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Diversity Report: Royal Economic Society

Who Studies Economics?

An Analysis of Diversity in the UK Economics Pipeline

Stefania Paredes Fuentes | Tim Burnett | Gabriella Cagliesi | Parama Chaudhury | Denise Hawkes

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Contents

Summary and Key Findings	1
1. Introduction	4
1.1 Economics students in context	4
2. Socio-economic background of economics students	7
3. Access: Who Enters the Economics Pipeline?	12
3.1 A-Level in Economics	12
3.2 A-Level in Mathematics	16
3.3 Conditional probabilities of studying economics	16
3.4 Distance from home to university	17
4. Who offers Economics?	24
4.1 Mode of Study: Part-Time/Full-Time	24
4.2 University classification	25
4.3 Universities by entry requirements	30
4.4 Student composition by university group	30
5. Continuation: Who Leaves?	33
5.1 Socio-economic background	34
5.2 Ethnicity	35
6. Degree outcomes: Who is awarded a good degree?	37
6.1 Who gets a low degree classification?	41
6.2 Conditional probabilities of being awarded a good degree	43
7. Conclusion: socio-economic factors matter to increase diversity in economics	46
8. References	49
Appendix: Data and Technical details	51
A1. Data	51
A2. Estimated Probabilities	53

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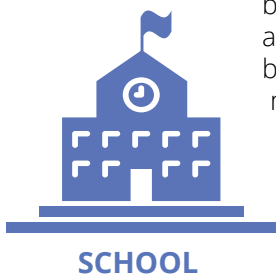
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Summary and Key Findings

It has become established to refer to the “pipeline” when studying the stages of education and career development that leads to becoming a professional economist, from school, to undergraduate and graduate studies, to entering the workforce in academic, and professional roles. A leaky pipeline refers to the phenomenon of a disproportionate number of individuals from certain demographic groups leaving the field at various stages of their education and career, resulting in a loss of diversity and under-representation in the profession. There is indeed a substantial body of evidence showing that economics lacks diversity and exhibits a leaky pipeline, at least for gender and ethnic minorities, i.e., women and individuals from ethnic minority groups are more likely to leave economics at various stages of their careers.

In this report, we provide a more comprehensive analysis of diversity in economics by exploring the intersection of socio-economic background, gender, and ethnicity among economics students. Individuals from different socio-economic backgrounds bring unique social and cultural capital, as well as distinct lived experiences, which may shape their perspectives on economic issues, research interests and proposed solutions. A more diverse economics profession will be better placed to deal with the ever-changing challenges facing the economy and society more generally.



Recognising the importance of this diversity in promoting the development of economics, our work contributes to a better understanding of the economics pipeline and significant leakages. This report can inform the strategies of government, employers, and universities in addressing structural issues in the economics pipeline and promoting greater representation of under-represented groups in economics.

We focus on UK undergraduate students, including who enters universities and who graduates. This is a crucial stage in the pipeline for producing future economists in the public and private sectors, as well as influential economists in academia. By focusing on undergraduate students, we gain insights into potential barriers to entry and retention, as well as identify opportunities for promoting greater diversity and inclusion in the field at very early stages in the pipeline.

ECONOMICS UNDERGRADUATES



ENTRY: Those who do not study Economics
CONTINUATION: Those who drop university without finishing the degree
GRADUATION: Those awarded a lower degree-classification

MAIN FINDINGS:

- Economics can be considered an elitist discipline. It has the lowest proportion of students from low participation neighbourhoods in higher education compared to all other disciplines: merely 5% of economics students come from these neighbourhoods (this is 12% for the overall student population). Moreover, 20% of economics students studied in private schools, in contrast to 9% of the overall student population, and 53% have parents in managerial and professional occupations compared to 39% of the overall student population.
- The socio-economic diversity of economics students in Russell Group universities is particularly concerning. The percentage of students from low participation neighbourhoods in Russell Group universities falls to 4%, while 30% are from private schools and 64% have parents in managerial and professional occupations.
- White male students from higher socio-economic backgrounds are significantly overrepresented in economics across all types of universities. They account for 33 out of 100 students in Russell Group universities, 27 out of 100 in Pre-1992 universities, and 21 out of 100 in Post-1992 universities.
- Gender imbalance in economics start very early: girls who study economics at A-level are less likely to continue studying economics at university compared to boys, with only 18% of girls choosing economics compared to 25% of boys. However, when considering students who studied both maths and economics at A-level, the gender gap in economics enrolment disappears.
- Irrespective of gender or ethnicity, pupils from lower socio-economic backgrounds with A-levels in economics are less likely to study economics at university. The gap narrows but persists if we consider maths A-level too.
- Economics students are more likely to come from Greater London and surrounding regions. This may be due to the high concentration of economics degrees in the southern regions of England.
- Students from lower socio-economic backgrounds and ethnic minorities tend to attend universities closer to their homes. The limited offer of economics degrees outside southern regions of England, and outside Russell Group institutions may have a significant impact on their decisions on what to study at university.
- Leakages in economics education at undergraduate level are a major concern, particularly for underrepresented groups. Black, Bangladeshi, and Pakistani students, who are already underrepresented in economics, have lower continuation rates after Year 1, with Bangladeshi students experiencing a gap of -6.23 percentage points and Black students experiencing a gap of over 4 percentage points. These gaps are even more pronounced for students from neighbourhoods with low participation in higher education.
- Socio-economic background is a significant factor in students dropping out of economics at university. Even white students from low participation areas have a lower continuation rate compared to the average student population in economics.
- While economics fails to attract women into studying the subject, those who do study economics do well. In fact, they are less likely to drop out and more likely to be awarded a "good degree" (2:1 or above) and a first class degree than male students from the same socio-economic background and ethnicity.

- Students from lower socio-economic backgrounds, regardless of gender or ethnicity, are less likely to be awarded a good degree in economics. This matters for future employability opportunities and impact the diversity of economists down the pipeline. Students from low participation areas in higher education were over 4 percentage points less likely to be awarded an upper-second-class degree or above, and over 6 percentage points less likely to be awarded a first-class degree in economics.
- Economics students in Russell Group universities are less likely be awarded a low degree classification. However, this is not the case for students from Black ethnic groups, who are more likely to receive a lower degree classification regardless of the university they attend.
- The gap in first-class degrees between Black and White students has increased over time. In 2020/21, Black students from higher socio-economic backgrounds had a 30% probability of being awarded a first-class degree, compared to 51% for their White peers from the same background, even when controlling for previous education. Both probabilities are lower for students from lower socio-economic backgrounds (22% and 41%, respectively).

“

Students from lower socio-economic backgrounds, regardless of gender or ethnicity, are less likely to be awarded a good degree in economics

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1 Introduction

In recent years, attention has been given to the lack of diversity in the economics profession. Two recent reports by the Royal Economic Society highlight the gender imbalance in academia (Bateman et al, 2021) and the issues for economists from ethnic minority backgrounds (Advani, Sen, and Warwick, 2020).

This report presents new findings on the lack of diversity in UK economics by examining the socio-economic background of undergraduate economics. It moves beyond simply identifying *who is missing from economics* in terms of specific demographic characteristics, and instead investigates the demographic make-up of economics students at different points in the *pipeline*—the stages of education and career progression leading to becoming a professional economist. The report also aims to identify “*leakages*” in the pipeline, which refer to the stages where individuals from certain demographic groups are disproportionately leaving the field.

This report’s findings reveal a lack of socio-economic diversity in economics. Students from lower socio-economic backgrounds are less likely to study economics at A-level, and even those who do are less likely to choose economics at university. Those who choose to study economics are more likely to drop out and, if they complete their studies, are more likely to be awarded a lower degree classification (regardless of gender or ethnicity) impacting their chances to access graduate jobs, potentially hindering social mobility.

The lack of diversity and leakage issues concerning socio-economic background goes beyond social justice. Neglecting the lack of diversity in this regard may have broader effects on the discipline of economics. Failing to engage, attract, and train economists from under-privileged backgrounds may result in a lack of representation of voices from these groups among economists, potentially leading to biased views on critical economic issues, including poverty, deprivation, inequality, and other social aspects that impact different sectors of the income distribution in distinct ways.

In this section, we present the general background of economics students compared to the rest of the student population. In Section 2, we conduct a comprehensive analysis of the socio-economic background of economics students and investigate how this intersects with gender and ethnicity. This analysis highlights the lack of socio-economic diversity among undergraduate students. In Section 3, we focus on the demographic composition of students studying economics at an early stage (A-levels) and their decision to continue with economics at university. Our findings show that girls and students from lower socio-economic backgrounds are less likely to study economics at university, even if they have studied economics at school. Student decisions may also be influenced by factors such as the availability of economics degree programmes at universities, entry requirements, and university location. In Section 4, we map the offer of economics degree programmes across UK universities and examine systematic differences in the student populations at different institutions.

Attracting more diversity into economics is not enough. Economics has also a retention problem. In Section 5, we analyse continuation rates and identify groups that are more likely to drop out of university while studying economics. Our results reveal significant leakages by socio-economic background and ethnicity. Finally, in Section 6, we analyse the attainment of economics students. We find that students from lower socio-economic backgrounds are less likely to be awarded an upper-second- or first-class degree, and that the gap between White and Black ethnic groups receiving a first-class degree has increased over time. Section 7 presents some implications for universities and policy makers.

1.1 Economics students in context

Undergraduate study of economics is a critical early stage in the pipeline into the economics profession, as it determines who becomes an economist in the public and private sector, and access to postgraduate studies and academia.

Table 1.1: UK student undergraduate enrolment: All students and economics

	2016/17		2017/18		2018/19		2019/20		2020/21	
	All	Econ	All	Econ	All	Econ	All	Econ	All	Econ
Total (UK domiciled)	1,634,490 (78%)	35,425 (66%)	1,659,355 (77%)	37,420 (66%)	1,668,720 (76%)	38,950 (67%)	1,715,950 (74%)	41,240 (67%)	1,827,100 (73%)	43,910 (67%)
Russell Group (UK domiciled)	25% (24%)	49% (46%)	25% (25%)	49% (45%)	26% (25%)	49% (44%)	25% (25%)	49% (43%)	25% (25%)	50% (45%)
Full-time (UK domiciled)	88% (88%)	96% (96%)	89% (88%)	96% (96%)	88% (87%)	96% (96%)	89% (87%)	96% (96%)	88% (86%)	96% (95%)
First year students (UK domiciled)	35% (33%)	35% (35%)	34% (33%)	34% (34%)	34% (33%)	34% (33%)	34% (33%)	34% (33%)	34% (33%)	34% (33%)
20 and under (UK domiciled)	74% (76%)	92% (95%)	75% (76%)	93% (95%)	75% (76%)	93% (95%)	74% (75%)	93% (95%)	72% (73%)	93% (94%)
Female (UK domiciled)	56% (56%)	33% (27%)	56% (57%)	32% (27%)	56% (57%)	32% (26%)	56% (57%)	32% (26%)	56% (57%)	32% (26%)
Average distance to London (in km)*	197.11	131.63	196.87	130.52	198.11	130.46	197.66	138.83	167.56	130.63

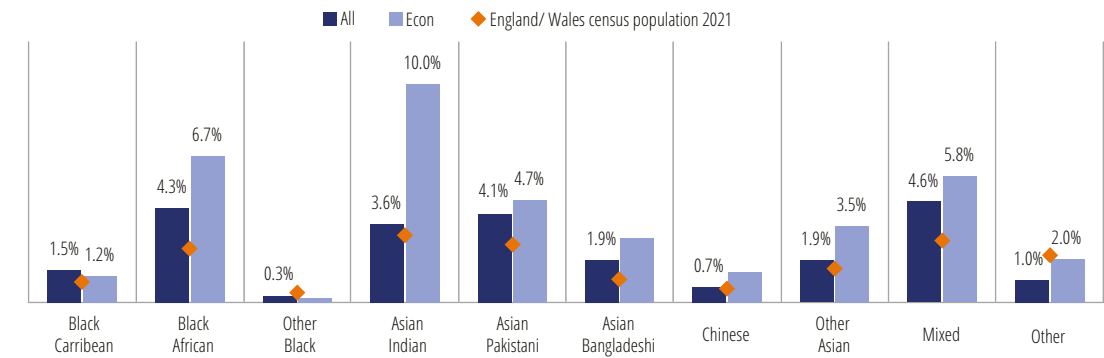
Notes: All undergraduate students by academic year, *distance from the home-domicile to London, for UK-domiciled students only.

Table 1.2: UK student ethnicity: All students and economics

Ethnic group	England/Wales population (census 2021)	2016/17		2017/18		2018/19		2019/20		2020/21	
		All	Econ	All	Econ	All	Econ	All	Econ	All	Econ
White	81.7%	77.2%	62.7%	76.3%	61.6%	75.6%	61.0%	74.6%	59.8%	73.8%	58.9%
Black or Black British/ Welsh - Caribbean	1.0%	1.5%	1.1%	1.5%	1.2%	1.5%	1.2%	1.5%	1.2%	1.5%	1.2%
Black or Black British/ Welsh - African	2.5%	3.7%	6.0%	3.8%	6.2%	4.0%	6.0%	4.2%	6.3%	4.3%	6.7%
Other Black background	0.5%	0.3%	0.2%	0.3%	0.3%	0.3%	0.3%	0.3%	0.2%	0.3%	0.2%
Asian or Asian British/ Welsh - Indian	3.1%	3.5%	10.3%	3.5%	10.3%	3.6%	10.1%	3.6%	10.1%	3.6%	10.0%
Asian or Asian British/ Welsh - Pakistani	2.7%	3.7%	3.7%	3.3%	3.9%	3.6%	4.1%	3.8%	4.4%	4.1%	4.7%
Asian or Asian British/ Welsh - Bangladeshi	1.1%	1.4%	2.2%	1.5%	2.5%	1.6%	2.7%	1.7%	3.0%	1.9%	3.0%
Chinese	0.7%	0.7%	1.7%	0.7%	1.7%	0.7%	1.6%	0.7%	1.5%	0.7%	1.4%
Other Asian background	1.6%	1.6%	2.8%	1.7%	3.0%	1.8%	3.1%	1.9%	3.3%	1.9%	3.5%
Mixed	2.9%	3.5%	4.9%	4.1%	5.0%	4.3%	5.2%	4.4%	5.6%	4.6%	5.8%
Other	2.2%	1.2%	1.7%	1.2%	1.8%	1.3%	1.9%	1.4%	1.9%	1.1%	2.0%
Unknown/ not applicable	0.0%	1.9%	2.7%	2.0%	2.7%	2.0%	2.7%	2.1%	2.6%	2.1%	2.6%

Notes: All undergraduate students by academic year

Figure 1.1: Percentage of UK-domiciled students by ethnic groups (2020/21)



Notes: All UK-domiciled undergraduate students registered in 2020/21

Any issues in this stage can significantly impact the diversity of economists in all areas.

This report relies on data from the UK Higher Education Statistics Agency (HESA) between 2016/17 and 2020/21.¹ In most of the report, we look at UK-domiciled students, who registered full-time. Table 1.1 offers a general overview of the undergraduate students in economics compared to the rest of the student population for the five academic years. As of 2020/21, UK universities had 1,827,100 undergraduate students, of which 73% were UK-domiciled. Since 2016/17, the total number of students has increased by approximately 12%, with international students increasing at a faster rate, resulting in a decline in the proportion of UK-domiciled students over the same period.

Economics degrees attract 2.4% of the overall student population, and Russell Group universities attract approximately 50% of all economics students. Over the five academic years of our data, the number of economics students has increased at twice the rate of the overall student population. The subject attracts a larger proportion of international students (33% compared to 27% of the overall student population in 2020/21). Unlike the wider student population, there have been negligible changes in the UK-domiciled/international student ratio in economics in recent years. Most economics undergraduate students (around 96%) are enrolled in full-time degrees, which is higher than the overall student population (around 88%), and over 93% begin their course at 20 years of age or

younger, in contrast to the 72% of the overall student population.

One of the most striking differences between economics and the general student population is the sex composition and a lot of the literature has focused on understanding the gender imbalances in economics, see for instance the Royal Economics Society Report on “The Gender Imbalance in UK Economics” by Bateman et al. (2021). Female students account for only 32% of economics students, and this drops to 26% when considering only UK-domiciled students, despite representing over 50% of the overall student population.

Economics has been successful in recruiting from ethnic minority groups. Table 1.2 shows that, in general, ethnic minority students are more likely to attend university than White students and more likely to study economics (Figure 1.1).²

The aim of this report is to advance the existing literature on diversity in economics and identify stages in the pipeline where students from specific groups are more likely to exit the discipline. More work is necessary to understand how to remove obstacles for under-represented groups in economics and promote their success in the field. We urge universities, employers, and policy makers to increase their efforts and facilitate the changes necessary to increase and retain diversity in economics.

1 A full explanation of the data in Appendix A1.

2 We are using Black, Asian, and Minority Ethnic groups to identify ethnicity. This is mainly due to how data is collected in the UK statistics. The data is explained in Appendix A1 where we also explain the shortcomings of this classification.

2 Socio-economic background of economics students

A lack of socio-economic diversity among economists could lead to a lack of economic research on some social aspects and even a skewed perspective among economists on these issues. Despite this, the issue of socio-economic diversity in economics is often overlooked although a recent study in the US highlights a gap in socio-economic diversity among PhDs in economics (Schultz and Stansbury, 2022). It is crucial to prioritise understanding and addressing the lack of socio-economic diversity, as failing to do so may result in a lack of engagement, attraction, and training of economists from underprivileged backgrounds of any ethnicity or gender.

The available data allow us to approximate socio-economic background through four variables: parental occupation, parental education, school attended, and participation of local areas in higher education (POLAR4). As shown in Table 2.1, the data reveals that, across all academic years, economics students have a higher likelihood of having parents who received a university education compared to the average university student, are less likely to come from neighbourhoods with low participation in higher education, and more likely to have attended private schools. They are also more likely to have parents in managerial and professional occupations than the overall student population.

Comparing economics to similar disciplines, either by the technical content (STEM subjects) or by related topics of study (social sciences and business and management), we find that economics students on average come from higher socio-economic backgrounds, are more likely to have parents with university-level education, and in managerial and professional occupations.

Conversely, they have a lower percentage of parents in routine or semi-routine occupations (Figure 2.1a).³

The over-representation of White economics students from higher socio-economic backgrounds is particularly notable, with 64% of White students in economics coming from this group compared to 43% of economics students from ethnic minority groups (first bars in Figure 2.1a). Conversely, only 6% of White economics students come from lower socio-economic backgrounds (second bars in Figure 4.1a), which is much lower than the overall student population (15%) and other disciplines considered. In contrast, 16% of economics students from ethnic minority groups come from lower socio-economic backgrounds (routine or semi-routine occupations), a percentage closer to the overall student population from ethnic minority groups and all other groups considered (~20%).

Figure 2.1b shows the socio-economic background of students attending different types of universities. Examining parental education and occupation by university group, a consistent—but expected—pattern emerges: Russell Group universities have a higher proportion of students from higher socio-economic backgrounds than Pre-1992 universities. Post-1992 universities have the lowest proportion of students from higher socio-economic backgrounds and the highest proportion of students from lower socio-economic backgrounds. The same trend applies to parental education.

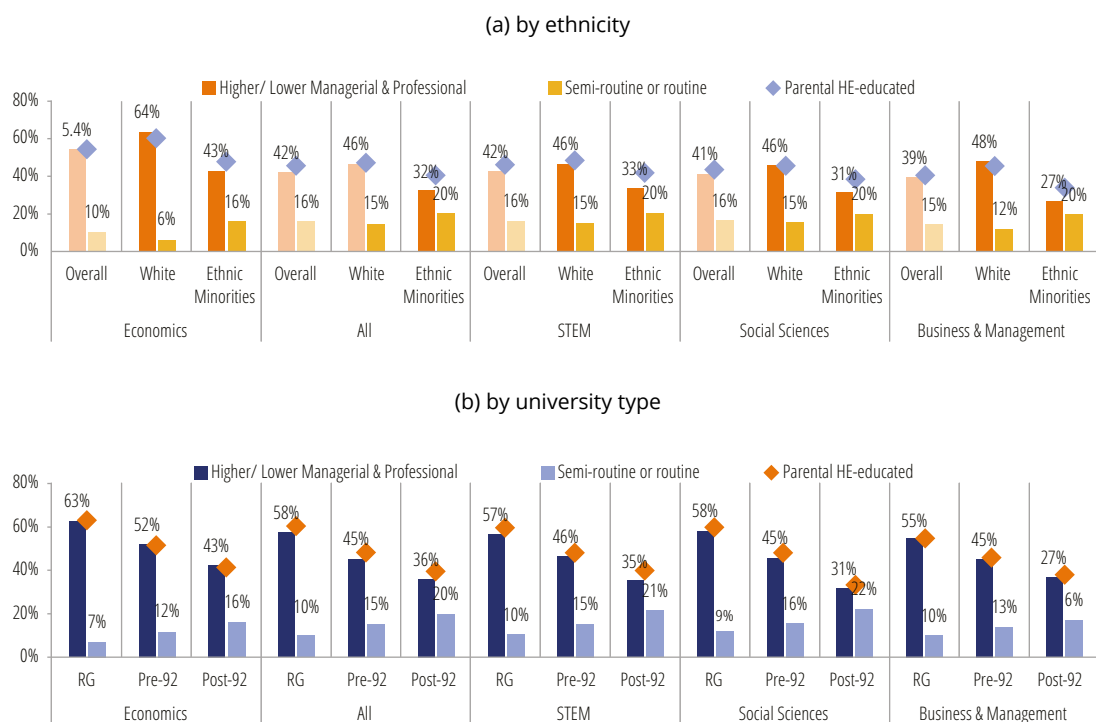
3 Disciplines similar to economics for parental education an occupation are medicine and dentistry (64% parents went to university, 57% are in higher or lower managerial and professional occupations), combined and general studies (62% and 57%), and languages, linguistics and classics (60% and 57%).

