



The benefits and costs of international Arts and Design students to the UK economy

Report for the University of the Arts London


September 2023

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Foreword

The UK's creative industries enrich our lives and our communities, enhance our wellbeing, provide employment, contribute significantly to the economy, and create innovative solutions for societal issues we face. Furthermore, they possess a soft power that is all too often underestimated and undervalued.

However, where we can attribute value and define the clear and crucial benefits of creativity, the creative industries and creative education, we must. We cannot allow any shadow of doubt to remain in the minds of decision makers, for creativity to slip from the agenda or to be labelled as 'a nice to have'. We know, and evidence shows, that our creative industries are categorically a 'need to have'.

As a world-class university with a commitment to shaping the creative industries globally, UAL has a huge and sector-leading role to play in communicating these benefits so no doubt remains as to why the creative industries and education should be supported, respected, and elevated.

To underpin UAL's ongoing work and mission, we continue to develop research and analysis to determine the financial and societal impact of creative education and how we collectively safeguard our creative industries. From sharing our direct impact on the UK economy, to instigating a UK-wide commission tasked with identifying how to keep Britain's creative industries globally competitive, UAL is leading the charge.

This specific report, authored in partnership with London Economics, considers the benefits and costs of international arts and design students to the UK economy. It builds upon the previous London Economics report, commissioned by the Higher Education Policy Institute (HEPI), Universities UK International (UUKi), and Kaplan International Pathways.

The results of this report speak for themselves. Strikingly, the economic benefits associated with both EU and non-EU domiciled Arts and Design students are and exceed the corresponding average benefits generated by students across all subjects. At a benefit-to-cost ratio of 12.2, this is higher than the corresponding estimated average benefit-to-cost ratio across all international students (which is 9.4). Not only do these results show the power, pull, and exceptional reputation of creative education in the UK, but they demonstrate the positive financial impact associated with international students.

Even with all of this evidence, however, we have to acknowledge that the value of students can never, and should never, be defined by numbers alone. Our international students bring much more than the economic benefit outlined in this report; they're part of vital international cultural exchange, and essential to maintaining and developing the invaluable bonds of friendship between countries.

Polly Mackenzie, Chief Social Purpose Officer

Professor David Mba, Vice-Chancellor (Research, Knowledge Exchange, and Enterprise)

1 Introduction

Given the significance of international students as a source of export revenues and following our recent previous study of the benefits and costs to the UK economy associated with all international students (across all subjects¹), London Economics were commissioned by the University of the Arts London to estimate the **benefits and costs to the UK economy associated with international higher education (HE) students studying Arts and Design subjects in the UK**. Using a similar methodology as our recent study, this analysis focuses specifically on the cohort of students who started HE qualifications in Design and Creative and Performing Arts subjects² in the UK in 2021/22.

There were approximately **19,300** such first-year international students starting Arts and Design qualifications at higher education institutions (HEIs) across the UK in 2021/22³. Accounting for approximately **5%** of all international students commencing their studies in 2021/22 (ca. **381,000**), these international students contribute significantly to the economic and social prosperity of the UK (both in the short term during their studies, as well as in the medium to longer term after graduate).

Key findings

- The **total net impact** on the UK economy of the cohort of first-year international Arts and Design students enrolled at UK HEIs in the 2021/22 academic year was estimated at approximately **£2.25 billion** across the duration of their studies. Approximately **£376 million** of this net impact was associated with EU domiciled students, while the remaining **£1.87 billion** was generated by non-EU domiciled students.
- The estimated total benefit to the UK economy from 2021/22 first-year international Arts and Design students was approximately **£2.45 billion**, while the estimated total costs were **£200 million**. This implies a benefit-to-cost ratio of **12.2**. This is higher than the corresponding estimated average benefit-to-cost ratio across all international students in 2021/22 (which stood at **9.4**).⁴
- The **net economic impact per student** was estimated to be **£143,000** per EU domiciled Arts and Design student (compared to **£125,000** across all EU domiciled students), and **£112,000** per non-EU Arts and Design student (compared to **£96,000** for all non-EU domiciled students). In other words, every **7** EU students and every **9** non-EU in Arts and Design subjects generate £1m worth of net economic impact for the UK economy over the duration of their studies.

1.1 Overview of the analysis

Mirroring the approach applied throughout the recent analysis for HEPI, UUKi and Kaplan, we estimate the **economic benefits** of international Arts and Design students in terms of:

¹ On behalf of the Higher Education Policy Institute (HEPI), Universities UK International (UUKi), and Kaplan international Pathways. See London Economics (2023). The study followed two previous similar studies estimating these impacts for 2015/16 and 2018/19 (see London Economics (2018) and London Economics (2021), respectively).

² Specifically, the analysis focuses on students in subjects classified as 'Design, and creative and performing arts (CAH25)' according to the Higher Education Statistics Agency's (HESA's) Common Aggregation Hierarchy (CAH) of subjects; see Higher Education Statistics Agency (2023a) for more information. Throughout this report, we commonly refer to these subjects as 'Arts and Design subjects'.

³ Based on the coverage of the underlying student data provided to us by HESA/Jisc, the analysis includes publicly funded higher education institutions as well as alternative providers throughout the UK.

