2015-2019)

Notes:
• BAME = Black, Asian and Minority Ethnic
• In the UK, when students apply to university, they choose a particular subject e.g. Economics
How do marks vary by ethnicity and gender?

Proportion Awarded 1st class degree by Gender

- BASc
- CivEng
- Econ
- Laws
- Maths
- MechEng
- Med
- Stats

Male | Female
--- | ---
Basc | CivEng | Econ | Laws | Maths | MechEng | Med | Stats

Percentage values are not provided in the image.
How do marks vary by ethnicity and gender?

Proportion Awarded 1st class degree by White-Male (WM) Status

- BASc
- CivEng
- Econ
- Laws
- Maths
- MechEng
- Med
- Stats

- White male
- Non white male

0% 10% 20% 30% 40% 50% 60% 70%
Who is the median undergraduate Economics student?
Who is the median undergraduate Economics student?

**Ethnicity Breakdown (%)**

- **White**: 40%
- **Asian**: 45%
- **Mixed/Other**: 5%
- **Black**: <5%
- **Unknown**: <5%
POLAR (Participation Of Local Areas) is a regional deprivation measure taking the proportion of children in a postcode attending university.
Who is the median undergraduate Economics student?

<table>
<thead>
<tr>
<th></th>
<th>Economics</th>
<th>Similar programmes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Students</td>
<td>448</td>
<td>457</td>
</tr>
<tr>
<td>Proportion Male</td>
<td>76.3</td>
<td>77.7</td>
</tr>
<tr>
<td>Proportion With Disability</td>
<td>4.5</td>
<td>7.2</td>
</tr>
<tr>
<td><strong>Secondary School Type (%)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State</td>
<td>41.1</td>
<td>21.9</td>
</tr>
<tr>
<td>Independent</td>
<td>58.3</td>
<td>72.9</td>
</tr>
<tr>
<td>Unknown</td>
<td>0.7</td>
<td>5.3</td>
</tr>
<tr>
<td><strong>Ethnicity (%)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>41.3</td>
<td>42.7</td>
</tr>
<tr>
<td>Black</td>
<td>2.7</td>
<td>4.2</td>
</tr>
<tr>
<td>Asian</td>
<td>47.1</td>
<td>40.3</td>
</tr>
<tr>
<td>Other</td>
<td>7.8</td>
<td>12.3</td>
</tr>
<tr>
<td><strong>POLAR Quintile (%)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2.7</td>
<td>2.6</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>6.6</td>
</tr>
<tr>
<td>3</td>
<td>6</td>
<td>10.7</td>
</tr>
<tr>
<td>4</td>
<td>21.9</td>
<td>26.9</td>
</tr>
<tr>
<td>5</td>
<td>63.2</td>
<td>51.6</td>
</tr>
</tbody>
</table>

Similar programmes defined as those with A* Maths A level requirement: Mathematics, Mechanical Engineering, Statistics, and Theoretical Physics.
Who is the median undergraduate Economics student?

Average school characteristics reported in this table

Similar entry requirements are courses which require an A*/A at Maths A-level.

Disadvantage status - Disadvantage status is given at age 16, defined as those who were eligible for free school meals at any point in the previous six years or having been looked after by their local authority.

<table>
<thead>
<tr>
<th>Subject</th>
<th>Percentage disadvantaged*</th>
<th>Percentage going on to the top third of universities*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Lower CI</td>
</tr>
<tr>
<td>Economics</td>
<td>12.65</td>
<td>10.79</td>
</tr>
<tr>
<td>Biochemical Engineering</td>
<td>22.21</td>
<td>17.99</td>
</tr>
<tr>
<td>Mechanical Engineering</td>
<td>22.44</td>
<td>18.73</td>
</tr>
<tr>
<td>Maths</td>
<td>17.59</td>
<td>15.01</td>
</tr>
<tr>
<td>Statistics</td>
<td>19.28</td>
<td>12.29</td>
</tr>
<tr>
<td>Physics</td>
<td>21.69</td>
<td>18.85</td>
</tr>
<tr>
<td>Theoretical Physics</td>
<td>18.07</td>
<td>11.13</td>
</tr>
<tr>
<td>UK average for independent schools</td>
<td>18.40</td>
<td></td>
</tr>
</tbody>
</table>
Why do grades vary by ethnicity (and gender)? (overall)
Why do marks vary by ethnicity and gender?

• Most of the gap is coming from the required courses, so advice on course choice isn’t going to help

• Very little of the gap in the first year required courses is explained by the observed variables

• The variables that best explains the gap in second year required courses are socio-economic status (POLAR and school quality)
What do our results imply for policy?

- Very few black students and students from disadvantaged backgrounds
  - Recruitment
  - Retention
- What is it about the required courses that is leading to bigger gaps in grades?
  - Learning support
  - Changes in content and methods
- Top graduate programmes – reconsidering admission requirements
Thanks for listening! Questions?

p.chaudhury@ucl.ac.uk

@ParamaChaudhury