Table 2.1: Students by socio-economic background

	2016/17		2017/18		2018/19		2019/20		2020/21	
	All	Econ	All	Econ	All	Econ	All	Econ	All	Econ
Parent attended Higher Education?										
Yes	44.0%	54.3%	44.5%	53.9%	44.9%	54.7%	45.0%	54.9%	44.3%	55.2%
No	40.0%	31.5%	39.8%	32.3%	39.4%	31.8%	39.2%	31.8%	38.3%	30.5%
Participation Area (POLAR)										
Low	11.4%	4.6%	11.5%	4.7%	11.7%	4.8%	11.9%	5.0%	12.2%	5.2%
Other	87.2%	93.3%	87.1%	93.2%	86.8%	93.1%	86.7%	93.1%	86.3%	93.0%
Type of school										
Privately funded school	8.5%	21.1%	8.6%	20.8%	8.7%	20.2%	8.6%	19.8%	8.4%	19.2%
State-funded school	83.3%	73.5%	83.8%	74.2%	83.5%	75.0%	83.1%	75.5%	82.6%	75.5%
Socio-economic classification										
Higher managerial & professional occupations	18.8%	30.0%	19.7%	31.5%	20.1%	32.0%	20.0%	32.0%	19.6%	31.6%
Lower managerial & professional occupations	20.3%	23.3%	20.1%	22.2%	19.8%	21.6%	19.5%	21.4%	19.5%	22.1%
Intermediate occupations	10.5%	9.3%	11.0%	9.3%	10.9%	9.3%	10.6%	9.3%	10.3%	9.2%
Small employers & own account workers	5.5%	6.0%	5.7%	6.5%	5.7%	6.6%	5.7%	6.7%	5.5%	6.8%
Lower supervisory & technical occupations	3.6%	2.6%	3.7%	2.6%	3.7%	2.6%	3.7%	2.7%	3.7%	2.8%
Semi-routine occupations	9.9%	6.2%	9.6%	6.2%	9.4%	6.2%	9.2%	6.4%	8.9%	6.2%
Routine occupations	4.9%	3.1%	5.0%	3.3%	5.0%	3.4%	5.0%	3.6%	5.0%	3.5%
Never worked & long-term unemployed	0.3%	0.1%	0.3%	0.2%	0.4%	0.2%	0.4%	0.2%	0.4%	0.2%
Not classified or unknown	26.3%	19.5%	24.9%	18.3%	25.1%	18.1%	26.0%	17.7%	27.1%	17.7%

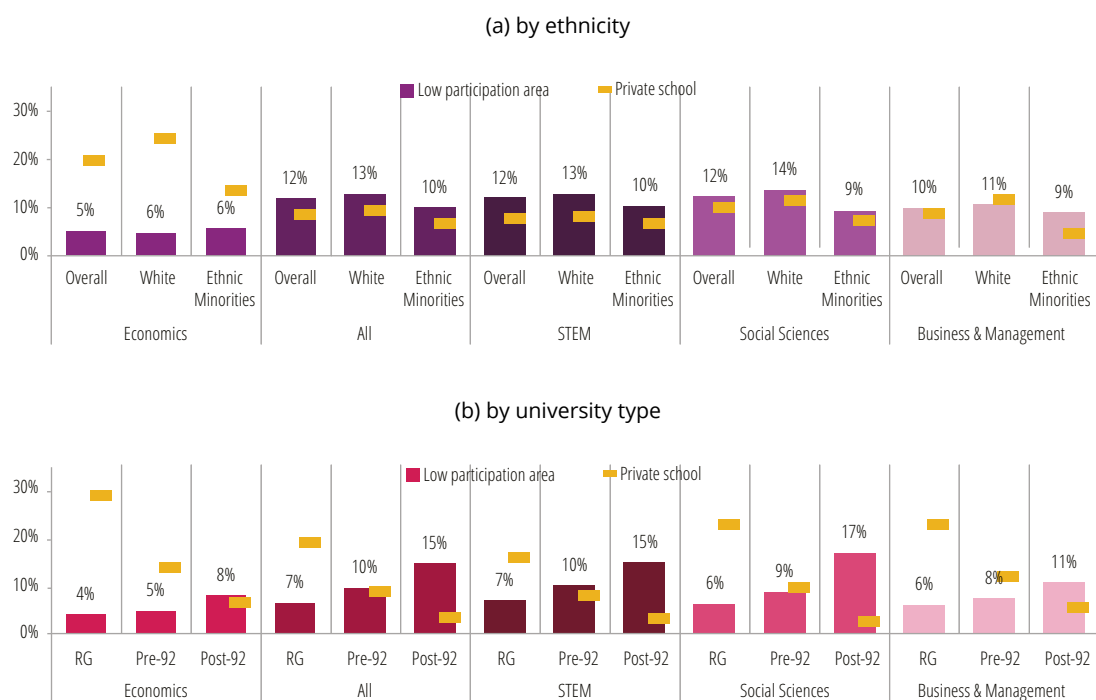
Notes: All UK-domiciled undergraduate students by academic year.

Figure 2.1: Parental education and occupation



Notes: Year 1, UK-domiciled undergraduate students registered full-time (2016/17 – 2020/21).

Figure 2.2: Participation area and private schools



Notes: Year 1, UK-domiciled undergraduate students registered full-time (2016/17 – 2020/21)

Economics is the discipline with the lowest proportion of students from low participation areas in higher education, with only 5% of economics students coming from such areas (Figure 2.2a). Additionally, the proportion of White students from low participation areas in economics is lower than that of ethnic minority students (5% versus 6%), this is in contrast to what we observe in other similar disciplines and for all university students (13% versus 10%).

Private school students are generally over-represented in higher education. Only 6% of pupils in England attend privately funded schools, according to UK National Statistics Authority (2022), but 8% of those attending universities are privately educated.

Moreover, the proportion of privately educated students in economics is significantly higher compared to similar subjects, as evidenced in Figures 2.2a and 2.2b).

This over-representation is driven by White students, with **24% of White economics students attending private schools**, compared to 13% of their ethnic minority counterparts. Conversely, only 8% of White students and 7% of ethnic minorities in STEM subjects, social sciences (11% and 7%) and business and management (12% and 5%) are privately educated.

Figure 2.3: UK-domiciled economics students from privately funded schools by ethnicity (2020/21)

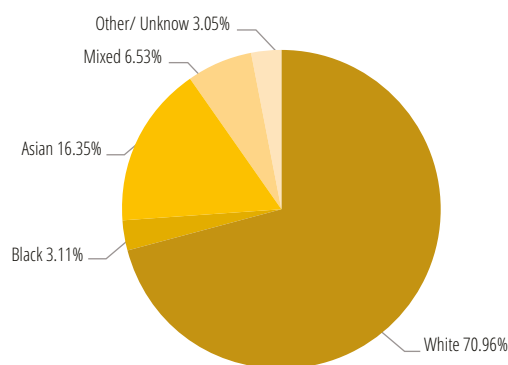


Figure 2.3 shows the distribution by aggregate ethnic groups of economics students coming from private schools in 2020/21. We can observe that 71% of privately educated students in economics are White, followed

Economics is the discipline with the lowest proportion of students from low participation areas in higher education

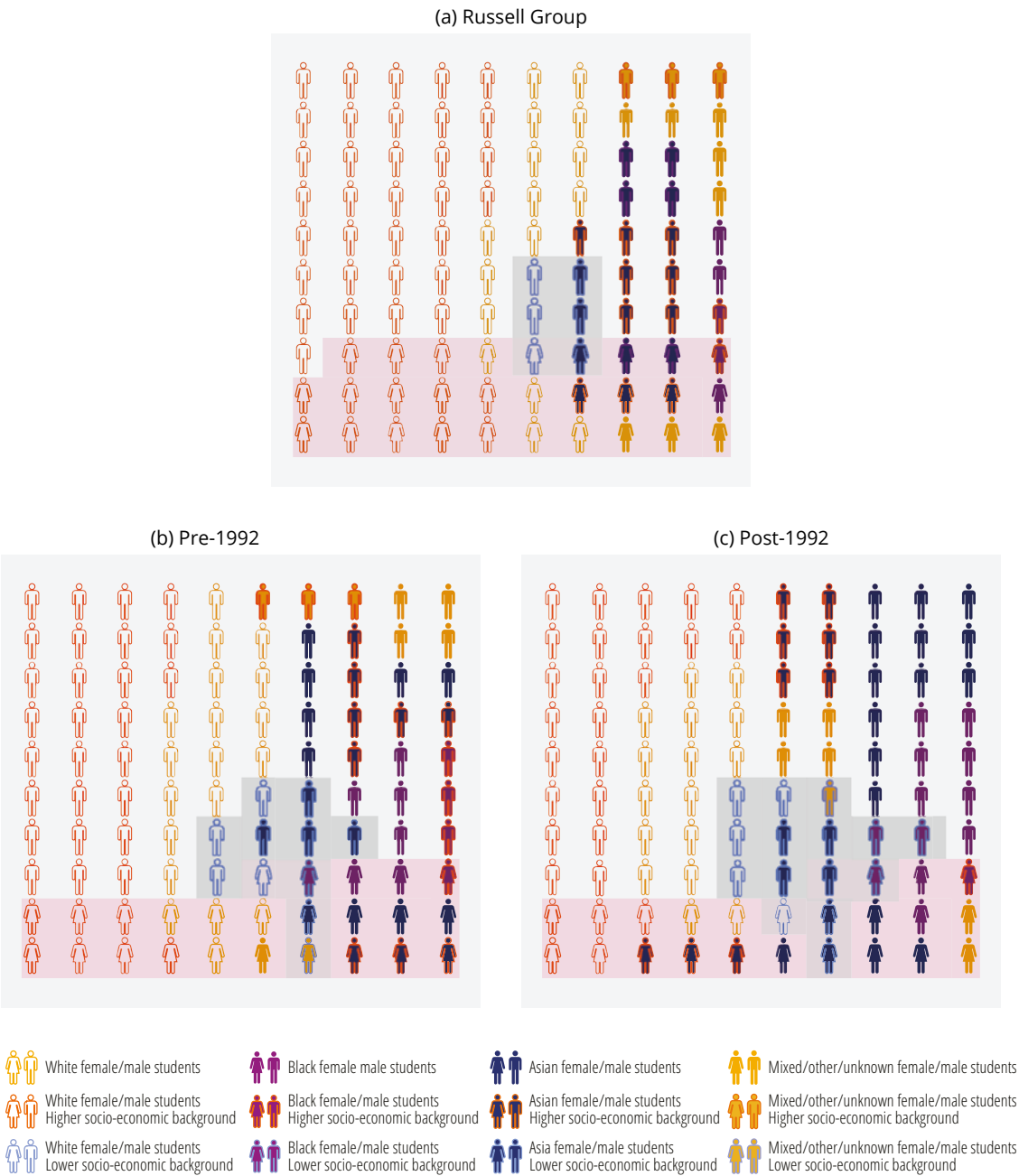
by Asian students at around 16%. Black students make up only 3% of privately educated students in economics.

Figure 2.4 shows the student body composition in economics by gender, ethnicity, and socio-economic background in Russell Group, Pre-1992, and Post-1992 universities. Key takeaways include:

- White male from higher socio-economic backgrounds is the dominant group among economics students in all universities: they are 33 out of 100 in Russell Group universities, 27 out of 100 in Pre-1992, and 21 out of 100 in Post-1992.
- Students from Asian, higher socio-economic backgrounds are 10/100 in Russell Group universities, 9/100 in Pre-1992 institutions, and 9/100 in Post-1992 institutions
- Only 6 in 100 economics students in Russell Group universities are from lower socio-economic backgrounds.
- Black students from any socio-economic background or gender are less likely to study in Russell Group universities: 5/100 compared to 11/100 and 13/100 in Pre-1992 and post-1992 universities, respectively.
- Less than 1 in 100 students in Russell Group universities are from a Black, lower socio-economic background.

Therefore, besides the issue of gender representation, **economics also faces a significant problem of under-representation from lower socio-economic backgrounds.**

Figure 2.4: Economics student composition by university group (2016/17 – 2020/21)



- Notes:
- UK-domiciled, Year 1 undergraduate students.
 - Values are rounded to the closest integer value.
 - Pink areas represent female representation, grey areas represent lower socio-economic background.

3

Access: Who Enters the Economics Pipeline?

In this section, we investigate what students with A-level in economics and maths choose to study at university.⁴

3.1 A-Level in Economics

Economics A-Level is not required to study economics at any university in the UK. However, around 70% of economics students have studied economics at A-Level,⁵ indicating that exposure to the subject at school or further education may affect the choice of economics at university level.

Important to consider that economics is not homogeneously offered at school level. In 2017, economics at A-Level was offered in only 50% of comprehensive schools in the UK (non-selective, public-funded schools), but in 83% of grammar schools (selective state-funded schools), and 77% of privately funded schools. This may further affect the demographic composition of economics students (Advani, Sen and Warwick, 2021).

Between 2016/17 and 2020/21, 7% of students with A-levels who started university had an economics A-Level. Of these, 31% are female, 33% are from an ethnic minority background, 21% attended a private school, and less than 5% are from low participation neighbourhoods. Understanding the subjects these students choose to study at university provides valuable insights into a potential key leakage in the economics pipeline: the transition from school to university.

Figure 3.1 shows what university entrants with an A-Level in economics choose to study at university by gender, ethnicity, participation area, and type of school attended. The most common subjects are *business and management* and *economics*. For those students who decide not to study either of these, the choice of subjects varies across demographic groups.

Figure 3.1a shows that female students with an A-Level in economics are less likely than male students to continue to study economics at university (21% vs 26%). Those female students who decide not to study either economics or business and management are more likely to study law (7%) or politics (6%), while male students prefer politics (6%) or engineering (5%).

Entrants from ethnic minority backgrounds with A-Levels in economics are more likely to study economics at university than White students (25% vs 21%). After economics and business and management, students from ethnic minority groups are more likely to study law (6%), engineering, mathematical sciences, and politics (5% each) (Figure 3.1b). White students are more likely to study politics (7%) or history and archaeology (5%, not in the graph).

Students from areas of low participation in HE with A-Levels in economics are more likely to study business and management than economics (29% vs 19%). If we distinguish between state- and privately funded schools, students from state schools with A-Levels in economics are more likely to study business & management (25%) than economics (23%). In contrast, privately educated students with an economics A-Level are equally likely to select business & management or economics (22%). Outside these two subjects, students from state schools with A-Levels in economics choose to study politics (6%), law, mathematical sciences (5% each), and engineering (4%).

4 There are other qualifications to access universities e.g., BTECs, Scottish Highers for Scotland, Access to Higher Education Diplomas, etc. We do not have data for all these qualifications. However, in the period under consideration, 89% of UK-domiciled economics students had A-Level qualifications (66% of all universities students).

5 Crawford, C, N M Davies and S Smith (2018), [“Why do so few women study economics? Evidence from England”](#).

Figure 3.1: What do university entrants with A-Levels in economics study?



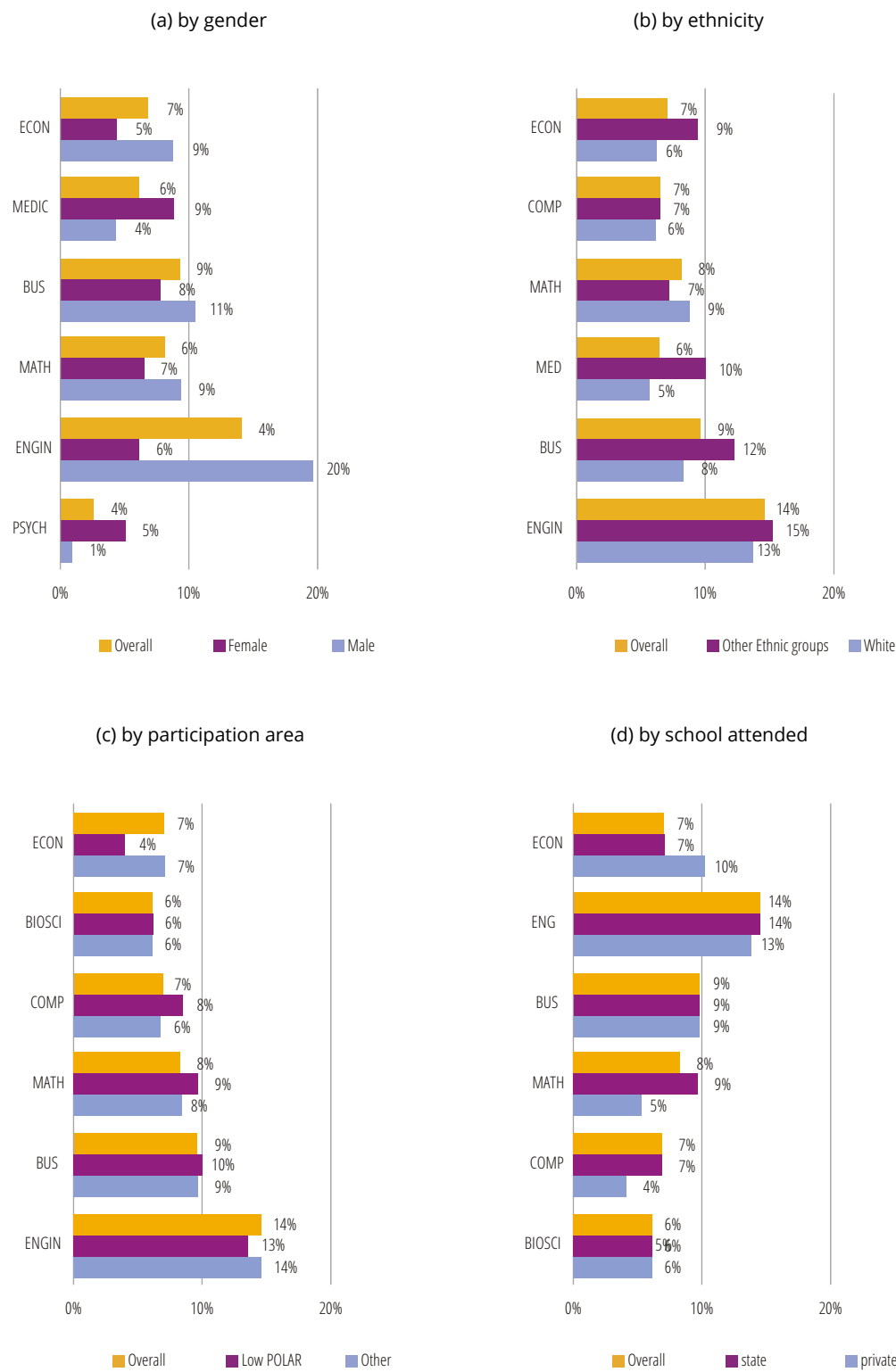
Notes: Year 1, UK-domiciled full-time undergraduate students (2016/17 – 2020/21).

Figure 3.2: What do university entrants with A-Levels in economics and maths study?



Notes: Year 1, UK-domiciled full-time undergraduate students (2016/17 – 2020/21).

Figure 3.3: What do university entrants with A-Levels in maths study?



Notes: Year 1, UK-domiciled full-time undergraduate students (2016/17 – 2020/21).

3.2 A-Level in Mathematics

Unlike an A-level in economics, A-Level in maths is a more common requirement to study economics at university, with most ‘highly selective’ and some ‘selective’ universities requiring A-Level in maths or equivalent (see Section 3).

Figure 3.2b shows that White and ethnic minority entrants with both A-Levels do not differ much in their choice of subject at university. After economics and business & management, scientific disciplines such as engineering, mathematical sciences and computing are the preferred academic areas.