⁴ Again, see London Economics (2023).

- The **tuition fee income** generated by international Arts and Design students studying in the UK, as well as the **knock-on** (or ‘indirect’ and ‘induced’) effects throughout the UK economy associated with UK universities’ spending of this international fee income on staff, goods, and services;
- The income associated with the **non-tuition fee (i.e., living cost) expenditure** of international Arts and Design students, and the subsequent **knock-on** (indirect and induced) effects of this expenditure throughout the wider economy; and
- The income associated with the spending of **friends and family visiting** international students whilst studying in the UK. Again, this expenditure leads to subsequent **knock-on** (indirect and induced) effects throughout the UK economy.

There are a number of benefits that were **not** considered as part of this analysis, predominantly as a result of the difficulty in providing adequately robust evidence and measuring some of these benefits in monetary terms. For example, these include:

- The **tax revenues** generated from international Arts and Design students (or their dependants) while in employment in the UK – during and/or after their studies⁵;
- The longer-term **investment, business, and trade links** from hosting international students in the UK;
- The **soft diplomatic power** exerted by the UK on the international stage that results from the networks built up during international students’ stays; and
- The **wider cultural** and **societal impacts** associated with a more diverse population and particularly with international Arts and Design students’ contributions to the UK’s cultural capital.

In relation to the **public costs** associated with hosting international Arts and Design students, we considered the costs associated with the provision of **general public services** to international students and their dependants. This includes the costs associated with public **healthcare** (net of the NHS Immigration Health Surcharge); **housing** and **community amenities**; primary and secondary-level **education** received by dependent children; **public order** and **safety**; **defence**; **economic affairs**; **recreation** and **culture**; **environmental protection**; and other **general public services**. We also include the costs associated with ‘**non-identifiable**’ **public expenditure** incurred by the UK Exchequer on behalf of the UK as a whole (e.g., expenditure relating to the **servicing of the national debt**), as well as **expenditure on overseas activities** (e.g., diplomatic activities).⁶

Given that our methodology broadly mirrors our recent study for HEPI, UUKi and Kaplan, we do not present a detailed overview of our methodological approach here⁷. Instead, in Annex 2, we provide an overview of any key methodological differences (including differences in underlying data sources and assumptions) between this analysis and our previous work.

⁵ While not included in the estimates here, we previously undertook a separate study for HEPI and Kaplan International Pathways to estimate the post-graduation tax revenues associated with international students (in any subject) studying in the UK and who enter and remain in the UK labour market after graduating (see London Economics, 2019).

⁶ Note that, given the significant post-Brexit changes in eligibility rules, the public teaching grants and tuition fee support that were previously provided to EU students studying in the UK (and which were included in our previous analyses of this type) generally no longer apply to EU students who start higher education qualifications in the UK from 2021/22 onwards. Therefore, these costs have not been captured here.

⁷ Full details of the methodology used in our previous study are available in our Full Report for HEPI, UUKi and Kaplan (again, see London Economics (2023)).

1.2 Level of analysis

In terms of the geographic level of the analysis:

- In addition to their total UK-wide impact, we linked international Arts and Design students to the location of the higher education institution they attend. This allows us to understand the contribution to the UK economy originating at a **regional level**.
- We also undertook an *indicative* analysis of the contribution of international Arts and Design students to UK economic activity by **parliamentary constituency**, using available Census information on the total number of students residing in each parliamentary constituency. Given that there are a range of limitations associated with this data⁸, the constituency-level analysis should be treated as indicative and interpreted with caution. We therefore only present limited constituency-level results within this report.

⁸ The data on residency by parliamentary constituency includes both UK and non-UK domiciled students and covers students studying *any* subject. Therefore, given the difference in the number of UK and non-UK domiciled students, the data is likely to primarily reflect the residency of UK domiciled students. In addition, the data reflect the distribution of *all* students (irrespective of subject) by constituency, but *not* the particular locations of students studying Arts and Design subjects. As such, the analysis does not accurately reflect the true constituency breakdown of international Arts and Design students. For a more detailed discussion of these and other caveats associated with the data, see Annex A2.5.

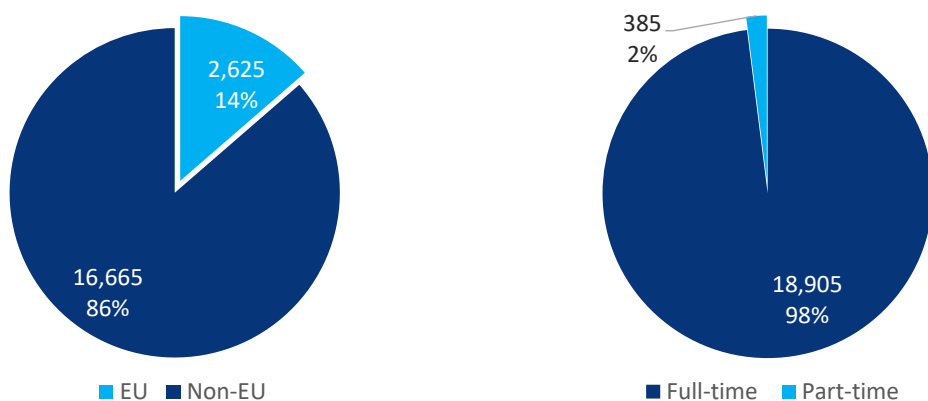
2 The 2021/22 cohort of international Arts and Design students

The analysis focuses on the aggregate economic benefits and costs to the UK economy associated with the approximately **19,290** international first-year Arts and Design students who *commenced* their higher education studies in the UK in 2021/22.⁹ We take account of the total impacts associated with these students **over the entire duration of their study in the United Kingdom** (adjusted for completion rates). In other words, this approach measures the impact of a single cohort of international Arts and Design students over the course of their studies.

2.1 Domicile, level, and mode of study

In terms **domicile** (see left panel of Figure 1), approximately **86% (16,665)** of international first-year Arts and Design students in 2021/22 were non-EU domiciled, with **14% (2,625)** domiciled in the EU. In terms of **mode of study** (see right panel of Figure 1), **98%** of students in the cohort were undertaking full-time qualifications, with the remaining **2%** engaged on a part-time basis.

Figure 1 International first-year Arts and Design students enrolled in UK HE in 2021/22, by domicile and mode of study



Note: All student numbers are rounded to the nearest 5, and totals may not sum due to rounding. *Source: London Economics' analysis of data provided by Jisc*¹⁰

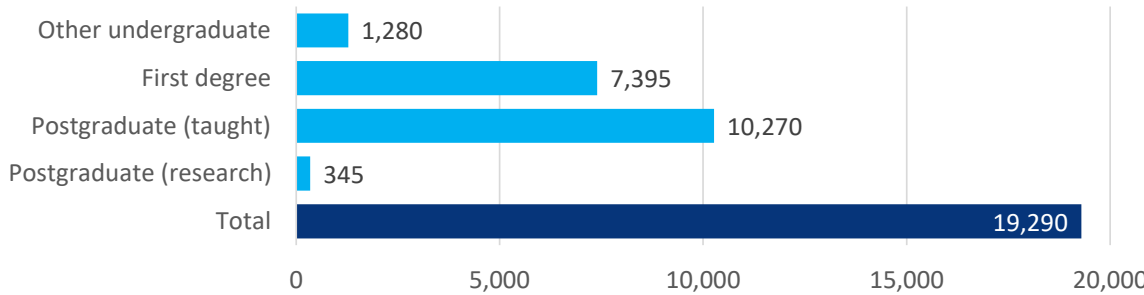
Considering the **level of study** undertaken (see Figure 2), approximately **53% (10,270)** of students in the cohort were undertaking **taught postgraduate degrees**, with a further **345** students (**2%**) undertaking **postgraduate research degrees**. Around **8,675** students (**45%**) were engaged in

⁹ Again, the analysis focuses on students in subjects classified as 'Design, and creative and performing arts (CAH25)' according to HESA's Common Aggregation Hierarchy of subjects; see Higher Education Statistics Agency (2023a) for more information.

¹⁰ Since the analysis required more granular institution-level information than the high-level student data published by HESA, we instead made use of unpublished detailed student data provided to us by Jisc. Compared to the student data published by HESA (2023b), the required more granular student data provided by Jisc excluded a total of 16 higher education providers with an Arts and Design offering (which accounted for a total of 695 international first-year Arts and Design students in 2021/22). To ensure that we comprehensively and consistently capture the entire relevant student population, we therefore estimated the granular breakdown of these 695 students across each of these 16 missing institutions. Specifically, based on the published HESA student data and the unpublished data provided to us by Jisc, we first calculated the total number of first-year students enrolled across all of the missing institutions (by domicile, level of study, and mode of study). We then estimated the breakdown of these students by individual missing HEI, by applying the distribution of all students (across all domiciles and years of study, as specific data for international first-year students only were not available)) by missing HEI from the published HESA data, separately by mode and level of study.

undergraduate qualifications, of which **7,395 (38%)** were undertaking **first degrees** and **1,280 (7%)** were enrolled in **other undergraduate qualifications**.

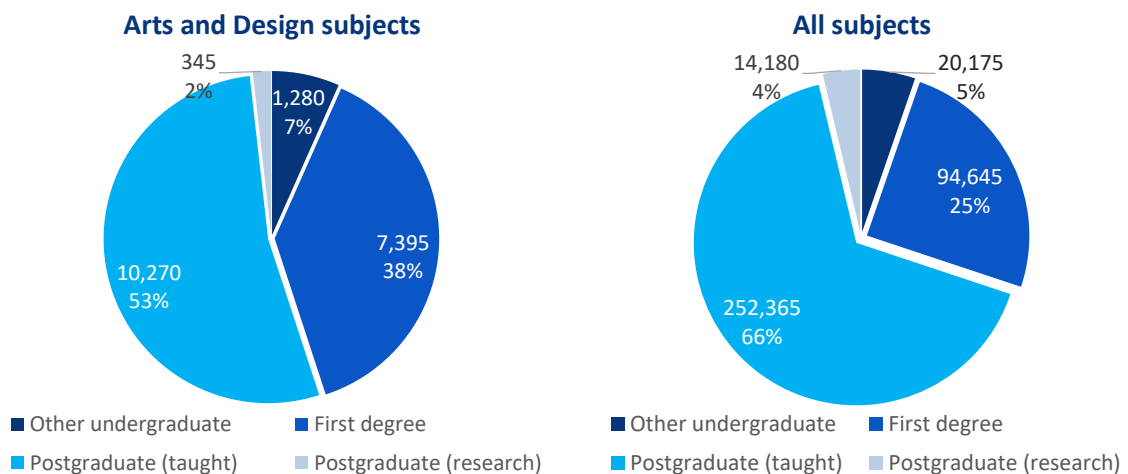
Figure 2 International first-year Arts and Design students enrolled in UK HE in 2021/22, by level of study