Students from low participation areas with both A-levels are less likely to study economics (27%) compared to students from non-low participation areas (32%) (Figure 3.2c). After economics, business and management attracts 27% of students from low participation areas, followed by mathematical sciences (9%) and engineering (7%). We observe similar patterns for students from non-low participation areas. School type does not significantly impact subject choice for entrants with both A-Levels (Figure 3.2d).

We also look at students with A-Level in maths, independently of whether they have an A-Level in economics (Figure 3.3).

Male university entrants are more likely to hold an A-Level in maths than females (42% vs 23%). Female students with an A-Level in maths are more likely to study medicine and dentistry (9%), biosciences and business and management (8% each), while male students are more likely to study engineering (20%), business and management (11%) and computing (10%) (Figure 3.3a). Only 5% of female students with an A-Level in maths choose to study economics (9% of males).

Looking at ethnicity (Figure 3.3b), White entrants with A-levels in maths are more likely to study mathematical sciences (9%), and business and management (8%). Only 6% of White university entrants with maths A-Level study economics. Students from ethnic minority groups are more likely to study business and management (12%), medicine and dentistry (10%), and economics (9%).

Entrants from neighbourhoods with low participation in higher education with

maths A-Level are less likely to study economics (4%) compared to other areas (7%) (Figure 3.3c). Private school entrants with A-Level in maths are more likely to study economics (10%) than publicly funded school entrants (7%) (Figure 3.3d).

3.3 Conditional probabilities of studying economics

We also estimate the probability of studying economics at university conditional on various demographic characteristics.⁶ In order to provide a comparable set of results, we present the analysis for two contrasting groups of students, each group is defined by specific socio-economic characteristics:

- **Group 1 – lower socio-economic background:** students from low participation areas, with parents not educated in Higher Education working routine jobs.
- **Group 2 – higher socio-economic background:** students not from low participation areas, with parents educated at a Higher Education level, working in managerial or professional occupations.

Figure 3.4 shows the probabilities of studying economics at the university level in 2020/21 for students with A-Levels in economics (Figure 3.4a) and with both A-Levels in economics and maths (Figure 3.4b) by aggregate ethnic group and by type of school attended.⁷ To account for the high entry requirements to study economics, we estimated these probabilities conditional on students having at least 128 UCAS points.⁸ The bars in the graphs show the probability to study economics for Group 1 (lower socio-economic background), and the markers show the probability for Group 2 (higher socio-economic background).

6 A standard Logit model, with robust standard errors was used to calculate these probabilities. See explanation in Appendix A2.

7 We did not observe major changes across probabilities for each academic year considered, hence we report only the last academic year.

8 128 UCAS points is equivalent to three A-Levels with grade combinations such as ABB or A*AD and similar, which can be considered to be ‘good’ marks. For comparison, in Section 3, we consider “selective” universities to have entry requirements of at least AAB which is equivalent to 136 UCAS points.

We find that students from publicly funded schools have a slightly higher probability of studying economics. For those with A-Levels in economics, this is around 1-3 percentage points higher compared to similar gender and ethnicity students from privately funded schools. The difference is a bit lower for those with A-Levels in both economics and maths.

Across all ethnic groups, male and female entrants from wealthier socio-economic backgrounds who have A-Levels in either economics or both economics and maths, are more likely to study economics. Specifically, those from higher socio-economic backgrounds (Group 2) with A-Levels in economics are around 7-9 percentage points more likely to study economics than those from lower socio-economic backgrounds (Group 1). For those students with both A-Levels in economics and maths, the difference in the probability of studying economics between higher and lower socio-economic backgrounds is around 14-15 percentage points.

Female university entrants, regardless of socio-economic background or ethnicity, are less likely to study economics, even if they have taken an A-Level in economics or hold A-Levels in both economics and maths. Girls with A-Levels in economics are around 9-10 percentage points less likely to study economics than boys (Figure 3.4a) and girls with A-Levels in economics and maths are about 5 percentage points less likely to study economics (Figure 3.4b).

Male university starters from Asian ethnic groups with A-Levels in economics are more likely to study economics than other groups, particularly if they are from a lower socio-economic background (Group 1). Their probability of studying economics is 30% (21% for Asian females) compared to 23% for equivalently qualified White students (16% for White females) and 25% for students from Black ethnic groups (17% for Black females). This goes up to 39% for Asian males from Group 2. The differences are much smaller if students have taken both A-Levels in maths and economics.

In summary, these findings confirm concerns about diversity in economics, particularly with regard to gender and socio-economic status. Even when girls and students from lower socio-economic backgrounds have been exposed to economics in their pre-

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Even when girls and students from lower socio-economic backgrounds have been exposed to economics [...] they are less likely to choose to study economics at university

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vious education and have met the pre-requisites, they are less likely to choose to study economics at university. For example, the probability to select to study economics for a White female with an A-Level in economics, from a lower socio-economic background is only 16%, increasing to 26% if she also has an A-Level in maths. In contrast, the probability for a White male from a higher socio-economic background is 31% (increasing to 44% with an A-Level in maths).

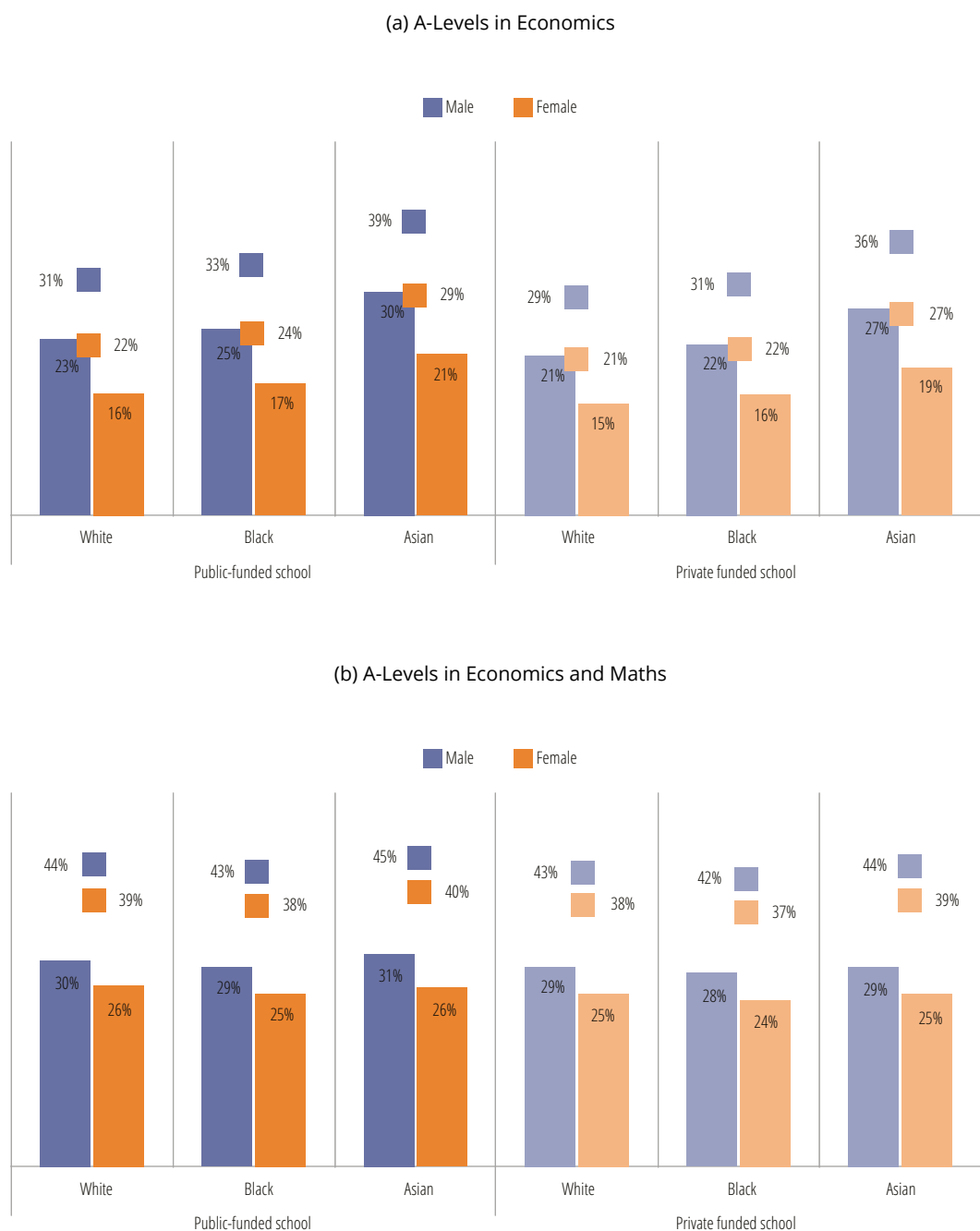
3.4 Distance from home to university

Students from lower socio-economic backgrounds face many challenges when it comes to attending university, with tuition costs and living expenses being major factors. Even if they can access loans and financial aid, they may be less likely to take on debt or face other financial and family obligations that make attending university difficult. According to research by The Sutton Trust (Donnelly and Gamsu, 2018), students from disadvantaged backgrounds are more likely to live at home, and the distance from their family home to university is linked to their socio-economic background and ethnicity.⁹ This suggests that distance from home to university can affect student diversity.

In Figure 3.5, we see the density of UK-domiciled students as a proportion of the total population in each postcode area, based on their home postcode. The lighter areas show a higher density of university

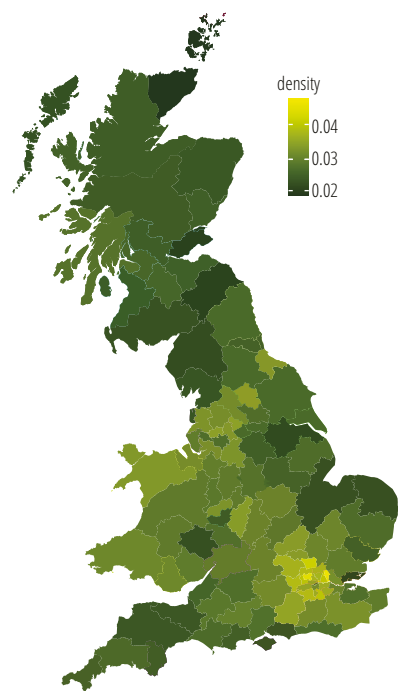
9 Sutton Trust Report “[Home and Away](#)”, published on February 2018.

Figure 3.4: Conditional probabilities of studying economics in 2020/21

**Notes:**

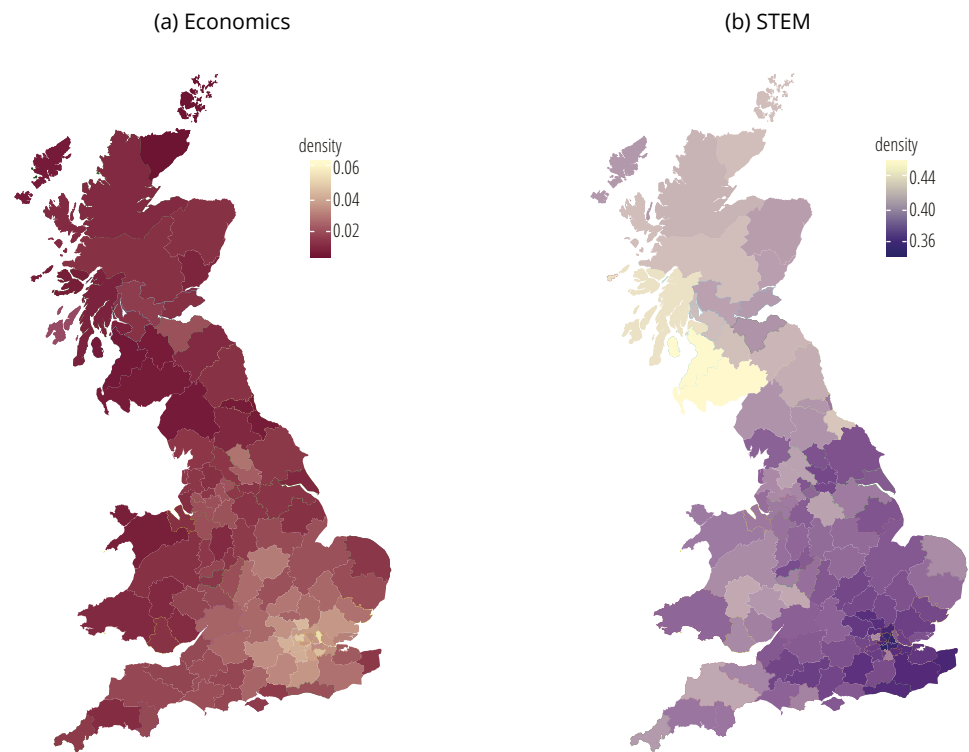
- UK-domiciled, Year 1, full-time undergraduate students (2016/17 – 2020/21).
- Data is pooled for all academic years and following “BAME” classification: Black Caribbean, African and Other are under “Black”, Asian Indian, Pakistani, Bangladeshi, Other, and Chinese are under Asian.
- Probabilities are estimated using standard Logit models with robust standard errors (see Appendix A2).
- The bars represent the probability of studying economics for Group 1, the markers show the probability of studying economics for Group 2.
- Group 1 are students from lower socio-economic backgrounds, in particular students from low participation areas, with parents not educated in Higher Education working routine jobs.
- Group 2 are from higher socio-economic backgrounds, in particular students not from low participation areas, with parents educated at Higher Education level, working in managerial or professional occupations.

Figure 3.5: UK-domiciled student density as a share of the population by postcode area



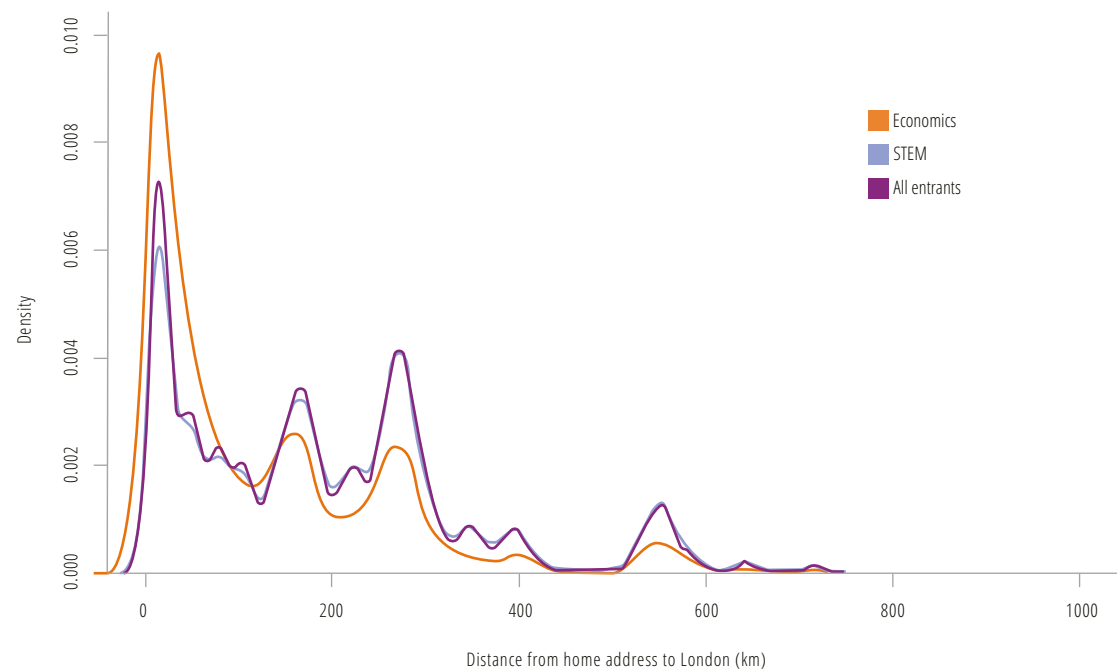
Notes: UK-domiciled, Year 1 undergraduate students (2016/17 – 2020/21)

Figure 3.6: Economics and STEM student density as a share of students from a postcode area



Notes: Year 1, UK-domiciled undergraduate students (2016/17 – 2020/21)

Figure 3.7: Density plot of distance from students' home address to London



students coming from these areas. We observe a concentration of UK-domiciled students in Greater London and the South-East of England, while in places like Devon, Norfolk, and some areas of Scotland, the proportion of the population attending university is much smaller.

In Figure 3.6 we present a slightly different metric, showing the proportion of students studying economics and STEM who originate from each area as a percentage of the total number of students from that area. This analysis helps us identify systematic patterns in the origin of students. We observe a high concentration of economics students in the South-East (Figure 3.6a). Greater London and surrounding regions have a higher proportion of economics students (shown in lighter areas on the map), while regions in the North, as well as Wales, Scotland, and Northern Ireland, have a lower proportion of economics students. This concentration is further amplified by the fact that more students come from the South-East in general (as shown in Figure 3.5). In contrast, STEM students are more evenly distributed, coming from various parts of the UK (Figure 3.6b).

Figure 3.7 confirms the concentration of economics students' home addresses in the South-East, with a density plot showing the distance between students' homes and the

geographic centre of London. Compared to STEM and the general student population, economics students are more likely to have home addresses that are closer to London.

Table 3.4 shows the average distance that UK-domiciled students travel from their home postcode to attend university for various disciplines, including economics.¹⁰ On average, economics students travel a greater distance (~126km) to attend their university of choice compared to the overall university student population (~96km).¹¹ The table also shows the distance travelled by gender, with female students generally attending universities closer to home than male students. This pattern holds true for STEM, social sciences, and business and management subjects, but not for economics, for which we observe no significant differences between male and female students.

10 Because we have only the 'outward code' (the first part of each student's postcode), a student's home location is based upon the geographic average of all postcodes associated with their particular outward code (e.g. if we are told a student is from outward code NE23, we would set the geographic location of their home as the geographic average of all postcodes beginning with NE23)

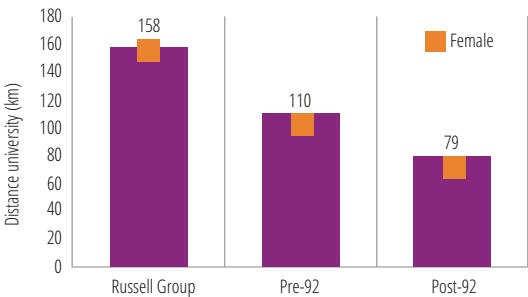
11 Economics is 11th for distance between pre-university domicile and university attended. This is lower only compared to students in languages, geography, veterinary sciences, history, medicine, among others who move more than 130km on average away from home.

Table 3.4: Average distance from pre-university domicile to London and to university (in km)

	Average distance to university (in km)		
	All	Male	Female
All Students	97.4	102.3	93.7
Economics	125.9	125.7	126.4
STEM	95.7	99.2	92.1
Social Sciences	98.5	117.3	87.3
Business & Management	87.1	89.8	83.4

Notes: UK-domiciled Year 1 undergraduate students (2016/17 – 2020/21)

Figure 3.8: Distance home-university (in km), Economics



Notes: UK-domiciled Year 1 undergraduate students (2016/17 – 2020/21)

Moreover, economics students travel the farthest to attend Russell Group universities, with an average distance of 158 km (for comparison, the distance between Birmingham and London is ~163 km) (Figure 3.8). In contrast, the average distance travelled to Post-1992 institutions is 79 km (for comparison, the distance between London and Cambridge is ~80 km). The marker in Figure 3.8 shows the distance travelled by female economics students and confirms previous findings: no significant difference in the distance travelled by male and female economics students.

Figure 3.9 displays the distance home-university by ethnicity and university group. The red markers represent the average distance for the overall student population, while the blue diamonds indicate the average distance for economics students of

the featured ethnicity. In general, economics students of most ethnic groups tend to travel farther to attend university compared to the overall student population, except for students from Asian Bangladeshi ethnic group. Students from all ethnicities travel longer to attend Russell Group universities.

Economics students from ethnic minorities travel a distance closer to the average for their ethnic group, while White students in economics tend to travel further than White students in general. White economics students attending Russell Group institutions have the longest average distance travelled to attend university: 173km (for comparison, the distance between Birmingham and London is ~176 km).

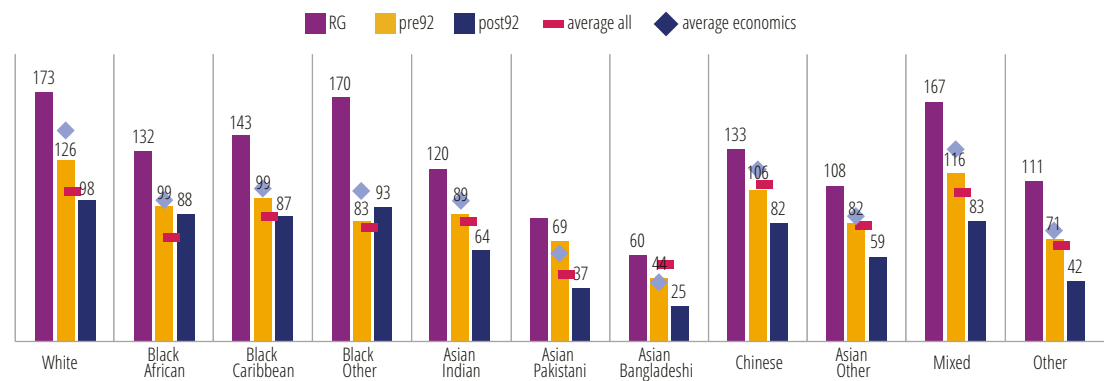
If we compare the distance home-university by socio-economic background across various disciplines, we observe that, for all disciplines, students from higher socio-economic backgrounds tend to travel longer distances to university (Figure 3.10). Notably, White students tend to travel further than the average for all groups and socio-economic backgrounds, regardless of the discipline.

No significant gender differences across ethnicity are observed in relation to the distance home-university. Additionally, for economics students, the distance travelled by female students from all ethnic backgrounds is similar to that of male students from the same ethnic group (not shown).

The evidence confirms the results from the Sutton Trust report: students from ethnic minorities and lower socio-economic backgrounds tend to attend universities that are closer to home compared to White students. The student’s socio-economic background seems to be a key determinant of the distance travelled to university. In this report, we find that economics students tend to travel longer distances, regardless of their ethnicity or socio-economic background, and that there are no significant gender differences in the distance travelled to study economics, unlike what we observe for the overall student population.

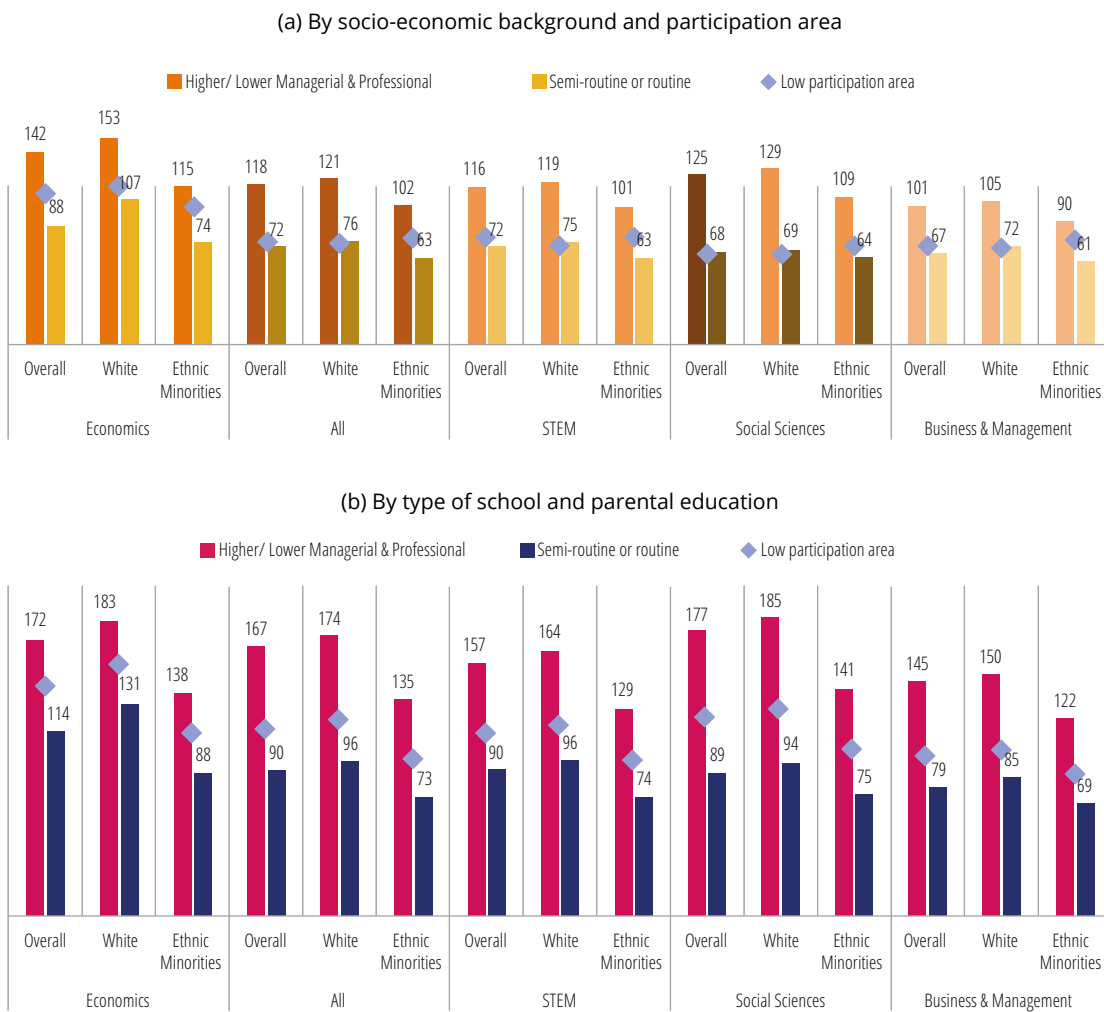
The data reveals a clear correlation between ethnic and socio-economic background, university choice, and distance travelled between home and university. As previously highlighted, students from ethnic minority

Figure 3.9: Distance home-university (in km) by ethnicity



Notes: UK-domiciled undergraduate students registered full-time (2016/17 – 2020/21).

Figure 3.10: Distance home-university (in km)



Notes: UK-domiciled undergraduate students registered full-time (2016/17 – 2020/21).

groups and lower socio-economic backgrounds are less likely to attend Russell Group universities and are more likely to choose a university that is closer to home. The average distance travelled by students from Black Caribbean backgrounds to attend a Post-1992 university is 88km, whereas, for Asian Indian students, the average distance reduces to 64km. Interestingly, the average distance travelled by Asian Bangladeshi students is only 25km, which is a commutable distance for daily travel. These findings suggest that factors such as accessibility, cost, and family obligations play a crucial role in university choice for students from these backgrounds.

The concentration of universities offering economics degrees in the South of England emphasised in the next section, may partially explain the higher representation of ethnic minority students in economics. According to the 2021 census, London remains the most ethnically diverse region in the UK, followed by West Midlands.

In contrast, the Northeast has the highest percentage of population identifying as White (90.6%). However, this concentration may also explain the lack of students from the northern regions of the UK and from Scotland and Ireland, especially from lower socio-economics backgrounds who are less likely to travel long distances to university.

This highlights the importance of considering regional factors in understanding the lack of diversity in economics. The concentration of universities in certain regions, combined with the demographics of the surrounding population, can have a significant impact on the diversity of the economics pipeline. These patterns have significant implications for universities and policy-makers, as they highlight the need to address the structural barriers that prevent students from diverse backgrounds from accessing higher education opportunities.

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Students from ethnic minorities and lower socio-economic backgrounds tend to attend universities closer to home

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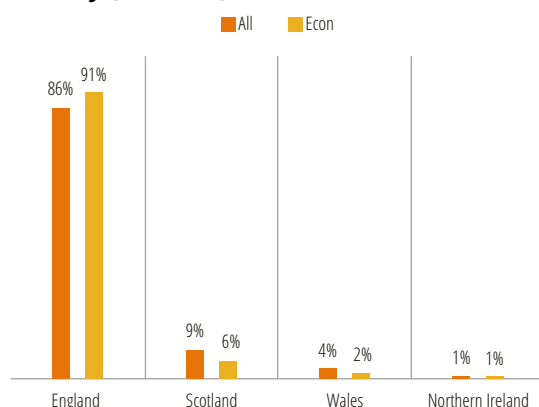
4

Who offers Economics?

Whether or not students choose to study economics at university depends both on the student's own preferences (and resources) and which universities offer economics degree programmes. In addition, aspects such as university reputation, location, and entry requirements may influence student choice of what to study at university.

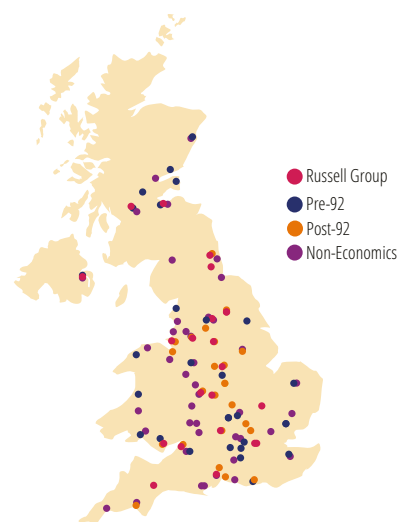
In this section, we present an overview of the availability of economics degrees across UK universities. The data covers 172 higher education providers: 138 in England, 18 in Scotland, 12 in Wales, and 4 in Northern Ireland. Of these, 86 universities in England, 11 in Scotland, 5 in Wales and 2 in Northern Ireland offer a degree in economics. Figure 4.1 highlights that 91% of UK-domiciled economics students attend universities in England. This is slightly higher than for the UK-domiciled student population in higher education. Additionally, Figure 4.2 shows that universities offering economics degrees are concentrated in southern England, which reflects the general distribution of higher education providers in the UK.

Figure 4.1: UK-domiciled students by country (2020/21)



Notes: Year 1 UK-domiciled undergraduate students in 2020/21

Figure 4.2: Geographical distribution of universities offering a degree in Economics



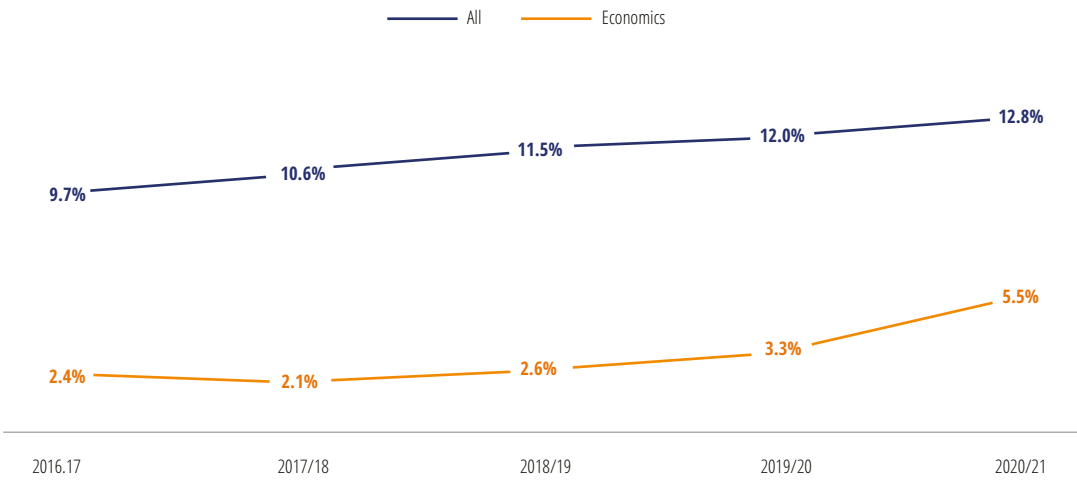
4.1 Mode of Study: Part-Time/Full-Time

While this report primarily focuses on full-time students, it is worth noting that studying part-time study is also an option in the UK. However, it is not as prevalent among UK-domiciled students. With that said, we provide a brief overview of the part-time student population in this section.

In 2020/21, only 13% of UK-domiciled students were registered part-time, an increase since 2016/17 (see Figure 4.3). Economics shows a smaller proportion of part-time students: 5.5% in 2020/21 but saw a bigger jump since 2019/20 compared to the overall student population, possibly reflecting changes in preferences after the COVID-19 pandemic. It will be interesting to observe how future developments in this area.

The low number of part-time economics students may not necessarily reflect student preferences. Only seven higher education providers openly offer part-time economics degrees through UCAS, meaning that students wishing to study part-time have a very limited choice. As a result, 70% of part-time economics students are registered at the Open University, which is the largest provider of part-time higher education in the UK and specialises in distance learning.

Figure 4.3: Part-time students 2016/17 - 2017/18



Notes: UK-domiciled Year 1, undergraduate students

Generally, the demographics of part-time students tend to differ from those of full-time students. As shown in Table 4.1, while there are no remarkable gender differences, part-time degrees tend to attract more *mature students* (21 years old and over at the time of starting university), more students from lower participation areas, and fewer students from minority ethnic groups compared to full-time students.

12% came from a low participation area to Higher Education (compared to 5% of full-time students). Since many part-time students have other commitments and may be less geographically mobile, the scarcity of higher education providers offering part-time economics programmes could disproportionately affect mature students and those from low-participation areas who may otherwise be interested in studying economics.

Table 4.1: Demographic composition by mode of study

	Part-time		Full-time	
	All	Economics	All	Economics
Female	59%	28%	57%	26%
Mature students	87%	78%	20%	4%
Ethnic minority groups	10%	19%	24%	37%
Low participation area	18%	12%	12%	5%

Notes: Year 1 undergraduate UK-domiciled students

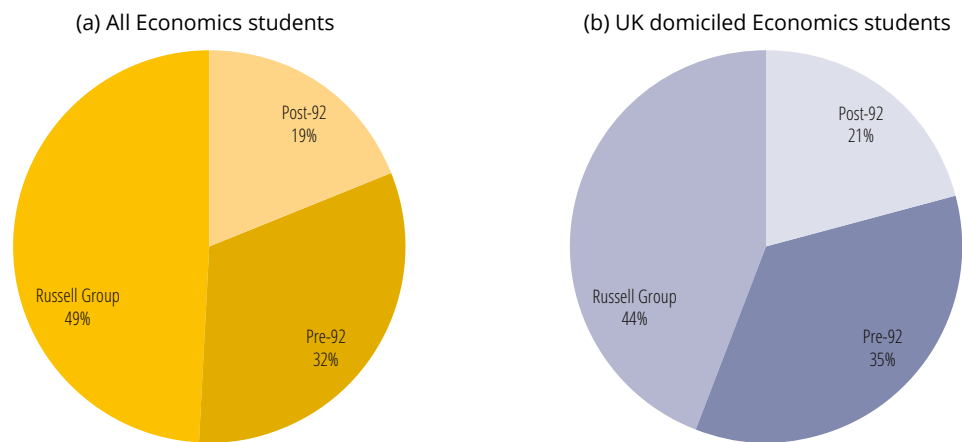
The limited availability of part-time economics programmes could potentially limit the accessibility of economics as a degree of choice. Specifically, during the period under consideration, 78% of part-time economics students were mature students (compared to 4% full-time students), and

In general, students from ethnic minority backgrounds are less likely to study part-time degrees. In fact, the overall part-time student population is less diverse in terms of ethnicity, with only 10% coming from these groups (compared to 24% for full-time degrees). In economics, 19% of part-time students are from an ethnic minority group, which is higher than the overall part-time student population and the full-time Economics student population.

4.2 University classification

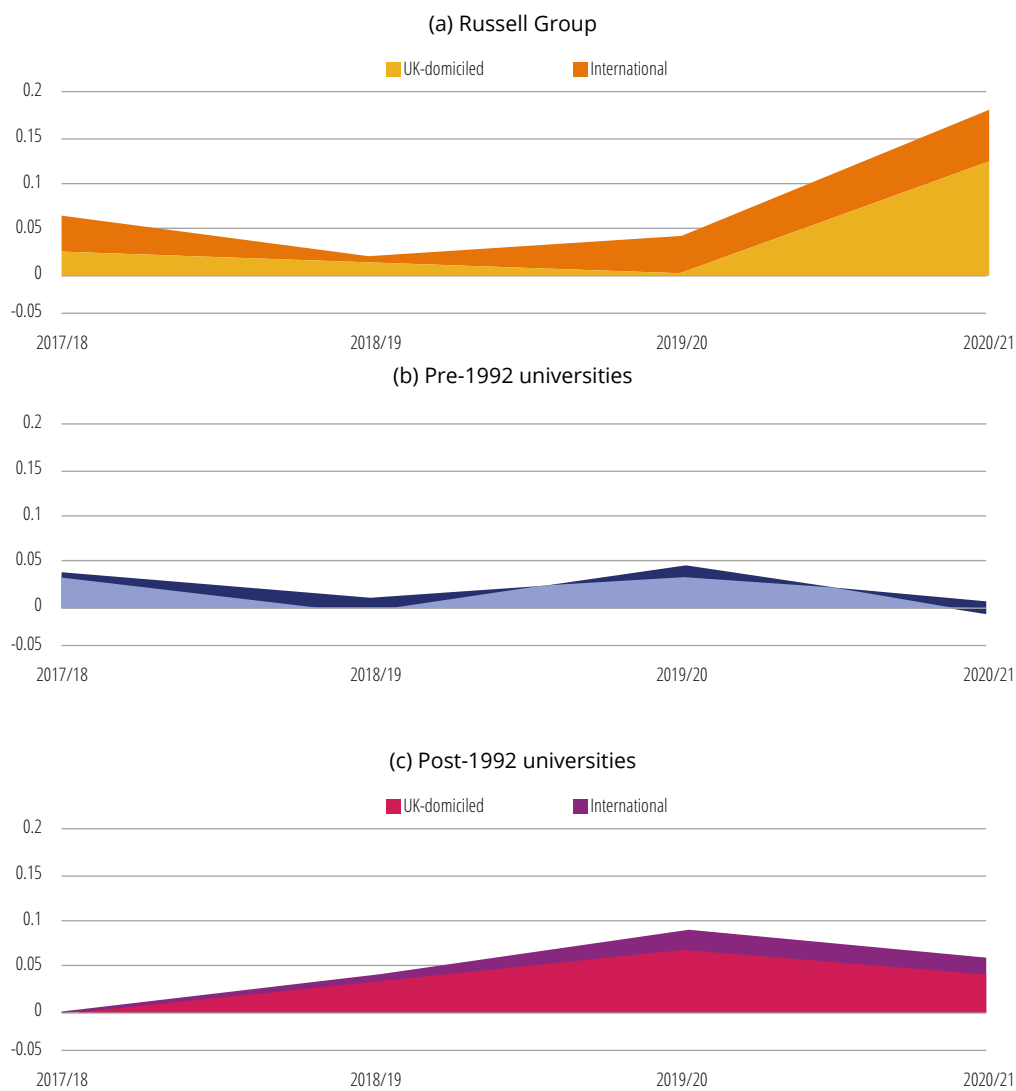
UK universities can generally be categorised according to their membership (or not) of the Russell Group, a self-declared group of leading research-intensive universities, or, for non-members, the date of their establishment. According to the data, there are 166 HE providers that offer undergraduate degrees, including 24 Russell Group universities, 53 Pre-1992, and 95 Post-1992 uni-

Figure 4.4: Economics student intake per university group



Notes: UK-domiciled, Year 1 undergraduate students registered in the period 2016/17 – 2020/21

Figure 4.5: Economics students annual growth rate



Notes: UK-domiciled, Year 1 undergraduate students.

versities.¹² Additionally, there are 37 specialist institutions that focus on arts, music, health subjects, agriculture, etc.

Economics is primarily taught in Russell Group and Pre-1992 institutions. All but one of the 24 Russell Group universities offer a BA/BSc in Economics.¹³ Among the 95 Post-1992 universities, 34 offer a degree in economics and 11 offer economics only as a joint degree, typically with business and/or finance. This means that less than 50% of Post-1992 universities offer economics, and only 36% offer it as single honours. Economics is taught in 33 Pre-1992 institutions (62%), of which one offers it only as a joint degree.

It is worth noting that the distribution of students across universities offering economics is not uniform. In the 2020/21 academic year, around 44,000 students were registered for an economics degree in Economics, up from 36,500 in 2016/17, with UK-domiciled students increasing from 23,000 to 29,000 during the same period. Figure 4.4 illustrates how economics students are distributed among Russell Group, Pre- and Post-1992 institutions. Of all students studying economics, 49% attended Russell Group universities (44% UK-domiciled), 32% attended Pre-1992 universities (35% UK-domiciled), and only 19% attended Post-1992 (21% UK domiciled).

Johnston, Reeves and Talbot (2014)¹⁴ have already noted a decrease in economics programmes offered in Post-1992 institutions, and this trend seems to persist in 2020/21. Figure 4.5 illustrates the increase in student numbers studying economics in Russell Group, Pre- and Post-1992 universities. The student intake in the 2020/21 academic year was heavily impacted by COVID-19, which led to an increase in the number of students

being awarded A* and A grades due to the cancellation of A-Level exams: 38.5% in 2020, compared with 25.2% in 2019.¹⁵ In Figure 4.5a, we observe that Russell Group universities expanded in 2020/21, while Pre-1992 universities maintained stable growth during the period considered. However, Post-1992 universities were growing before the pandemic, but they saw a substantial decrease in student numbers in 2020/21. These changes were mainly driven by changes in UK-domiciled students.