Note: All student numbers are rounded to the nearest 5, and totals may not sum due to rounding. **Source: London Economics' analysis of data provided by Jisc**

Compared to the entire cohort of international students commencing their studies in UK higher education institutions in 2021/22 (i.e., across all subjects), international Arts and Design students in the cohort were relatively more likely to undertake first degrees (with a typically longer study duration) and less likely to undertake (typically shorter) postgraduate taught degrees. As presented in Figure 2, **38%** of first-year Arts and Design students were enrolled in first degrees, compared to **25%** of students across all subjects, with the corresponding percentages for postgraduate taught qualifications standing at **53%** (Arts and Design subjects) and **66%** (all subjects), respectively¹¹. As discussed in further detail in Section 3, these compositional differences will have the effect of increasing the average net economic impact per Arts and Design students as compared to the average impact per student in any subject (as a result of the longer expected study duration associated with students undertaking first degrees as opposed to shorter taught Masters degrees).

Figure 3 International first-year students enrolled in UK HE in 2021/22 by level of study - Arts and Design subjects vs. all subjects



Note: All student numbers are rounded to the nearest 5, and may differ slightly from student numbers published by HESA due to this rounding. In addition, totals may not sum due to this rounding. **Source: London Economics' analysis of data provided by Jisc (for Arts and Design students), and data published by HESA (2023b; for students in all subjects)**

¹¹ Note that this higher likelihood of undertaking first degrees applies to both EU and non-EU students. Specifically, **63%** of EU domiciled and **35%** of non-EU domiciled first-year Arts and Design students in the 2021-22 cohort were enrolled in first degrees, compared to only **42%** of EU domiciled and **23%** of non-EU domiciled students across all subjects, respectively.

2.2 Location of study

In terms of their **location of study** (by region), international Arts and Design students in the 2021/22 cohort were spread across the entire UK; however, unsurprisingly, compared to students in all subjects, Arts and Design students in particular were heavily concentrated in London and (to a lesser extent) the South East (see Table 1). Specifically, there were approximately **9,640** first-year Arts and Design students enrolled at London-based higher education institutions (**50%** of total, and compared to **26%** of all international students in any subject), with a further **2,400** (**12%**) attending institutions in the South East. Throughout the rest of England, there were a further **1,185** students studying in Yorkshire and the Humber, **1,030** in the East Midlands, **835** in the West Midlands, **810** in the South West, **740** in the North West, **495** in the East of England, and **205** in the North East. In relation to the other UK home nations, there were **1,495** international first-year Arts and Design students in Scotland, **355** in Wales, and **95** in Northern Ireland.

Table 1 International first-year students enrolled in UK HE in 2021/22 by region of study - Arts and Design subjects vs. all subjects

Region of study	Arts and Design subjects		All subjects	
	Number	% of total	Number	% of total
London	9,640	50.0%	98,825	25.9%
South East	2,400	12.4%	34,660	9.1%
Scotland	1,495	7.8%	44,085	11.6%
Yorkshire & the Humber	1,185	6.1%	31,360	8.2%
East Midlands	1,030	5.3%	24,235	6.4%
West Midlands	835	4.3%	29,750	7.8%
South West	810	4.2%	19,700	5.2%
North West	740	3.8%	27,680	7.3%
East of England	495	2.6%	24,835	6.5%
Wales	355	1.8%	14,905	3.9%
North East	205	1.1%	18,715	4.9%
Northern Ireland	95	0.5%	12,615	3.3%
Total	19,290	100.0%	381,365	100.0%

Note: All student numbers are rounded to the nearest 5, and may differ slightly from student numbers published by HESA due to this rounding. In addition, totals may not sum due to this rounding.

Source: London Economics' analysis of data provided by Jisc (for Arts and Design students), and data published by HESA (2023b; for students in all subjects)