Table 4.2 lists the universities with the highest economics student intakes. The top 15 universities for student intake account for 30.5% of all economics students and have grown at an average annual rate of 6% since 2016/17, much higher than the growth rate of all economics students (3.7%) and broadly reflective of the Russell Group average. UCL is the fastest-growing university for economics student intake among the top 10, having expanded its international student intake over the period.

If we examine the largest universities for the share of UK-domiciled students, there are some differences in the lists. Exeter, Nottingham and Bristol attract the highest number of UK-domiciled economics students, with a share greater than 3% each. The largest Post-1992 university for student intake is City, University of London (not listed in the table). The Open University is the fastest-growing university for UK-domiciled students pursuing an economics degree followed by Loughborough University.

Much of the growth occurred in 2020/21 and may have been a result of the grades or as a strategy to offset potential financial losses brought about by the pandemic. Nevertheless, some universities were already expanding before this time; column 3 (and 6) in Table 4.2 also reports growth in the period 2016/17 – 2019/20 in parentheses and shows that universities such as Exeter, Manchester, and Warwick were already increasing their intake prior to COVID-19.

Overall, student numbers in economics at Russell Group universities increased

12 Five providers offer only post-graduate studies, many highly specialised (*Cranfield University, London Business School, London School of Hygiene and Tropical Medicine, Liverpool School of Tropical Medicine and The National Film and Television School*), and one provider is now closed (Heythrop College closed in 2018).

13 Since 2022/23, with Imperial College London launching a degree *Economics, Finance and Data Science*, all 24 Russell Group universities will offer a undergraduate degree in economics.

14 Johnston, J., A., Reeves, and S. Talbot (2014) "Has Economics become an elite subject for elite UK universities?" *Oxford Review of Education*, Vol. 40 N. 5, pp. 590-609.

15 See Finn, P., R. Cinpoes, and E. Hill (2022) The impact of COVID-29 on A-Levels since 2020, and what it means for higher education in 2022/23. LSE British Politics and Policy.

Table 4.2: “Large” Universities for economics student intake

All Econ Students			UK-domiciled Economics students		
University	share	% Change 2016/17-2020/21 (2016/17 – 2019/20)	University	share	% Change 2016/17-2020/21 (2016/17 – 2019/20)
Warwick ^{RG}	3.9%	6.2% (2.2%)	Exeter ^{RG}	3.5%	8.6% (11.1%)
UCL ^{RG}	3.8%	15.6% (1.7%)	Nottingham ^{RG}	3.5%	4.2% (7.8%)
Exeter ^{RG}	3.3%	7.6% (2.9%)	Bristol ^{RG}	3.1%	3.7% (8.4%)
LSE ^{RG}	3.3%	4.1% (0.1%)	Loughborough ^{PRE}	2.9%	13.0% (8.8%)
Liverpool ^{RG}	3.2%	-1.7% (7.7%)	Warwick ^{RG}	2.7%	9.8% (9.7%)
Manchester ^{RG}	3.0%	10.4% (8.9%)	Bath ^{PRE}	2.5%	5.6% (4.8%)
Nottingham ^{RG}	2.8%	2.7% (0.8%)	Leeds ^{RG}	2.5%	4.0% (-0.4%)
Bristol ^{RG}	2.5%	3.7% (1.8%)	Open University ^{PRE}	2.4%	19.7% (28.9%)
Essex ^{PRE}	2.3%	-7.0% (-2.9%)	Kent ^{PRE}	2.4%	5.4% (2.3%)
Loughborough ^{PRE}	2.2%	12.3% (16.7%)	Essex ^{PRE}	2.3%	-12.0% (-8.9%)
Bath ^{PRE}	2.1%	4.2% (7.3%)	LSE ^{RG}	2.3%	6.5% (5.3%)
KCL ^{RG}	2.1%	7.7% (4.2%)	Manchester ^{RG}	2.2%	7.7% (10.4%)
Leeds ^{RG}	2.0%	7.0% (5.4%)	York ^{RG}	2.2%	-5.2% (-6.2%)
Birmingham ^{RG}	2.0%	13.2% (11.4%)	Sussex ^{PRE}	2.1%	4.9% (-3.8%)
Kent ^{PRE}	1.9%	4.1% (7.9%)	Newcastle ^{RG}	2.1%	2.5% (8.1%)
Top 15	40.5%	6.2% (4.4%)	Top 15	38.6%	5.5% (6.3%)
Russell Group	49.7%	6% (3.2%)	Russell Group	44.3%	5.5% (5.8%)
Pre-1992	31.2%	1.2% (1.7%)	Pre-1992	34.3%	2.1% (1.5%)
Post-1992	19%	2.1% (6.0%)	Post-1992	21.4%	2% (2.6%)
All universities		3.7% (3.3%)	All universities		3.6% (3.7%)

Notes: Year 1, undergraduate students. In subscripts, the university classification: ‘RG’ for Russell Group, ‘Pre’ for Pre-1992. There are none Post-1992 institutions in the list.

Table 4.3: University classification by economics entry requirements

University	Group	% UCAS Tariff 144+ ^(a)	Average entry tariff ^(b)	A-Levels ^(c)	Required A-Level Maths
Highly Selective (Entry requirements at least AAA and Maths) ^(f)					
Cambridge	RG	78.46	223	A*A*A	Yes
LSE	RG	78.36	188	A*AA with A* in Maths	Yes (A*)
Oxford ^(d)	RG	78.15	207	AAA	No
UCL	RG	77.33	189	A*AA	Yes
Warwick ^(e)	RG	77.30	190	A*AA	Yes
Durham	RG	73.13	182	A*AA	Yes
Bath	Pre-1992	73.03	169	A*AA	Yes
Nottingham	RG	73.01	168	A*AA - AAA	Yes
Bristol	RG	70.84	166	A*AA	Yes
Exeter	RG	70.03	160	A*AA - AAA	Yes
Edinburgh	RG	69.66	177	A*AA - AAA	Yes
KCL	RG	64.89	182	A*AA	Yes
Manchester	RG	60.16	158	AAA	Yes
Selective (Entry requirements at least AAB)					
Birmingham	RG	55.23	149	A*AA AAA (with A-Levels in Math)	Depends on qualifications
Leeds	RG	75.86	168	AAA	No
St Andrews	Pre-1992	73.72	218	AAA	No
Loughborough	Pre-1992	50.85	150	AAA	No
Queen Mary	RG	47.37	140	AAA	Yes
Sheffield	RG	42.46	147	AAB	Yes
Lancaster	RG	36.56	140	AAB	Yes
Liverpool	RG	33.16	139	AAB	Yes
Newcastle	RG	45.71	149	AAB	No
York	RG	43.53	144	AAB	No
Cardiff	RG	38.49	140	AAB-ABB	Yes
Glasgow	RG	62.99	194	AAB-BBB	Yes
Southampton	Pre-1992	35.49	139	AAB or ABB (with A-Level in Maths)	Depends on qualifications

Notes:

^(a) Percentage of students who enter the university with at least 144 UCAS Tariff points between 2016/17 and 2020/21

^(b) Average metric tariff takes the tariff points held by students at the time of entry and divides them by the number of young entrants with non-zero tariffs (Source: The Guardian University Guide 2023)

^(c) A-Levels requirements for Economics as advertised in each university's website.

^(d) Oxford does not offer a single-honours degree in Economics, but a Philosophy, Politics and Economics joint-honours. For this reason, the entry requirements differ from other highly selective institutions, but access to this degree remains highly selective.

^(e) Warwick university changed entry requirements in 2022/23 to A*A*A.

^(f) Imperial College London started a BSc in Economics, Finance and Data Science in 2021/22. This degree entry requirements would classify it as a 'highly selective' in future academic years (AAA*, with one A-Level in Maths).

by 18% between 2019/20 and 2020/21, while Pre-1992 and Post-1992 universities decreased by 1% and 12%, respectively. Looking at UK-domiciled students only, Russell Group universities increased their intake by 22%. This growth seems to have come at the expense of student numbers in Post-1992 universities, which decreased their intake of UK-domiciled students by 12%, while Pre-1992 institutions experienced a decrease of only 1%.

4.3 Universities by entry requirements

Many economics degrees have specific entry requirements (i.e. formal criteria that students must meet in order to be considered for the course).¹⁶ More challenging programmes typically require very high marks for post-16 education, and due to the technical content of many economics courses, various HE providers require A-Level in Maths (or equivalent). Notice that A-Level in Economics is not a requirement to study economics at any university in the UK.

Table 4.3 lists the most selective universities for economics. *Highly selective* universities are those with entry requirements of at least AAA (or equivalent) and compulsory A-Level in Maths.¹⁷ *Selective* universities are those with entry requirements of at least AAB (or equivalent) that may or may not require a maths at A-Level. The table also reports the percentage of students with UCAS tariffs of 144 or higher (the equivalent of AAA or similar) and the average UCAS entry tariff per institution,¹⁸ which is calculated based on a student's academic achievements and extra-curricular activities.

The list of selective institutions largely aligns with Russell Group universities: all Russell

Group institutions but one classify as either 'highly selective' or 'selective'. Among the Pre-1992 institutions the University of Bath, St Andrews, Loughborough, and Southampton are either considered highly selective or selective. No Post-1992 institutions are among the selective institutions.

4.4 Student composition by university group

In this section, we compared the composition of students across different university categories. We consider UK-domiciled, full-time, undergraduate economics students in each academic year, registered full-time.

We observe a high correlation among university groups, especially between the Russell Group and the more selective universities. This is not surprising, given that Russell Group institutions have higher entry requirements and more competitive admissions. Notably, it seems that the expansion of these universities in recent years had little impact on the composition of UK-domiciled economics students in the period considered.

Figure 4.6 shows the proportion of female students in each university category. The proportion of female students in Russell Group universities is 29%, which is higher than in Pre- or Post-1992 (25% and 23% respectively). 'Large' and 'highly selective' universities also attract a similar proportion of female students. These proportions are quite stable over the period 2016/17 to 2020/21, demonstrating little variation in the gender composition of the economics student population in these groups.

On the other hand, there are significant differences in ethnic representation. Over the considered period, around 37% of economics students are from ethnic minority backgrounds. However, the proportion is higher in Post-1992 (around 50%) and lower in Russell Group universities (around 30%). In *highly selective* universities, the proportion of students from ethnic minority groups increased to approximately 36% in 2020/21, almost six percentage points higher than in 2016/17 and similar to that in *large* universities.

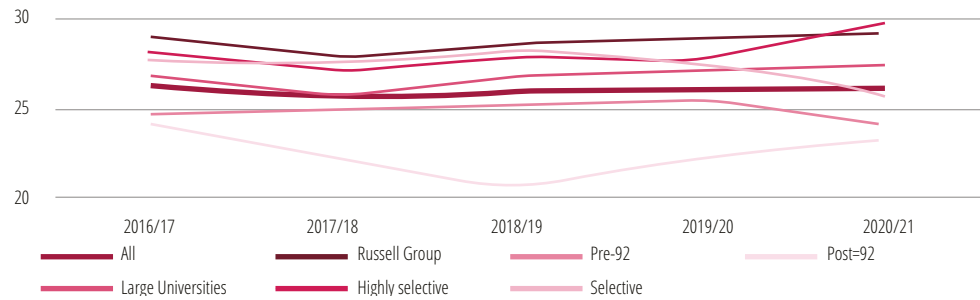
We observe similar patterns for students from low participation areas to HE. Only

16 See an explanation of university entry requirements in the UK: <https://www.theuniguide.co.uk/advice/ucas-application/what-are-university-entry-requirements#ucaspoints>

17 Oxford University does not offer a single-honours degree in Economics, but a joint honours degree in Politics, Philosophy and Economics (PPE) and does not explicitly require an A-Level in Maths. However, the average entry tariff for Oxford is very high and for this reason we have included among the highly selective institutions.

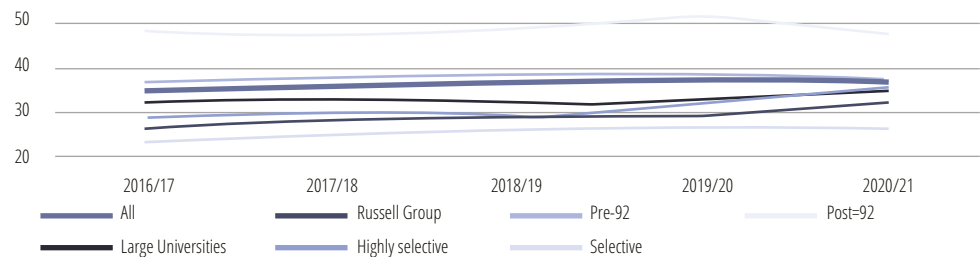
18 Read about how UCAS tariffs are calculated here: <https://www.theuniguide.co.uk/advice/ucas-application/new-ucas-tariff-everything-you-need-to-know>

Figure 4.6 Proportion of female students by university type



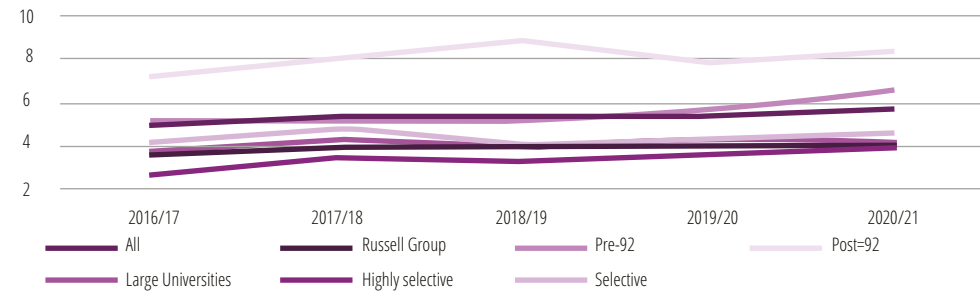
Notes: UK-domiciled Year 1 undergraduate students

Figure 4.7 Proportion of students from ethnic minority backgrounds by university type



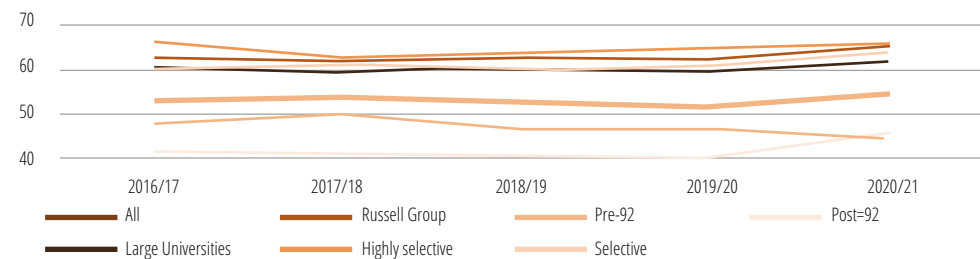
Notes: UK-domiciled Year 1 undergraduate students

Figure 4.8 Proportion of students from low participation areas by university type



Notes: UK-domiciled, Year 1 undergraduate students.

Figure 4.9 Proportion of students from “higher” socio-economic status by university type



Notes: UK-domiciled, Year 1 undergraduate students.

5% of economics students come from such areas and this percentage is lower in Russell Group and *highly selective* universities (3.7% and 3.3% respectively, see Figure 3.8), less than half the proportion in Post-1992 institutions (~8%). Despite their growth, *large* universities have not increased their proportion of students from low participation areas. *Highly selective* universities have the lowest proportion of students from low participation areas, showing a very small upward trend (from 2.6% in 2016/17 to 3.8% in 2020/21).

Around 50% of economics students come from higher socio-economic backgrounds. As shown in Figure 4.9, this varies across the different university groups, with Russell Group universities and highly selective institutions having more such students between 63 and 65% than Pre- and Post-

1992 universities between 44 and 46%. We also find a similar pattern in the proportion of privately educated students across university categories, with *highly selective* institutions having the largest share (35% in 2020/21). Russell Group universities have 30% of privately educated students, Pre-1992 have 13% and Post-1992 universities have less than 7%.

Our analysis highlights differences in student composition across different categories of higher education institutions. Russell Group and more selective universities tend to be larger and have higher entry requirements, attracting more female students and students from higher socio-economic backgrounds. These institutions also have lower proportions of students from ethnic minorities and low participation areas compared to Pre-1992 and Post-1992 institutions.

“

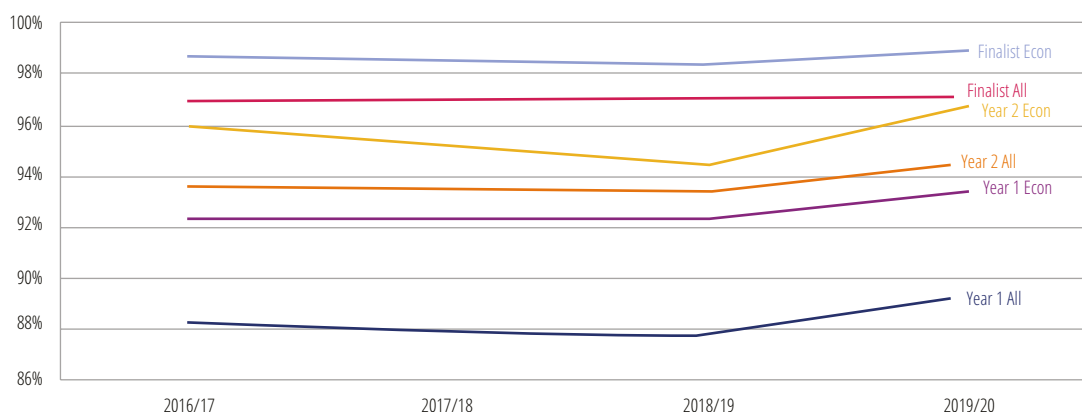
Around 50% of economics students come from higher socio-economic backgrounds. In Russell Group universities, this percentage is 63%

”

5

Continuation: Who Leaves?

Figure 5.1: Continuation per academic year. All students and economics



Notes: UK-domiciled, Year 1 undergraduate students.

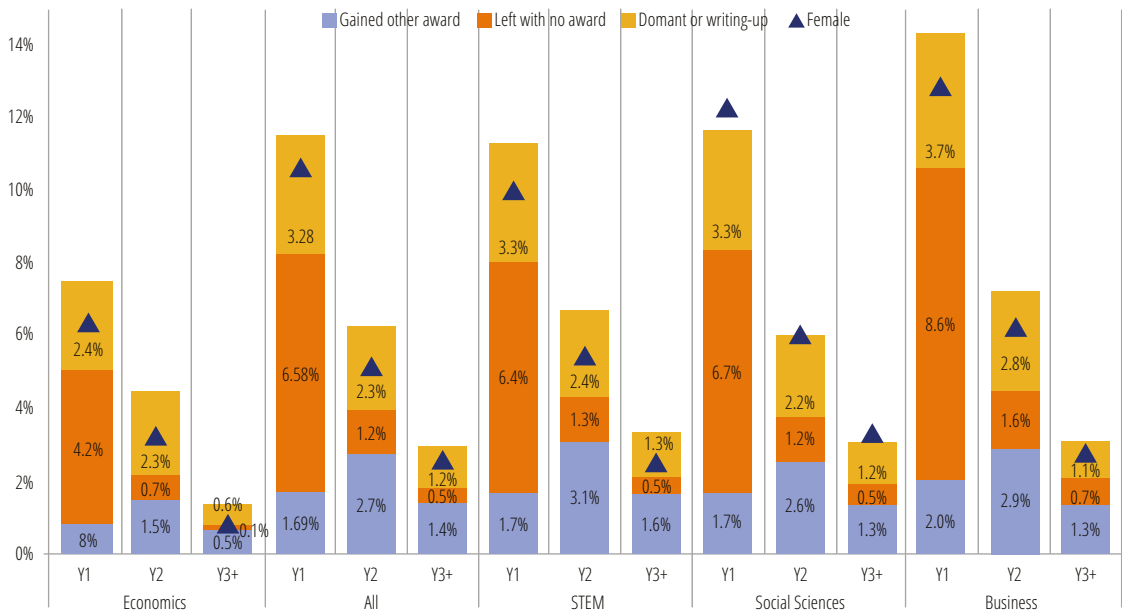
This section examines continuation rates, which refer to the proportion of students who successfully transition from one level of university study to the next (e.g., from year 1 to year 2). For the period under analysis, we have continuation data from 2016/17 to 2019/20. Note that the data for the 2020/21 cohort is released with the academic year 2021/22, once it is possible to match students between the years of data. Students enrolled in a higher education provider in a particular year may achieve one of the following outcomes: (1) continuing at a Higher Education provider; (2) gained intended award or higher; (3) gained another award deemed to be lower than the qualification initially aimed for; (4) left with no award, not continuing into their following year of study; (5) dormant or writing-up. Students falling into categories (3), (4), and (5) are counted as *non-continuing* into higher education.

Figure 5.1 shows the proportion of all students who continue into higher education compared to the same proportion for economics, by year of study. Economics students show a higher continuation rate than the overall student population for all years of study. Year 1 students are less likely to continue in higher education (more likely

to drop out), this is true for economics students, although economics students have a much higher continuation rate than the general student population. Continuation rates are higher for Year 2 and finalist students where, for finalists, not continuing into higher education is equivalent to not achieving the aimed degree. Around 99% of UK-domiciled finalists economics students gained the intended award in 2019/20, compared to around 97% in the general student population. Finally, we observe a slight upward trend in continuation rates for Years 1 and 2 since 2016/17.

Figure 5.2 shows *non-continuation rates* and compares economics students with other subjects, by year of study. The height of the bar indicates the average proportion of students *not continuing* into higher education across the four academic years considered. The percentages within each bar indicate the reason for the lack of continuation. Figure 5.2 confirms the general pattern in the previous figure, showing a very large gap in non-continuation rates between economics and other subjects. Compared to STEM, social sciences, and business studies, economics students are more likely to continue, and the difference is particularly marked in Year 1. However, even for Year 2

Figure 5.2: Non-continuation per year of study



Notes: UK-domiciled undergraduate students (2016/17 – 2020/21)

and finalists, economics shows lower rates of *non-continuation*.

The markers in Figure 5.2 indicates the percentage of female students who do not continue in higher education. In almost every subject and year of study, female students show a lower rate of non-continuation (the only exception to this is social sciences, see the graph).

5.1 Socio-economic background

In Figure 5.3 we examine the gaps in continuation rates by socio-economic background and year of study. Each bar represents the percentage point differences between (a) students from higher socio-economic backgrounds and students from other socio-economic backgrounds, (b) students with parents educated at higher education and not educated at higher education, (c) students from other participation areas and low participation areas, and (d) students who attended private schools and those who attended publicly funded schools.

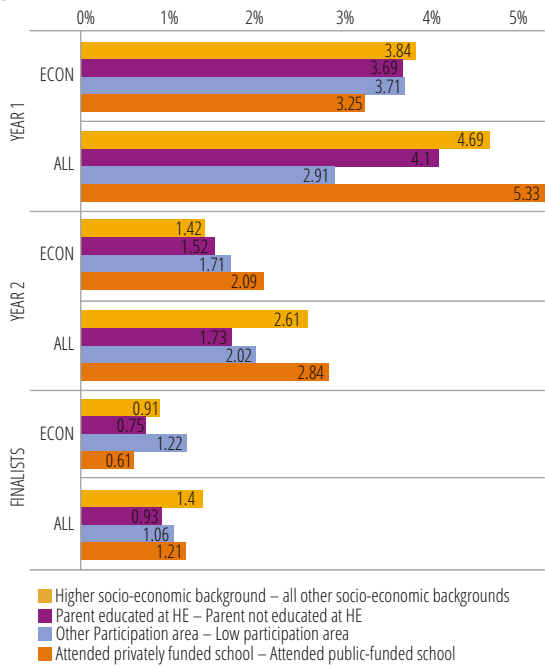
We observe that for all years of study, there are positive socio-economic gaps, indicating that students from more *advantaged* backgrounds have higher continuation rates. For

instance, in Year 1, the continuation rates for economics students from higher socio-economic backgrounds are 3.8 percentage points higher than for economics students from other backgrounds. The gap narrows down to 1.42 percentage points in Year 2 and to less than one percentage point for finalists.

Compared to other subjects, economics students exhibit narrower continuation gaps for all socio-economic indicators across all years. The only exception is for areas for participation in Higher education (other versus low); in Year 1, the gap between students from other participation areas and low participation areas in economics is 3.7 percentage points, but less than 3 percentage points for the overall student population.

For economics students and the overall student population, the continuation gaps for all our socio-economic indicators are narrower in Years 2 and for finalist students. Therefore, the most significant differences in continuation rates by socio-economic background occur in Year 1, where continuation rates for students from less-advantaged backgrounds are much lower. This highlights an important source of pipeline leakage, and further efforts should be made to comprehend the issues at this stage and provide support to students.

Figure 5.3: Continuation per academic year. All students and economics



- Notes:
- UK-domiciled undergraduate students (2016/17 – 2020/21)
 - Horizontal axis shows the percentage points difference across the various socio-economic categories considered.
 - In red we highlight when economics shows a higher gap than the general student population.

5.2 Ethnicity

On average, economics students are more likely to continue in higher education (or gain the intended award for finalist students) compared to the overall student population, regardless of ethnicity. However, continuation rates are not homogeneous across different ethnic groups and these statistics mask significant disparities among them.

Across all academic years, White students have an average continuation rate of 94%, which is two percentage points higher than that of ethnic minority students (92%). The gap is somewhat narrower in economics, where the continuation rate for White students is 96% versus 94.6% for students from ethnic minority groups.

Figure 5.4 displays the gaps in continuation rates for UK-domiciled economics students, by ethnicity and year of study. The graphs show the percentage point gaps

between each ethnic group and the continuation rate for all economics students in the respective year of study. For example, for Year 1, the proportion of White students continuing into higher education is 0.58 percentage points higher than the average continuation rate for all Year 1 economics students (which is 92.51%).

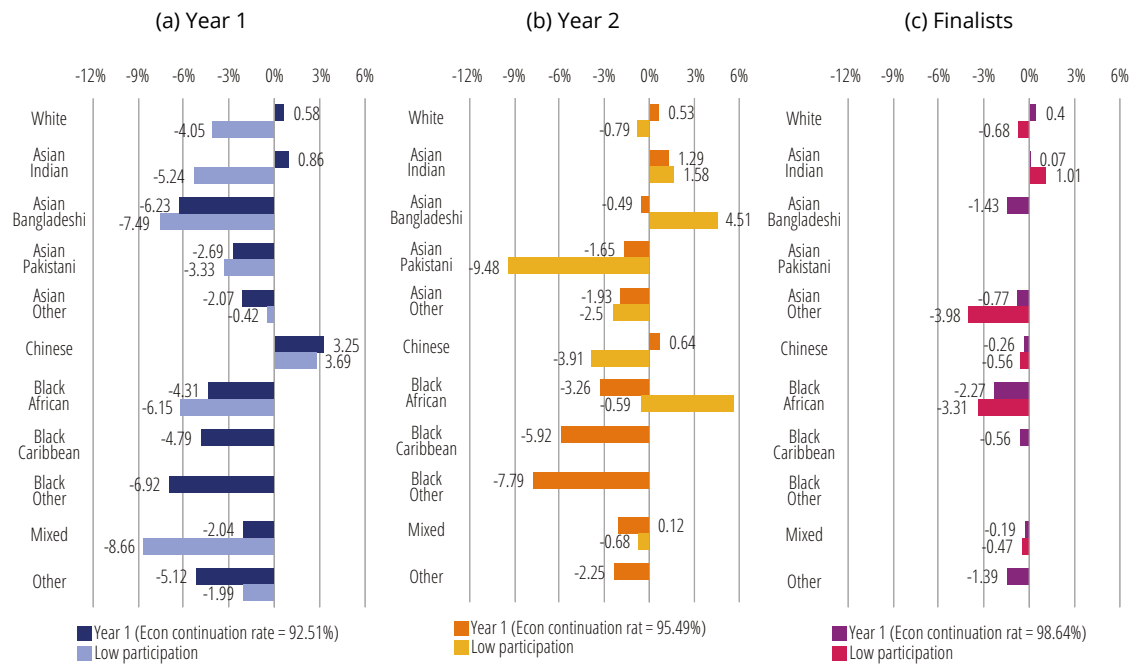
In Year 1, all ethnic groups except Asian Indian and Chinese have lower continuation rates than the average economics student. UK-domiciled students from Black, Asian Bangladeshi, and Asian Pakistani ethnic groups exhibit the greatest continuation gaps in Year 1.

Figure 5.4 also provides the continuation rate gaps for students from low participation areas by ethnic group. While White and Asian Indian students have higher continuation rates overall, these differences are reversed when considering students from low participation areas. Continuation rates for White students from low participation areas are 4.05 percentage points lower than the average economics student in Year 1, and 5.24 percentage points lower for UK-domiciled students of Asian Indian origin (results are not reported for groups with low student numbers).

In Year 2 and for finalist students, the continuation gaps remain consistent, with most ethnic groups showing negative continuation gaps. These gaps are narrower due to higher continuation rates in these years. Among Year 2 and finalist students, economics students from Black ethnic groups have the lowest continuation rates. However, it is worth noting that we do not report statistics for some ethnic groups with less than 25 students studying economics between 2016/17 and 2019/20.

It is important to reiterate that continuation gaps represent significant leaks in the economics pipeline, particularly in Year 1 and to a lesser extent in later years. It is concerning that these continuation gaps are more evident for students from various ethnic minority groups and, without exception, for students from less-advantaged socio-economic backgrounds. Therefore, it is crucial that universities and other organisations reflect on the drivers of this leakage to ensure diversity among economics graduates in the future.

Figure 5.4: Continuation rates: gaps by ethnicity and low participation area in economics



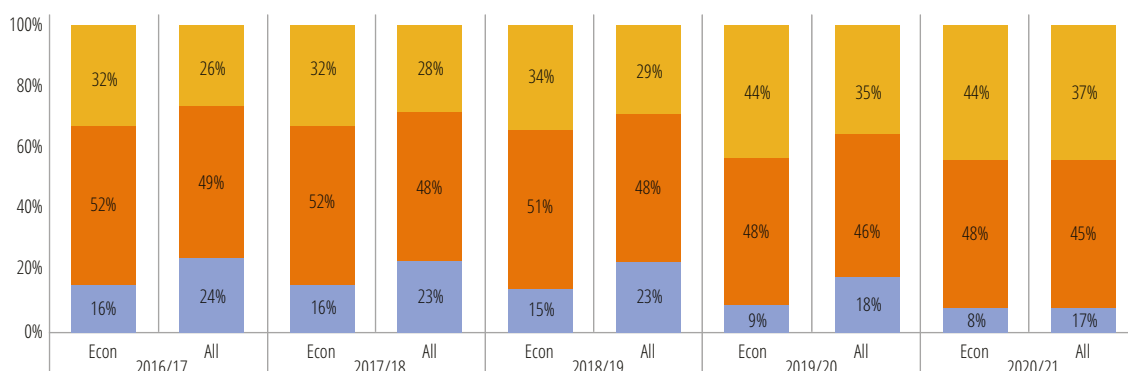
Notes:

- UK-domiciled undergraduate, full-time students (2016/17 – 2019/20).
- Statistics are omitted for groups of less than 25 students.
- There is high variation for some ethnic groups due to low numbers of students in each group.

6

Degree outcomes: Who is awarded a good degree?

Figure 6.1 Degree classification distribution for UK-domiciled students



Notes: - UK-domiciled undergraduate students (2016/17 – 2020/21)

This section focuses on degree awarding outcomes for UK-domiciled students graduating in economics in the academic years 2016/17-2020/21. Degree awarding outcome refers to the final degree classification that students receive upon completion of their studies. The literature that analyses differences in degree awarding outcomes between different groups of students, usually refer to these differences as awarding gaps (or attainment gaps). For instance, the ethnic awarding gap refers to a difference or disparity in degree attainment between different students from different ethnic groups, usually White and ethnic minorities.

Figure 6.1 displays the distribution of degree classifications for both economics and the general UK-domiciled student population, separated by academic year.¹⁹ The distribution of degree classes awarded remained stable up to 2018/19, but there

was an increase in the percentage of first-class degrees for two years affected by COVID-19 for both the overall student population and for economics. The increase was partly due to a decrease in the proportion of upper second-class degrees, and there was an overall increase in the proportion of good degrees awarded during these two years.

Female students are more likely to be awarded a *good* degree in economics than male students. A degree classification of upper second and above is considered a '*good degree*'. In 2020/21, 95% of economics UK-domiciled female students received a good degree, up from 88.2% in 2016/17. In contrast, 92% of male students received a good degree in 2020/21, up from 83% in 2016/17. The proportion of first-class degrees in economics for female students was 35% in 2016/17 and 51% in 2020/21 compared to 31% and 42% for male students, respectively.

19 There are four main degree classifications in the UK Higher Education system: first-class honours degree (1st) usually obtained with an average mark of 70% and above, upper second-class honours degree (2:1, average mark 60-69%), lower second-class honours degree (2:2, average mark 50-59%), a third-class honours degree (3rd, average mark 40-49%). Below 40% students may obtain a non-honours degree or an unclassified degree, depending on the university.

The distribution of good degrees varies across different ethnic groups. In May 2019, Universities UK and the National Union of Students published the report "[Black, Asian and Minority Ethnic Student Attainment at UK Universities: #closingthegap](#)" which

Figure 6.2 Ethnic awarding gaps in economics

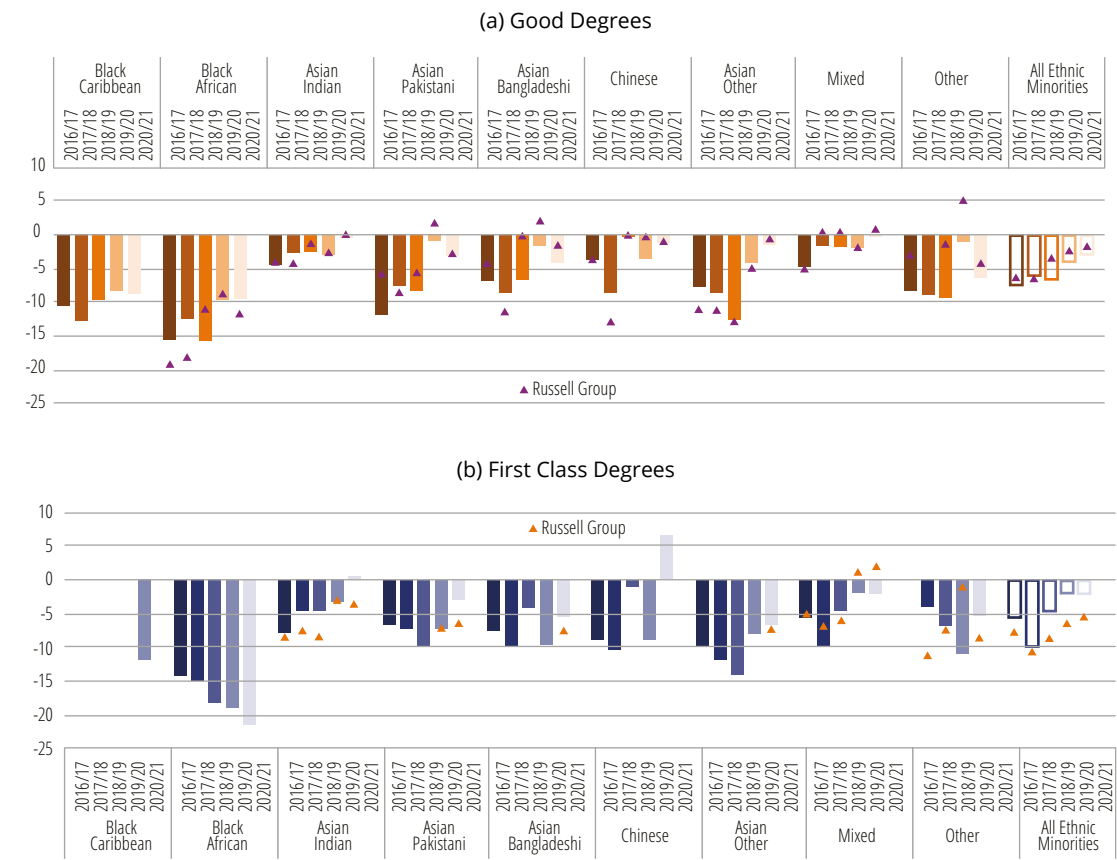
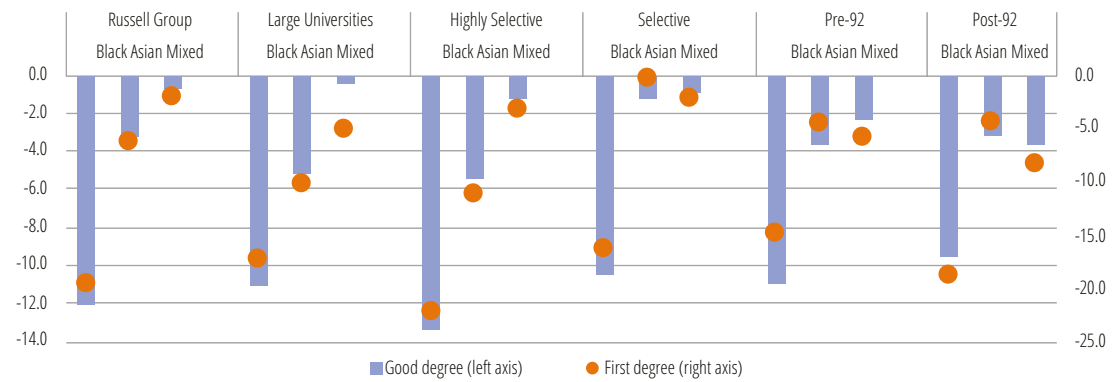


Figure 6.3 Ethnic awarding gaps in economics by university type (all academic years)



highlighted how White students were 13% more likely to get a good degree compared to students from Black, Asian and Minority ethnic backgrounds in 2017/18. Since then, universities have been urged to close ethnic awarding gaps. Some of these efforts may have started to show positive results, as the gap between UK-domiciled White students and students from Black, Asian and Minority Ethnic backgrounds awarded a good degree reduced to 8.8% in 2020/21.²⁰

Figure 6.2 looks at ethnic awarding gaps in economics by academic year. On average, students from ethnic minority groups are less likely than White students to obtain a good degree in economics (Figure 6.2a), although this gap decreased over the years from 8 percentage points in 2016/17 to 3 percentage points in 2020/21.

It is encouraging to see that the increase in good degrees across all academic years is leading to a narrowing of ethnic awarding gaps. However, not all ethnic groups are following the same pattern. In 2016/17, UK-domiciled economics students from Black ethnic minorities had the highest awarding gaps and showed the slowest decrease over the years. Asian Pakistani and Bangladeshi students also showed slow progress. Figure 6.2b shows the awarding gaps for first-class degrees. While the gap between ethnic minorities and White students has decreased in the two academic years affected by COVID-19, it has increased for students of Black African ethnicity.

The markers in Figure 6.2 show ethnic awarding gaps for students in Russell Group universities. Russell Group universities have narrower ethnic awarding gaps in economics and these gaps have decreased over the academic years considered. However, there is significant variation across both ethnic groups and academic years for these universities too. In particular, the ethnic gap for UK-domiciled students from Black African ethnicity is persistently higher in Russell Group universities compared to the full-sector average. These students were around 12 percentage points less likely than White students to be awarded a good degree in

2020/21. When data is not reported for Russell Group institutions, it means that there are fewer than 25 observations for the specific group. This demonstrates the findings in Section 5, where we saw that some ethnic groups are not well-represented in these institutions.

Figure 6.3 shows degree awarding gaps for Black, Asian, and Mixed aggregate ethnic groups, by university categories. Across all university groups, Black students have the largest awarding gap in economics. For good degrees, this is around 12 percentage points in Russell Group institutions and higher in highly selective institutions (the left axis in Figure 6.3). For first-class degrees, the gap is 20 percentage points in both. Even in Post-1992 institutions, the Black awarding gap remains high.