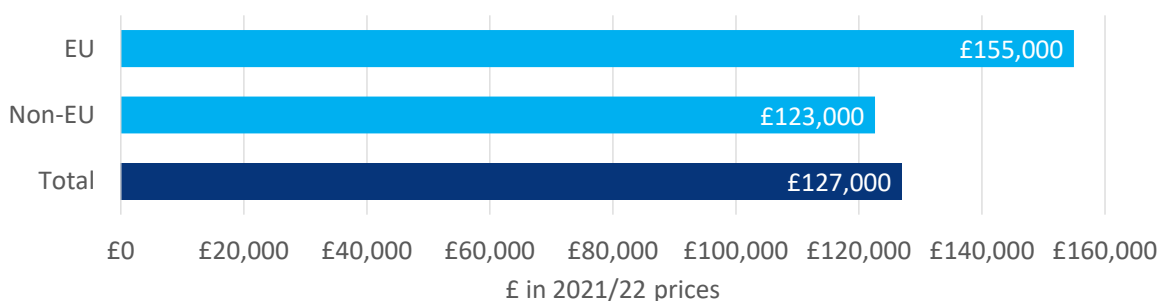
3 Findings

3.1 Economic benefits associated with international Arts and Design students

Combining the direct, indirect, and induced economic benefits of the tuition fee, non-fee, and visitor income associated with international Arts and Design students in the 2021/22 cohort, the total gross benefit to the UK economy associated with a typical **EU domiciled** Arts and Design student was estimated at approximately **£155,000** over the duration of their studies (see Figure 4). The comparable estimate per **non-EU domiciled** Arts and Design student stood at approximately **£123,000**, with an overall average of **£127,000** across both domiciles. The difference between the two estimates is primarily driven by the fact that EU students are relatively more likely to undertake first degrees (with a relatively longer study duration) as compared to postgraduate taught degrees (with a typically shorter study duration).¹² Therefore, the benefits associated with EU students accrue over a longer period, resulting in a larger average benefit per student over the total study period.

However, in spite of these differences, note that the economic benefits associated with *both* EU and non-EU domiciled Arts and Design students are substantial, and exceed the corresponding average benefits generated by students across *all* subjects. This is outlined in further detail in Section 3.3.1, and predominantly reflects the fact that both EU and non-EU Arts and Design students are more likely to undertake (typically longer) first degree programmes than EU and non-EU students across all subjects (respectively).

Figure 4 Total benefit per student in the 2021/22 cohort of international Arts and Design students, by domicile



Note: Values per student are rounded to the nearest £1,000. All estimates are presented in 2021/22 prices and discounted to reflect net present values. Totals may not sum due to rounding. **Source: London Economics' analysis**

Aggregating across the entire cohort, we estimate that the total economic benefits of the 2021/22 cohort of international Arts and Design students to the UK economy stands at approximately **£2.45 billion** over the entire period of their studies, of which **£407 million** is generated by EU students, and approximately **£2.04 billion** is generated by non-EU students (see Table 2). In terms of the breakdown by type of benefit, the largest impact was associated with the impact of students' tuition

¹² Specifically, among EU students within the 2021/22 cohort of international Arts and Design students, 63% were enrolled in first degree courses, and 31% were undertaking postgraduate taught degrees (and the remaining 6% were enrolled in other undergraduate or postgraduate research courses). In contrast, among non-EU students, the corresponding percentages stood at 35% for first degrees, and 57% for postgraduate taught qualifications (and 9% for other undergraduate or postgraduate research qualifications).

fees (£1.41 billion), followed by the impacts of non-fee income (£1.00 billion) and visitor income (£42 million)¹³ associated with these students.

Table 2 Total benefits associated with the 2021/22 cohort of international Arts and Design students, by domicile and type of benefit

Type of benefit	EU	Non-EU	Total
Fee income	£238m	£1,170m	£1,408m
Non-fee income	£160m	£840m	£1,000m
Visitor income	£8m	£34m	£42m
Total	£407m	£2,043m	£2,450m

Note: Values are rounded to the nearest £1 million. All estimates are presented in 2021/22 prices and discounted to reflect net present values. Totals may not sum due to rounding. *Source: London Economics' analysis*

3.2 Exchequer costs associated with international Arts and Design students

Following the UK's exit from the European Union and the resulting significant changes in the eligibility rules for EU domiciled students, from 2021/22 onwards, EU students studying in the UK are generally no longer eligible for public teaching grant or student support funding.¹⁴ Hence, our analysis focuses exclusively on the public purse costs of hosting international students in relation to the provision of general public services (such as public health services, education provision for child dependants, public order and safety, and a range of other public services).

These public service costs to the Exchequer per typical EU domiciled Arts and Design student were estimated at approximately **£12,000** (Figure 5), while the comparable figure per non-EU student was estimated at **£10,000** (with an overall average of **£10,000** across both domiciles). The (slightly) higher costs per EU student are again primarily driven by their higher likelihood of undertaking courses with longer study durations (i.e., first degrees), which outweighs the fact that non-EU students are typically more likely to bring dependants to the UK than EU students (and note that the number of dependants associated with non-EU students has increased significantly in recent years¹⁵).