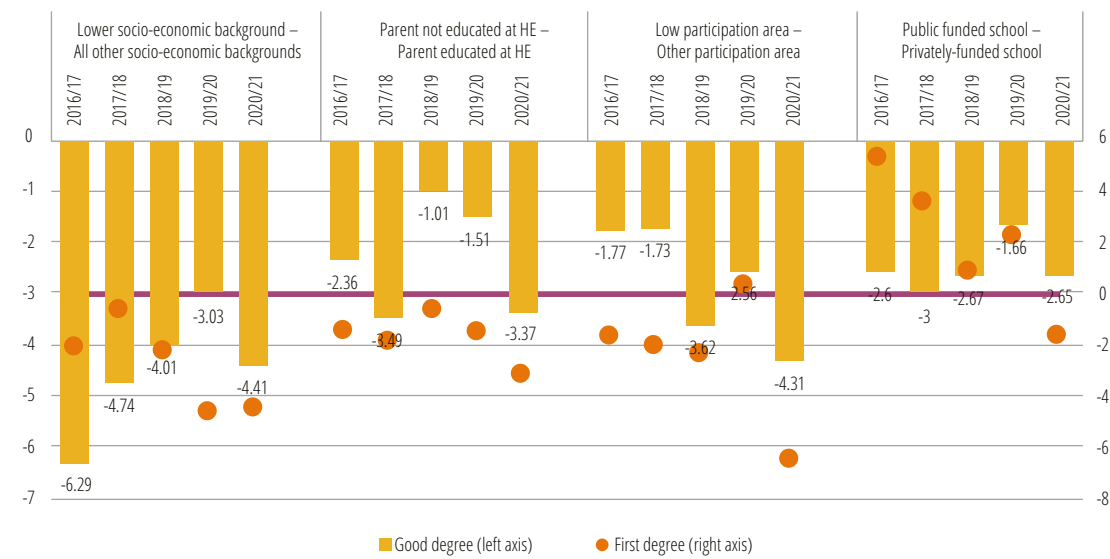
We also observe awarding gaps by socio-economic background. Generally, students from less advantaged backgrounds are less likely to be awarded a good degree in economics as indicated by Figure 6.4 (left-hand side vertical axis). While the gap for first-class degrees narrowed between 2016/17 and 2018/19, it widened in the years affected by COVID-19 (right-hand side vertical axis). It is worth noting that for most of the academic years, the public/private school gap was positive, meaning that, on average, students from public schools were more likely to achieve a first-class degree than students from private schools.

In 2020/21, we observe wider awarding gaps for almost all socio-economic groups, which is consistent with the decreasing proportion of students from low participation areas who achieved a good degree and a first-class degree in the same year. These findings may reflect a broader, heterogeneous impact of COVID-19 on people from different socio-economic backgrounds. Further data in future years will help us to better understand the pandemic's impact on various socio-economic and demographic groups.

In Figure 6.5, we show socio-economic awarding gaps by university classification. The largest gaps are for first-class degrees in Russell Group universities and even larger in highly selective institutions. The results by school attended are mixed.

20 See the Universities UK Report "[Closing ethnicity degree awarding gaps: three years on](#)" (Jul 2022)

Figure 6.4 Degree awarding gaps in economics by socio-economic variables



Notes: UK-domiciled undergraduate finalist students

Figure 6.5 Awarding gaps in economics by socio-economic variables and university type (all academic years)



Notes: UK-domiciled undergraduate finalist students (2016/17-2020/21)

6.1 Who gets a low degree classification?

Degree classification is a critical factor for graduate employment opportunities. Research shows that graduates with good degrees tend to earn higher average salaries compared to those with lower degree classifications, regardless of the university ranking (Britton et al., 2022).²¹ As shown in this section, in economics, the proportion of good degrees awarded is higher than the overall student population, and economics graduates rank among the top earners. Studying economics, therefore, has significant potential for promoting social mobility (Britton et al., 2021).²² However, these potential benefits are not equally distributed among all students, and we find significant relationships between student demographic characteristics and degree classifications.

Figure 6.6 presents results for a Frequency Ratio analysis, which examines the association between various student demographic characteristics and degree classification in economics, with a focus on who is awarded *lower-class degrees* (lower second-class and below). Frequency Ratios, in this context, compare the proportion of graduates from each group awarded lower-class degrees to the proportion of lower degrees in the general economics population. For example, denoting as the frequency ratio associated with students from Black ethnic groups who receive lower-class degrees:

$$FR_{\text{Black}} = \frac{\% \text{ Black econ students receiving lower award}}{\% \text{ All econ students receiving lower award}}$$

When we do not observe any systematic differences, we expect frequency ratios around 1, meaning that both proportions are the same. However, if we notice deviations from 1, this indicates differences between the group of interest and economics as a whole. If the frequency ratio is greater than 1, it suggests a higher likelihood of being awarded a lower degree, while ratios less than 1 indicate a lower probability.

Figure 6.6a presents the ratios based on gender, ethnicity, university classification, and various interactions. The red line represents a ratio of 1. A frequency ratio of less than 1 suggests that UK-domiciled female students are *less likely* to be awarded a lower degree in economics. The 2020/21 bar in the graph shows that the proportion of female students who did not receive a good degree is 0.7 lower than expected if there were no association between degree classification and gender. Conversely, male students are more likely to receive a lower degree classification in 2020/21, with a frequency ratio greater than 1.

Regarding ethnicity, we find a *positive association* between being from a Black or Asian ethnic group and being awarded a lower degree classification.²³ For instance, the frequency ratio for Black ethnic groups indicates that the number of students not awarded a good degree is almost **twice** as much as expected if there were no relationship between degree classification and ethnicity. This association has strengthened in the last two years arguably due to the impact of COVID-19. For students from Asian ethnic groups, the association is positive but lower, just above 1. On the other hand, White students show a reversed association with bars below the red line. The number of White students not awarded a good degree is only 0.82 times the expected value if there were no relationship between degree classification and ethnicity.

Students attending Russell Group universities are less likely to receive a low degree classification, with the number of students from these institutions being 0.8 times what would be expected if there was no association between attending a Russell Group university and degree classification. This trend holds consistently across time and is even more apparent during the pandemic (the last two academic years). Conversely, non-Russell Group institutions show an opposite association (bars above the red line).

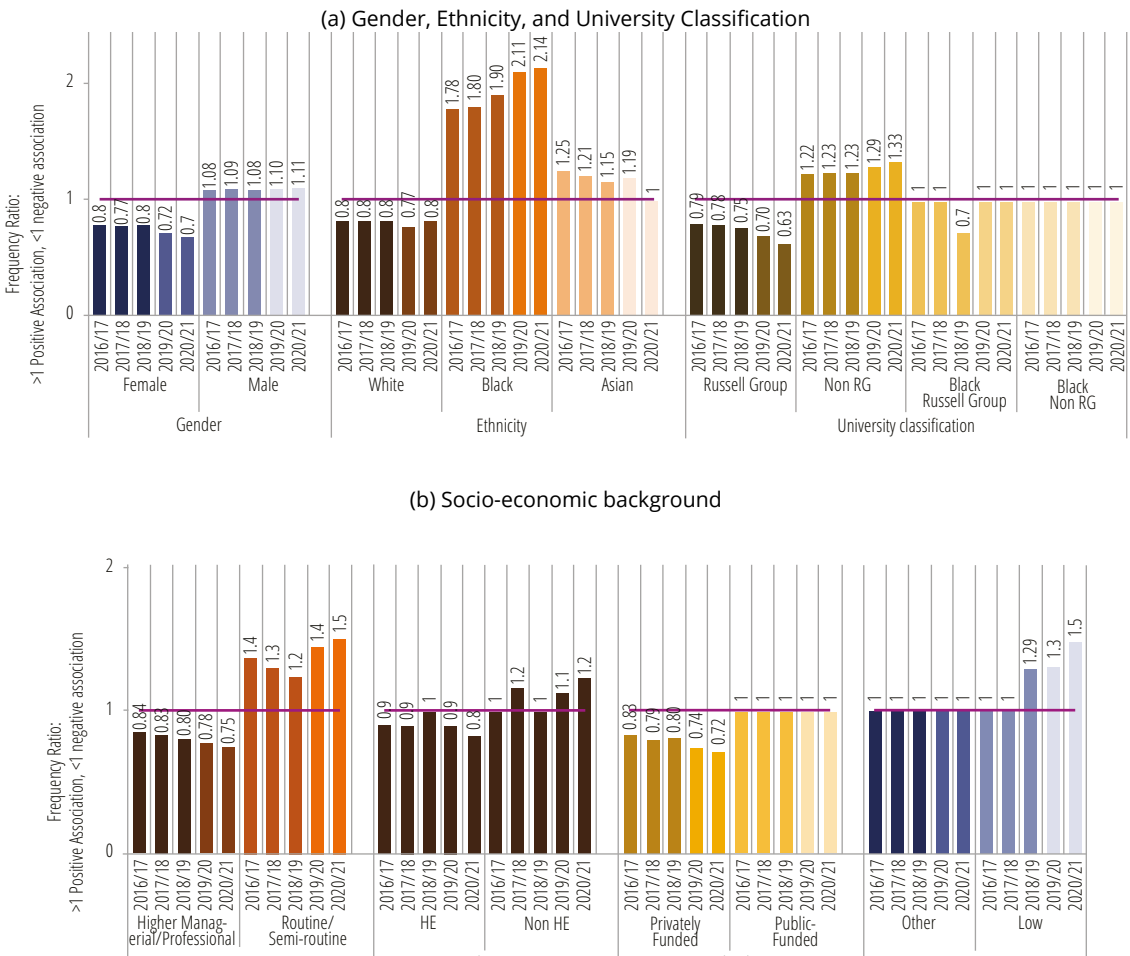
However, focusing only on students from Black ethnic backgrounds (charts on the far right), we observe a striking result when

21 Briton et al., IFS Report “[How much does it pay to get good grades at university?](#)” (20 Apr 2022)

22 Briton et al., IFS Report “[Which university degrees are best for intergenerational mobility?](#)” (24 Nov 2021)

23 Given the very small number of students in some ethnic group, we present the results for ethnicity using aggregate ethnic groups for Black, Asian and Mixed.

Figure 6.6 Lower degree classification



- Notes:
- UK-domiciled undergraduate students
 - Data is pooled for “BAME” classification: Black Caribbean, African and Other are under “Black”, Asian Indian, Pakistani, Bangladeshi, and Other, and Chinese are under Asian.
 - The bars show frequency ratios (FR) for each academic year from 2016/17 to 2020/21, the bordered bars are for the academic years affected by COVID-19.
 - FR compares the actual frequency of not being awarded a good degree and the predicted frequency if there were no association between the characteristic (e.g., gender) and the likelihood to be awarded a lower degree classification (2:2 or below). The red line is the no association line (FR=0). Above this line, the bar indicates a positive association, i.e., the characteristic under consideration increases the chance to be awarded a lower degree class (FR>1). A bar below the red line indicates a negative association, i.e., having the specific characteristic decreases the chance of being awarded a lower degree class (FR<1).

considering the effect of Russell Group attendance solely for these students. We see *no association* between attending a Russell Group university and receiving a low degree classification (for both). This indicates that Black students attending Russell Group universities are not less likely to be awarded a lower degree classification with respect to Black students from non-Russell Group institutions. In other words, Black students are more likely to receive a lower

degree classification regardless of the university they attend.

In Figure 6.6b, the Frequency Ratio methodology is applied to analyse the relationship socio-economic variables and lower degree classification. The results show that managerial and professional occupations are associated with a lower probability of being awarded a low degree classification, while students from routine and semi-routine

occupations show the opposite association (all bars above the red line). This association remains consistent across time and becomes more pronounced during the pandemic. Students who graduated in 2020/21 with parents in routine jobs are twice as likely as the average economics student to receive a lower degree classification. The association between parental education and degree classification is less clear; with no discerning association between the two variables in some years. Limited evidence suggests that being from a publicly funded school is not associated with degree classification (bars for all academic years equal to 1), while students from private schools are *less likely* to receive a lower-class degree (bars below the red line).

Finally, after the academic year 2017/18, students from low participation neighbourhoods were more likely than average to receive a lower degree classification (last three bars above the red line), while there is no clear association between being from a non-low participation area and degree classification.

Overall, these demonstrate significant differences in degree classification across various demographic groups, with some groups being systematically awarded lower degree classifications in economics than others.

6.2 Conditional probabilities of being awarded a good degree

We now examine the estimated probability of obtaining a *good degree* while controlling for different demographic characteristics. As our previous analysis has suggested that the relationship between demographic characteristics and degree awarded varies across time, we calculate these probabilities for three student cohorts:²⁴

1. Those who entered higher education on or before 2014/15 and graduated in 2016/17
2. Those who entered higher education on or before 2016/17 and graduated in 2018/19

3. Those who entered higher education on or before 2018/19 and graduated in 2020/21

We present the estimated impact of the statistically significant factors on the average probability of achieving a good degree in Appendix A2. Our findings indicate that certain factors, such as being a female student and attending a Russell Group University, have a consistently positive effect on degree outcomes across time, although the COVID-19 pandemic may have reduced the positive effect for female students.

On the other hand, students from Black ethnic groups continue to experience the most significant negative impact on degree outcomes. We observe that the effect of ethnicity on students from both Black and Asian ethnic groups has reduced during COVID-19, which could be due to the measures taken to mitigate the pandemic disruption. However, we caution against interpreting these coefficients narrowly without considering other covariates.

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Black students are more likely to receive a lower degree classification regardless of the university they attend

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In Figure 6.7, we present estimated conditional probabilities for two groups of students used in Section 3.3, who have taken A-levels in economics and maths, showing their likelihood of being awarded a good degree and a first-class degree.²⁵ The bars in the figure indicate the probabilities for all students, while the markers show the probabilities for those attending Russell Group universities. Our findings highlight that the probability of being awarded a degree classification of 2:1 or higher has risen over time and is consistently higher for students at Russell Group universities across all academic years.

24 Notice that these cohorts have been affected by various changes and shocks in the UK Higher Education system. In 2014/15 the university student cap increased to 30k students, and it was completely removed in 2015/16. Those entering HE in 2018/19 and graduating in 2020/21 faced three terms of COVID-19 disruption.

25 A standard Logit model, with robust standard errors was used to calculate these probabilities. See explanation in Appendix A2.

Figure 6.7 Conditional probabilities by degree class

**Notes:**

- Male students with A-Levels in economics and maths from public schools. Female students have a higher probability across all the groups and academic years for both Russell Group and non-Russell Group universities.
- We use A-Levels in economics and maths to add some basic control for student educational background. The probabilities of being awarded a good degree are not affected by A-Levels in early years, but these have become more relevant in recent academic years, i.e., having A-Levels in economics and maths slightly increased the probability of being awarded a good degree for all ethnic groups and socio-economic backgrounds in 2020/21.
- Group 1 are students from lower socio-economic backgrounds, in particular students from low participation areas, with parents not educated in higher education working routine jobs.
- Group 2 are from higher socio-economic backgrounds, in particular students not from low participation areas, with parents educated at higher education level, working in managerial or professional occupations.

Confirming our earlier findings, Figure 6.7a shows that students from lower socio-economic backgrounds (Group 1) are less likely to receive a good degree than those from higher socio-economic backgrounds (Group 2) in each academic year. Controlling for socio-economic background, our estimates suggest that male students from Black ethnic groups have the lowest probability of being awarded a good degree. Although this probability has increased from 62% in 2016/17 (70% for Russell Group universities) to 74% in 2020/21 (82% in Russell Group universities), the gap between Black and White students remains wide. Indeed, the difference in the estimated probability of achieving a good degree between White and Black students in 2020/21 is 8 percentage points for students from higher socio-economic background (6 for Russell Group universities) and 13 percentage points for students from lower socio-economic backgrounds (10 for Russell Group). In contrast, the estimated gap between White and Asian male students disappeared in 2020/21 across the same socio-economic background (previously, it was positive).

Figure 6.6b displays the probabilities of being awarded a first-class degree in economics. We observe similar patterns, where the estimated probability of receiving a first-class degree has increased over time for both Russell Group and non-Russell Group universities. However, the probability of achieving a first-class degree is lower for students at Russell Group universities across all groups and ethnicities. Our estimates also reveal that students from lower socio-economic backgrounds are less likely to be awarded a first-class degree (bars for Group 1 lower than bars for Group 2 across all ethnicities). Students from Asian backgrounds are also less likely to be awarded a first-class degree, although the gap with White students has decreased over time.

Students from Black ethnic groups have the lowest probability to be awarded a first-class degree in both Russell Group and non-Russell Group universities. As shown in Figure 6.6, only 20% of Black students from lower socio-economic backgrounds in Russell Group universities were awarded a first-class degree in 2020/21. In comparison, 39% of White students from the same socio-economic background and 49% of White students from wealthier-socio economic backgrounds were awarded a first-class degree in Russell Group universities the same academic year. The ethnic gap between White and Black students in 2020/21 increased compared to 2016/17, from 17 percentage points for Group 2 in Russell Group universities (16 percentage points for non-Russell Group universities) to 21 percentage points in 2020/21 for both Russell Group and non-Russell Group universities.

The findings in this section highlight serious issues with the economics pipeline in relation to ethnicity and socio-economic background. Despite a higher proportion of students from ethnic minorities studying economics, they are less likely to receive good degrees, which is concerning, particularly for Black students. In 2020/21, 1 in 10 Black students were not awarded an upper-second class or above in economics, compared to only 1 in 20 for White and Asian students. Moreover, less than 1 in 5 Black male students from lower socio-economic backgrounds in Russell Group universities received a first-class degree, compared to 1 in 3 White male students from a similar background. The probability of being awarded a good degree (and a first-class degree) for students from low socio-economic backgrounds are, in fact, lower across all ethnic groups. These outcomes significantly impact students' potential to access good graduate programmes, secure well-paid jobs, and become professional economists, thereby reducing diversity down the economic pipeline.

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Students from lower socio-economic backgrounds are less likely to receive a good degree in economics than those from higher socio-economic backgrounds

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Conclusion: socio-economic factors matter to increase diversity in economics

This report highlights the lack of socio-economic diversity in economics, as well as gender imbalances. Students from lower socio-economic backgrounds are less likely to choose economics at university and those who do, are more likely to drop out. Furthermore, regardless of gender or ethnicity, students from lower socio-economic backgrounds are more likely to be awarded a lower degree classification. Addressing these issues is crucial for promoting diversity and ensuring that the economics profession is more representative of the wider population.

In terms of gender representation, although there are relatively few women who choose to study economics, those who do, tend to perform well. Our findings indicate that female students are less likely to drop out and are more likely to be awarded a “good degree” (2:1 or above) than male students from the same socio-economic background and ethnicity. Therefore, the lack of diversity of female economists in senior roles cannot be justified by their performance at university. It is responsibility of employers to address this issue. Increasing female representation among senior economists can help break the image of economics as a male-dominated discipline, which can help to increase female role models and help to attract more girls into economics (Porter and Serra, 2020).

The lack of flexibility in economics degrees may impact who can study economics. Currently, there are very few universities offering part-time degrees in economics. While it is uncertain whether an increase in part-time offers would be met by high demand, we do know that part-time degrees tend to attract more female students, mature students, and students

from lower socio-economic backgrounds, therefore may contribute to increase diversity in the discipline.

The current availability of economics degrees across UK universities may be contributing to a lack of diversity among economics students at entry level. There is a disproportionate number of universities offering economics in the southern regions of England, and economics students are concentrated in the South and near London. While this concentration may partly explain the success in attracting students from minority ethnic groups who are more likely to live in the Greater London area and nearby regions such as the Midlands, it also adds to the challenge of attracting students from lower socio-economic backgrounds who are less likely to travel long distances to attend university and are more likely to commute from home. The popularity of the discipline in the south may be linked to London’s reputation as a global financial hub with high demand for economists and high salaries. However, this perception of economics as mainly about finance and money limits its appeal to a more diverse range of students. Increasing awareness of the range of career possibilities for economics graduates could help attract a more diverse student body. National-level programmes such as [Discover Economics](#) are helping to increase interest in the subject and change the perception of the discipline among high-school students from under-represented groups, and universities could collaborate to expand the reach of these initiatives.

While the government's efforts to widen participation in higher education have had some success,²⁶ these initiatives have only partially addressed the challenges facing economics education. To make meaningful progress, there is a need for more coordinated action by departments of economics, universities, and policy-makers to address structural issues. It is also crucial to consider the impact of widening participation strategies at the discipline level and across institutions. Notably, less selective universities outside the Russell Group are currently leading the way in widening participation by socio-economic background.

This report also finds that economics has a diversity retention problem. Our findings on ethnic diversity leakages in this part of the pipeline are concerning. Students from Black, Bangladeshi, and Pakistani ethnic groups, who are already under-represented in economics at entry, are more likely to drop out after Year 1, especially if they come from low participation neighbourhoods.