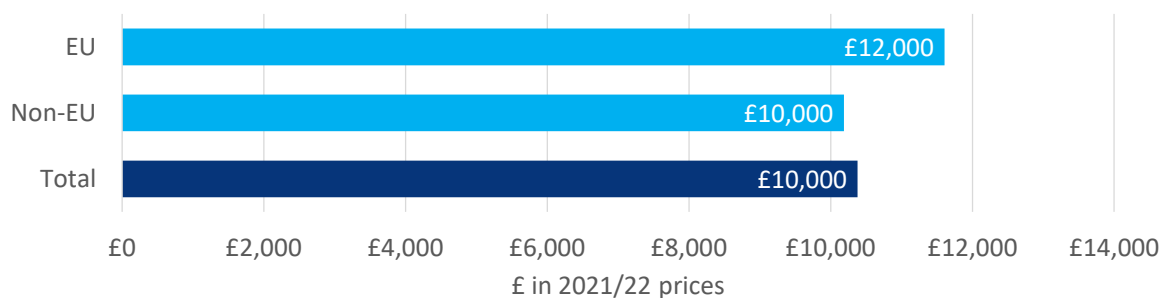
Aggregating across the 2021/22 cohort of international first-year Arts and Design students, the total cost of providing public services to these students (and their dependants) was estimated at approximately **£200 million** (see Table 3). Of this total, approximately **£30 million** is associated with EU domiciled students and their dependants, with the remaining **£170 million** associated with providing public services to non-EU students and their dependants.

¹³ As with our recent analysis for international students in all subjects for HEPI, UUKi and Kaplan, the estimated spending of family and friends visiting international Arts and Design students in the first year of study (2021/22) was adjusted for the impact of the Covid-19 pandemic on overseas visitors to the UK in that year. For more information, see London Economics (2023).

¹⁴ This applies to first-year EU domiciled students starting HE qualifications in the UK from 2021/22 onwards.

¹⁵ For more information on our assumptions in relation to the number of dependants joining international students in the UK, again see London Economics (2023). In the absence available information on international Arts and Design students specifically, we assumed the same likelihood of bringing in dependants for these students as for international students in all subjects of study.

Figure 5 Total cost per student in the 2021/22 cohort of international Arts and Design students, by domicile



Note: Values per student are rounded to the nearest £1,000. All estimates are presented in 2021/22 prices and discounted to reflect net present values. *Source: London Economics' analysis*

Table 3 Total costs associated with the 2021/22 cohort of international Arts and Design students, by domicile and type of cost

Type of cost	EU	Non-EU	Total
Teaching grants	-	-	-
Student support	-	-	-
Other public costs	£30m	£170m	£200m
Total	£30m	£170m	£200m

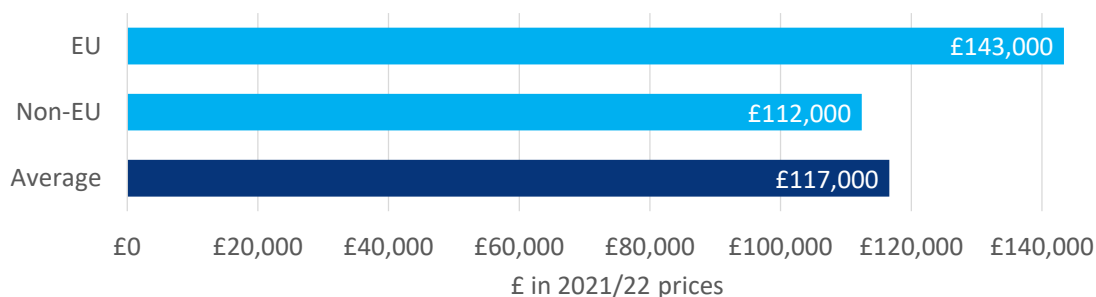
Note: Values are rounded to the nearest £1 million. All estimates are presented in 2021/22 prices and discounted to reflect net present values. Totals may not sum due to rounding. *Source: London Economics' analysis*

3.3 Net economic impact of international Arts and Design students

3.3.1 Net impact on the UK as a whole

Deducting the above costs from the above benefits, the **net economic impact** was estimated to be **£143,000** per 'typical' EU domiciled Arts and Design student in the 2021/22 cohort, **£112,000** per non-EU domiciled student, and £117,000 on average across both domiciles (see Figure 6). In other words, these results suggest that **every 7 EU students and every 9 non-EU students generate £1 million worth of net economic impact for the UK economy** over the duration of their higher education studies in the UK.

Figure 6 Net impact per student in the 2021/22 cohort of international Arts and Design students, by domicile



Note: Values per student are rounded to the nearest £1,000. All estimates are presented in 2021/22 prices and discounted to reflect net present values. *Source: London Economics' analysis*

Expressed in terms of **benefit-to-cost-ratios**, dividing the (gross) economic benefit associated with EU and non-EU domiciled Arts and Design students (£155,000 and £123,000, respectively) by the corresponding public costs (£12,000 and £10,000, respectively), the analysis suggests that there is a benefit-to-cost-ratio of approximately **13.4** and **12.0** associated with hosting EU and non-EU Arts and Design students in the UK, respectively (and **12.2** on average across both domiciles).

Table 4 compares these net impacts per student to the corresponding estimates from our recent analysis of the net economic impact generated by international students across *all* subjects¹⁶. Overall, the average net impact per international Arts and Design student (£117,000, across both domiciles) exceeds the corresponding net impact per international student across all subjects (£98,000). The estimates per EU student stand at £143,000 for Arts and Design subjects and at £125,000 for students across all subjects, while the net impact per non-EU student was estimated to be £112,000 for Arts and Design subjects and £96,000 across all subjects. Similar to the relatively larger per-student results for EU vs. non-EU Arts and Design students described above, the differences between students in Arts and Design subjects vs. all subjects are predominantly driven by differences in the composition of the two student cohorts. Specifically, and as further outlined in Section 2.1, compared to the study-level distribution among students in all subjects, Arts and Design students are relatively more likely to undertake (typically longer) first degree programmes rather than (typically shorter) taught Masters degrees¹⁷. Therefore, again, the resulting total benefits over the entire study duration for these students are larger (resulting in a larger average benefit per student¹⁸).

Table 4 Net impact per student in the 2021/22 cohort, by domicile - Arts and Design subjects vs. all subjects

Type of impact	EU	Non-EU	Total
Arts and Design students			
Economic benefits	£155,000	£123,000	£127,000
Public costs	£12,000	£10,000	£10,000
Net impact	£143,000	£112,000	£117,000
All students			
Economic benefits	£137,000	£107,000	£110,000
Public costs	£13,000	£12,000	£12,000
Net impact	£125,000	£96,000	£98,000

Note: Values are rounded to the nearest £1 million. All estimates are presented in 2021/22 prices and discounted to reflect net present values. Totals may not sum due to rounding. *Source: London Economics' analysis*

Aggregating the above findings across the total cohort of first-year international Arts and Design students enrolled at UK HEIs in the 2021/22 academic year, the total net impact of these international students on the UK economy was estimated to be **£2.25 billion** (see Figure 7). Approximately **£1.87 billion** of this net impact was associated with EU domiciled students, while the remaining **£376 million** was associated with non-EU domiciled students. The total impact of **£2.25**

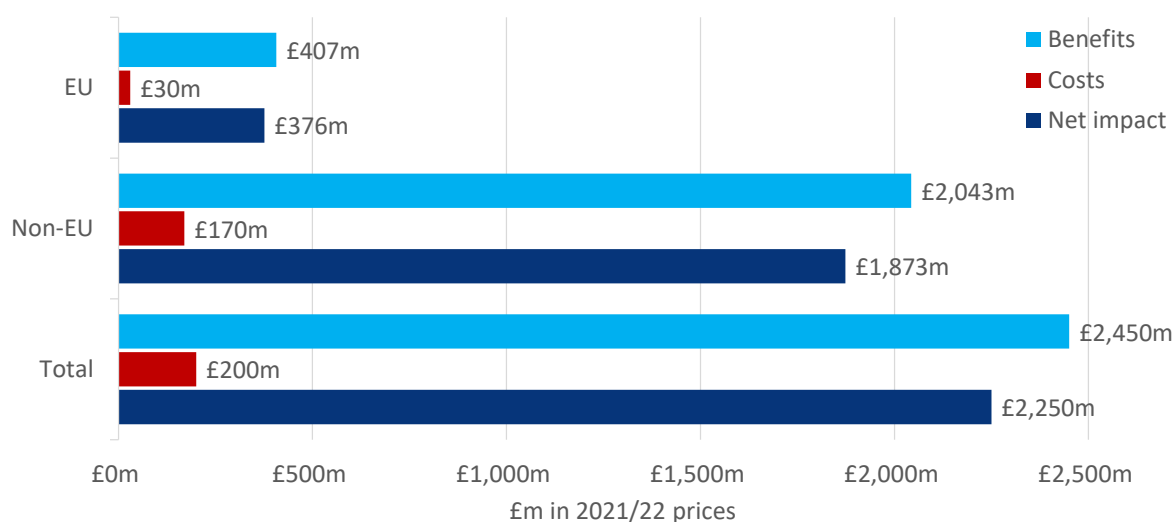
¹⁶ Again, see London Economics (2023).

¹⁷ Again, note that this applies to both EU and non-EU domiciled students separately, i.e., both EU and non-EU domiciled Arts and Design students are more likely to undertake first degree programmes than EU and non-EU domiciled students in all subjects, respectively.

¹⁸ Note that the slightly *lower* average public costs per Arts and Design student vs. students in all subjects are mostly driven by the fact that our HEPI/UUKi/Kaplan analysis for all subjects made use of data on UK expenditures on public services from 2020/21 (as this was the most recent data available at the time), with relatively large public spending incurred in that year due to the severe disruption caused by the Covid-19 pandemic. In contrast, the analysis for Arts and Design students here instead uses more recent public expenditure data for 2021/22, which includes somewhat lower public spending levels than in 2020/21. For more information on these methodological differences, please refer to Annex 2.

billion for Arts and Design students represents approximately **6%** of the net economic impact associated with the total 2021/22 cohort of international students undertaking HE qualifications in any subject (**£37.4 billion¹⁹**).