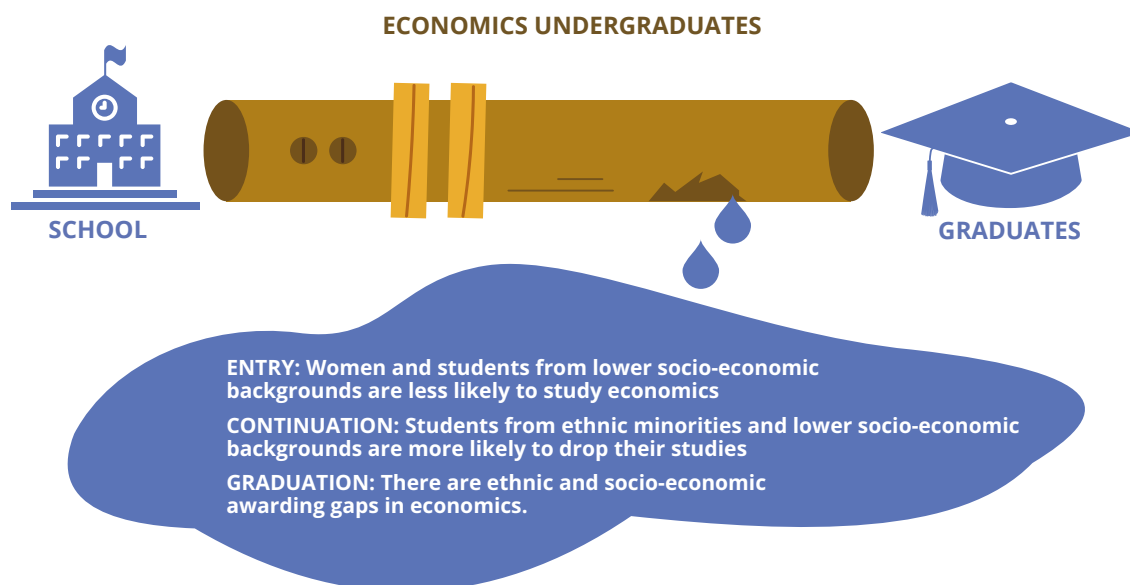
Students from all ethnic minority groups who do graduate in economics are less likely to receive upper-second- or first-class degrees. The gap in the percentage of first-class degrees between White and Black students has increased over the years. In 2016/17, the gap was 16 percent-

age points; it was 20 in 2018/19, and 21 in 2020/21. For example, a Black student from a lower socio-economic background has a 22% probability of receiving a first-class degree, while a White student with the same educational and socio-economic background has a 41% probability, up to 51% for a White student from the same educational background but higher socio-economic background.

This may suggest issues with the academic environment and the need for universities to redesign academic support and practices. Students from under-represented groups may find it more difficult to fit into the academic environment which can create a lack of sense of belonging. This can lead to decreased motivation, disengagement, and lower academic performance. Therefore, it is not enough to simply bring in diversity; economics departments must also work to create inclusive learning environments where this diversity can thrive. This can involve rethinking the design of the curriculum, teaching methods, student support services, and assessment structure, among others to ensure that all economics students have a fulfilling academic experience.

We also find that Russell Group universities do worse in terms of ethnic and socio-economic diversity and retention. Students from ethnic minority groups and lower socio-economic backgrounds are less likely to study in a Russell Group university. Less than 7% of economics students

26 See UK Government official statistics "[Widening participation in higher education: 2022](#)", 28 July 2022.



in Russell Group universities are from a lower socio-economic background, and 4% are from an area with low participation in higher education. Black students from any socio-economic background or gender are less likely to study in Russell Group universities and they are less likely to be awarded a good degree classification (regardless of the institution attended).

The under-representation of students from ethnic minorities and lower socio-economic backgrounds in Russell Group universities can perpetuate social inequalities and hinder social mobility. This is because Russell Group universities are often perceived as more prestigious and research-intensive by employers who use university rankings as an indicator of students' level of preparation. As a result, Russell Group graduates may have access to better employment opportunities. Furthermore, students in Russell Group universities are more likely to be awarded a good degree (although less likely to be awarded a first-class degree). Research suggests that a good degree is a key driver of future earnings, and lower degree classes (2:2 and below) are associated with lower earnings for economics graduates (Britton et al., 2022). These findings have clear implications for the latter stages of the economics pipeline and the ethnic and socio-economic diversity of academic and professional economists.

To increase diversity, economics departments at Russell Group universities could strengthen their ties with local communities and schools, and actively promote opportunities for students to study economics close to home. This can help to reduce the financial burden associated with attending university. Students from ethnic groups and lower socio-economic backgrounds are more likely to attend local universities, closer to home. As the current cost-of-living crisis continues to affect students, universities and the government must work together to ensure that students from all backgrounds have access to the resources they need to succeed in their studies.²⁷ Without inter-

vention, there is a risk of an increase in student dropouts and further elitism in economics departments.

The limited availability of economics degrees outside of Russell Group institutions may worsen this issue and contribute to making economics an elitist subject. This trend was first noticed by Johnston et al. (2014) and our findings suggest that it has not improved in recent years. This cannot be attributed to a lack of interest in economics among students, but rather to the rapid expansion of economics degrees in Russell Group universities, which has been further exacerbated during the COVID-19 pandemic.

Employers of economics graduates must acknowledge and address the inequalities embedded in the educational system highlighted in this report. It is crucial that employers' recruitment processes do not exacerbate existing disparities and instead support and promote students from under-represented groups. Employers have a role to play in ensuring that the economics pipeline is not subject to further leakages and that all graduates have an equal chance to succeed, regardless of their socio-economic background, gender, or ethnic identity.

It is evident that structural barriers and cultural norms within the discipline of economics are holding back under-represented groups. To effectively increase diversity in economics, there must be a strong and unwavering commitment by the government, universities, employers, and the current community of economists to address these challenges and ensure that under-represented groups are given real opportunities to succeed in the discipline.

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It is not enough to simply bring in diversity; economics departments must also work to create inclusive learning environments where this diversity can thrive

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27 Look at the Sutton Trust Report “Home and Away” (2018) by Donnelly and Gamsu, in which the authors propose some recommendations to support students who commute from home to university.

8

References

Advani, A., S. Sen, R. Warwick (2021) “[A Level Economics is a gateway to the economics profession](#)” Institute of Fiscal Studies comment, 14 Jan 2021. Available at: <https://ifs.org.uk/articles/level-economics-gateway-economics-profession> (last accessed 6 January 2023)

Advani, A., S. Sen, R. Warwick (2020) Ethnic diversity in UK economics. Royal Economic Society and Institute for Fiscal Studies Report, 26 Oct 2020. Available at: <https://ifs.org.uk/publications/ethnic-diversity-uk-economics> (last accessed 6 January 2023)

Bateman, V., D. K. Gamage, X. Liu, E. Hengel (2021) [The Gender Imbalance in UK Economics](#). Royal Economic Society Women’s Committee Silver Anniversary Report. Available at <https://res.org.uk/the-gender-imbalance-in-uk-economics/> (last accessed 28 December 2022)

Britton, J., I. Walker, I., B. Waltmann, Y. Zhu (2022) [How much does it pay to get good grades at university?](#) Institute for Fiscal Studies Research Report, April 2022. Available at: https://ifs.org.uk/sites/default/files/output_url_files/How-much-does-it-pay-to-get-good-grades-at-university.pdf (last accessed 28 December 2022)

Britton, J., E. Drayton, L. van der Erve (2021) Which university degrees are best for intergenerational mobility. Institute for Fiscal Studies Report, 24 November 2021. Available at: <https://ifs.org.uk/publications/which-university-degrees-are-best-intergenerational-mobility> (last accessed 28 December 2022)

Donnelly, M., and M. Gamsu (2018) Home and Away. Social ethnic and spatial inequalities in student mobility. The Sutton Trust, February 2018. Available at: https://www.suttontrust.com/wp-content/uploads/2019/12/Home_and_away_FINAL.pdf (last accessed 17 February 2023)

Crawford, C, N. M. Davies, and S. Smith (2018), “[Why do so few women study economics? Evidence from England](#)”. Royal Economic Society. Available at: <https://www.res.org.uk/resources-page/why-do-so-few-women-study-economics--2018-pdf.html> (last accessed 29 November 2022)

Finn, P., R. Cinpoes, and E. Hill (2022) The impact of COVID-29 on A-Levels since 2020, and what it means for higher education in 2022/23. LSE British Politics and Policy. Available at <https://blogs.lse.ac.uk/politicsandpolicy/impact-of-covid19-on-A-Levels/> (last accessed 6 January 2023).

Griffith, R., S. Smith, A. Advani (2019) [Economics in the UK has a diversity problem that starts in schools and colleges](#). VOXeu Column, 15 October 2019. Available at <https://cepr.org/voxeu/columns/economics-uk-has-diversity-problem-starts-schools-and-colleges> (last accessed 28 December 2022)

Johnston, J., A., Reeves, and S. Talbot (2014) “Has Economics become an elite subject for elite UK universities?” *Oxford Review of Education*, Vol. 40 N. 5, pp. 590-609.

Porter, C., and D. Serra (2020) “Gender Differences in the Choice of Major: The Importance of Female Role Models.” *American Economic Journal: Applied Economics*, 12 (3): 226-54.

Schultz, R. and A. Stansbury (2022) “[Socioeconomic diversity of economics PhDs](#),” [Working Paper Series](#) WP4-22, Peterson Institute for International Economics. Available at <https://ideas.repec.org/s/iie/wpaper.html>

Science and Technology Committee (2012). Second Report: Higher Education in Science, Technology, Engineering and Mathematics (STEM) subjects. UK House of Lords. Available at <https://publications.parliament.uk/pa/ld201213/ldselect/ldsctech/37/3702.htm> (last accessed 28 December 2022)

Scottish Funding Council (2018). Proposed STEM Status of HECoS Subjects. Available at http://www.sfc.ac.uk/web/FILES/guidance_sfcgd212019/HECOS_STEM_Definition.pdf (last accessed 21 December 2022)

UK Statistics Authority (2022) Schools, pupils and their characteristics. Academic Year 2021/22. National Statistics, 9 June 2022. Available at <https://explore-education-statistics.service.gov.uk/find-statistics/school-pupils-and-their-characteristics> (last accessed 6 January 2023).

Universities UK (2022) [Closing ethnicity degree awarding gaps: three years on](#). Universities UK Report, July 2022. Available at <https://www.universitiesuk.ac.uk/sites/default/files/uploads/Reports/closing-the-gap-three-years-on.pdf> (last accessed 28 December 2022)

Appendix: Data and Technical details

A1. Data

This report uses Student Record data from the UK Higher Education Statistics Agency (HESA) for the academic years 2016/17 to 2020/21. This includes a range of information on all students enrolled in a course in an UK university including details of their institution, course, education on entry, and background. For this report, we focus on undergraduate students and,²⁸ unless otherwise specified, owing to completeness of information, we focus on UK-domiciled students registered for a full-time degree.²⁹

HESA data counts students in terms of “instances”. An *instance* refers to a particular student/course combination. One student may relate to more than one instance, for instance students enrolled in a joint degree in two subjects, allocating equal time to both subjects would appear as two instances in the data, weighted 0.5 in each instance. Therefore, if a student is enrolled in a joint degree with economics as one of the subjects and appears as an instance for economics, even if the weight is less than 1, they will be considered as an economics student at the university for the purpose of the report.

Individual subjects (e.g., economics) and subject grouping classifications (e.g., social sciences) use the HESA [Common Aggregation Hierarchy \(CAH\)](#). Economics corresponds to the CAH Level 2 “Economics” (code CAH15-02). Other subjects used in this report for comparison are

“Business and Management” (CAH17-01), “Mathematical Sciences” (CAH09-01), “Engineering” (CAH10-01), “Computing” (CAH11-01), “Politics” (CAH15-03), “Law” (CAH16-01). Subject group corresponding to the CAH Level 1 “Social Sciences” (code CAH15).

We also use STEM (Science, Technology, Engineering and Maths) as a subject group, though it should be noted that there is not an official definition of which subjects make up STEM—Science, Technology, Engineering and Maths. As a result, for this study, we generate a STEM identifier based upon published and publicly accessible STEM classification for, first, the Joint Academic Coding System (JACS) subject classification prior to 2019/20 and, second, the Higher Education Classification of Subjects (HECoS) in 2020/21. Under the JACS regime, STEM subjects were classified as all of those under subject areas 1 to 8 (A, B, C, D, F, G, H, I, J, and K), confirmed in the UK House of Lords Science and Technology Committee’s second report.³⁰ STEM classification under the HECoS regime was based upon the Scottish Funding Council’s 2018 STEM classification for (then) proposed HECoS subject codes.³¹

We build on previous studies by looking at diversity in terms of self-reported sex. In this report we focus on statistics only for male and female students due to the very small number of observations outside these two groups: only 0.14% of

28 The HESA data utilises the term ‘first-degree’ to describe undergraduate degrees (see here: <https://www.hesa.ac.uk/support/definitions-standards>), to differentiate these from higher degrees such as Taught Postgraduates or Doctorates. For the avoidance of confusion between degree type and degree classification, we use the term ‘undergraduate degree’ instead of ‘first degree’.

29 Full details on socioeconomic background and ethnicity are not recorded for overseas students.

30 Science and Technology Committee (2012). Second Report: Higher Education in Science, Technology, Engineering and Mathematics (STEM) subjects. UK House of Lords [Online, accessed 21st December 2022]. Available from: <https://publications.parliament.uk/pa/ld201213/ldselect/ldsctech/37/3702.htm>

31 Scottish Funding Council (2018). Proposed STEM Status of HECoS Subjects. [Online, accessed 21st December 2022]. Available from: http://www.sfc.ac.uk/web/FILES/guidance_sfcgd212019/HECOS_STEM_Definition.pdf

students and 0.08% of economics students do not report their sex as either male or female.³²

Students with permanent address in the UK are required to report their ethnic origin, using the coding from the Office for National Statistics. The ethnic category groupings used are: White, Black, Asian, Mixed, Other, and unknown/not applicable. The BAME acronym which stands for ‘Black, Asian, and Minority Ethnic’, is commonly used as a catch-all term to classify non-white British individuals by grouping various ethnic minority groups under a single banner. However, the use of “BAME” is not without issues as this can, notably, disguise significant differences between the experiences and outcomes of some ethnic groups and may exclude some ethnic minority groups that also face specific disparities.

Consequently, throughout this study, we avoid using BAME acronym as much as possible, and instead refer to students’ self-reported ethnic origin, which is broadly categorised as Asian, Black, Mixed and Other.³³ Additionally, where relevant and sample sizes permit, we present even more disaggregated ethnic groups to emphasise the differences that occur even within these broad groups.

There is not a single variable in the HESA data that can fully capture socio-economic background—for this reason, we use more than one variable to capture this. *Household social class*, as measured by the National Statistics Socio-Economics Classification, NS-SEC uses the highest occupation class of the parent(s), step-parent(s) or guardian(s) who earns the most (for students under 21 at the start of their course). These are based on eight descending classes from “higher managerial and

professional occupations” to “never worked and long-term unemployed”.³⁴

In this work, we refer to “*higher socio-economic background*” to the combination of the first two classes “higher managerial and professional occupations” and “lower managerial and professional occupations”. A second variable relating to familial background is *Parental Education* which considers the response to “Do any of your parents (natural parents, adoptive parents, step-parents, or guardians) have any higher education qualifications? (Answers: yes, no, don’t know, information refused) in the pre-admission UCAS questionnaire which students complete.

A second set of variables broadly regards the characteristics of students’ educational background; we look at whether students attended state schools/colleges (all schools and colleges that are not classed as independent and are publicly funded), and whether students come from low-participation (in HE) neighbourhoods (POLAR4). POLAR4 classifies local areas in five groups (quintiles) across the UK based on the proportion of young people who enter higher education aged 18 or 19. In this work, we classify individuals in quantile one (the lowest rate of participation) as coming from ‘low participation’ neighbourhoods and use this to compare economics with other disciplines. This is not a perfect measure: it is based on 2011 census data that may be out of date in areas that have gone through rapid social change, it is based on old university admissions data, and disadvantages students domiciled in London where only 1.3% of areas are classified in quantile one.

While not of these measures taken individually can tell us the full story of the (lack of) socio-economic diversity in economics, we believe that considering these together, we can have a fair picture of the issues with this aspect of diversity in the discipline.

Finally, the HESA data contains information on the geographical origin of UK-domiciled students through the inclusion of the first

32 HESA entries for sex are *Female*, *Male*, and *Other*. More information on sex identifier: https://www.hesa.ac.uk/collection/student/datafutures/a/student_sexid. In more recent times, HESA also collects data on sexual orientation, but we did not have access to this data for this with report, but hope to be able to look into this in the future.

33 There are limitations with this approach too, many due to how the data is collected. In almost every instance, *ethnic minority groups* and BAME are the same groups due to how the data is collected using specific ethnic category groupings.

34 See full explanation of these classifications by the Office for National Statistics: <https://webarchive.nationalarchives.gov.uk/ukgwa/20160106042025/http://www.ons.gov.uk/ons/guide-method/classifications/current-standard-classifications/soc2010/soc2010-volume-3-ns-sec-rebased-on-soc2010-user-manual/index.html>

part of the postcode of their home address, known as the ‘Outward Code’. Outward Codes do not correspond to a specific location but, rather, represent all postcodes which share the same outward code, where each postcode corresponds to a recognised set of 6-digit UK Northings and Eastings which identify UK locations to the nearest square metre. Given this information, for each student, an approximate home location was established using an unweighted mean average of the Northing/Easting coordinates of all constituent postcodes within their home Outward Code.

Although imprecise, this information does allow the estimation and inclusion of several geographical and spatial considerations in this report: the spatial distribution of economics students home addresses is considered, particularly in the context of spatial patterns and whether we observe associations between particular regions and the probability of studying economics (we do). We build on the above in the analysis of the average distance travelled to universities by different groups of students, and in the analysis of whether we observe systematic differences between these groups (we also do). This line of investigation is supported by a spatial analysis of the location of universities which offer dedicated degrees in economics.

Research using HESA data must comply with its Standard Rounding Methodology, further details can be found on [HESA website](https://www.hesa.ac.uk/collection/c21051). A full description of the HESA data used in this report can be found on the HESA website: <https://www.hesa.ac.uk/collection/c21051>.

A2. Estimated Probabilities

Section 3.3 examines the estimated probability of different student groups studying economics at the university, with the condition that they are undertaking university studies (since the data only includes undergraduate students at university). These probabilities were estimated using a standard Logit model with robust standard errors and probability weights based on the weightings applied by HESA to the data (see Appendix A1).³⁵

35 Alternative estimation methods, including the Scobit model (skewed logistic regression) were tested but not found to produce better fitting results than the favoured Logit approach.

The model specification featured a number of categorical, non-interacted variables. The decision not to include interactions between variables was pragmatic, given the underrepresentation of some groups. Granular modelling would have resulted in very few or no individuals in some interacted groups. The same rationale was applied to the aggregation of some ethnicities and socio-economic backgrounds.

Additionally, students with over 128 UCAS Tariff Points were the only ones considered³⁶. Since many economics programmes at universities are selective, especially in Russell Group universities, this criterion was implemented to ensure that the analysis focused on students who could study economics at university, rather than all students, which would have underestimated all estimated probabilities.

Probability of a higher degree classification

Section 6.2 uses the same model specification as above to estimate probabilities of students being awarded a good degree (2:1 or above) based upon individual characteristics for the 2016/17, 2018/19 and 2020/21 cohorts. Again, independent variables are included in an un-interacted form to avoid excess granularity and empty or sparsely populated groups.

Table A2.1 reports the estimated differential effect of the statistically relevant factors on the average probability of gaining a good degree.

Each of the effects described in Table A2.1 are computed for an average student (i.e., the effect of the factor was computed irrespective of any other specific characteristic of the student). However, these differential effects may have a different impact depending on some other relevant specific characteristic.

36 UCAS Tariff points translate students qualifications and grades into a numerical value. There are many qualifications that may grant UCAS points. 128 UCAS Tariff points are equivalent to 3 A-levels with grades ABB, but there are many combinations that can achieve this result. For more information on UCAS Tariff points, see <https://www.ucas.com/undergraduate/what-and-where-study/entry-requirements/ucas-tariff-points>

For all categories of students, the probability of being awarded a 2:1 or higher has increased over time, particularly for those students with A-Levels in Economics and Maths, belonging to group 2, but the

measures in place to mitigate the pandemic disruption seemed to have comparatively increased the chances of those students in non-Russel Group institutions.

Table A2.1 Average differential effect of being awarded a good degree

Average differential effect	2016/17	2018/19	2020/21
Negative effects			
Black vs White	-0.13	-0.13	-0.08
Asian vs White	-0.06	-0.05	0.00
Lower vs Higher socio-economic background	-0.05	-0.03*	-0.02*
No A-Levels vs both econ and maths	-0.04*	-0.07	0.00
No A-levels	0.00	-0.03*	-0.03
A-level in econ vs both A-levels	0.00	-0.05	0.00
Age of entry: 21-24 vs 18-20	0.00	0.00	-0.05
Parent No HE vs Parent with HE	0.00	0.00	-0.02
Low participation area vs other	0.00	0.00	-0.02*
Positive effects			
Age of entry: 25+ vs 18-20	0.06	0.00	0.00
Female versus male	0.05	0.05	0.03
Russell Group vs Non-Russell Group	0.04	0.05	0.04

Notes: All the coefficients are statistically significant at 5% unless marked with *, in which case they are significant at 10%