Figure 7 Net impact associated with the 2021/22 cohort of international Arts and Design students, by domicile



Note: Values are rounded to the nearest £1 million. All estimates are presented in 2021/22 prices and discounted to reflect net present values. Totals may not sum due to rounding. *Source: London Economics' analysis*

3.3.2 Net impact by region

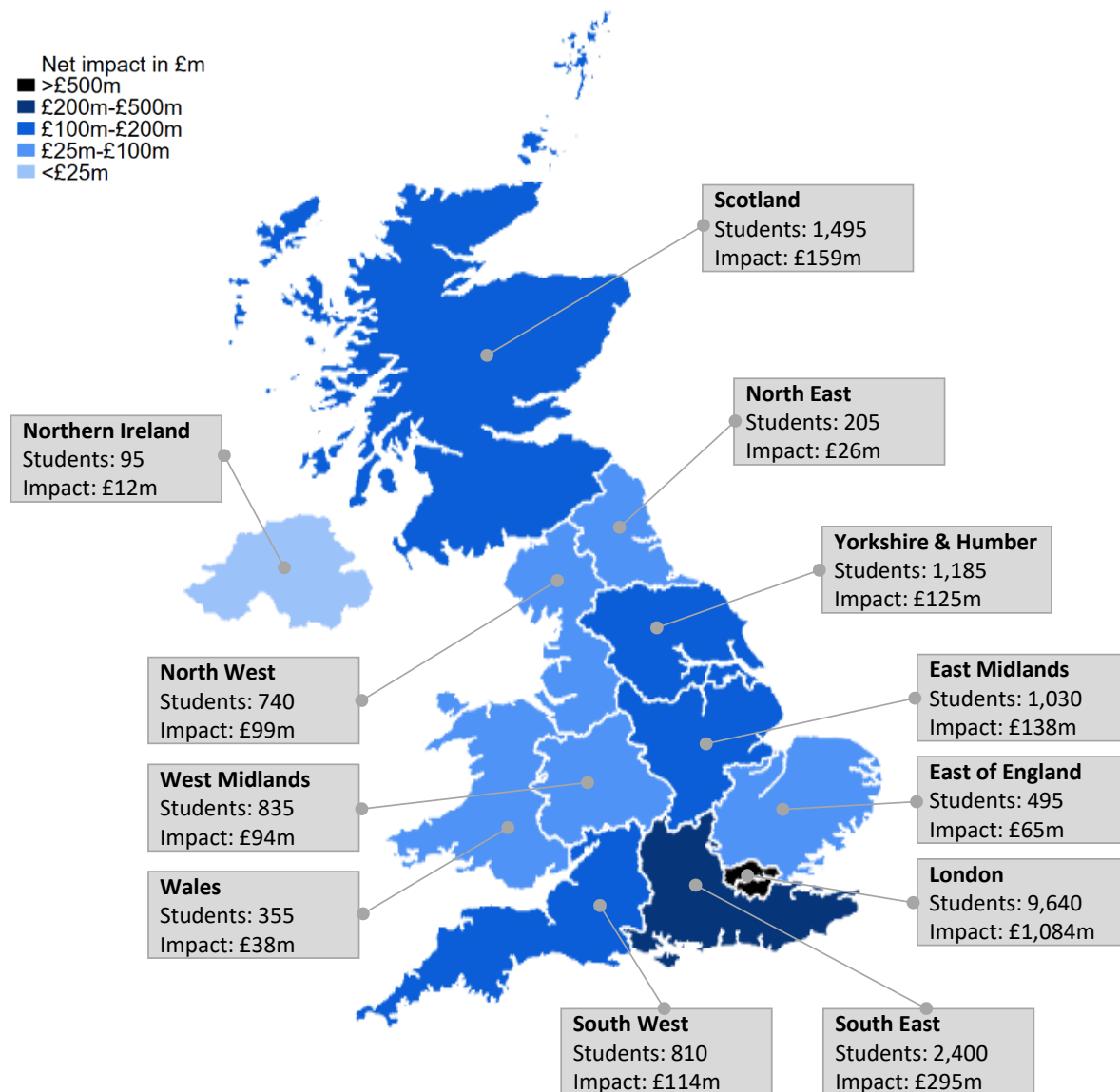
Figure 8 presents the total net impact of Arts and Design students in the cohort **by region** of the institution that they attended. Hence, rather than measuring the economic impact of international students *on each region* (although there will clearly be a significant local and regional impact associated with international students' presence), the analysis instead estimates the impact *on the UK as a whole*, but splits this out by the location of these international students (in terms of the location of the HEIs they are enrolled with). In other words, rather than illustrating the 'destination of impact', the analysis presents the 'origin of impact' in terms of the location of the HEI attended by each student in the cohort.

Clearly, the distribution of net economic impact by region of institution is closely linked to the number of students attending institutions in each region. Reflecting the concentration of students in London²⁰, **£1,084 million (48%)** of the total net impact is generated by international Arts and Design students attending higher education providers in London. This is followed by **£295 million (13%)** associated with students studying at HEIs in the South East, **£232 million (10%)** generated by students in the Midlands (i.e., the East Midlands (**£138 million**) and West Midlands (**£94 million**) combined), **£159 million (7%)** associated with students in Scotland, and **£125 million (6%)** associated with students in Yorkshire and the Humber.

¹⁹ Again, see London Economics (2023).

²⁰ See Section 2.2 for more information.

Figure 8 Net impact associated with the 2021/22 cohort of Arts and Design, by region



Note: Number of students refers to the number of students in the 2021/22 cohort of international first-year Arts and Design students that were enrolled with HEIs in that region (rounded to the nearest 5). Monetary values are rounded to the nearest £1 million. All monetary estimates are presented in 2021/22 prices and discounted to reflect net present values.

Source: London Economics' analysis. Contains Office for National Statistics data (licensed under the Open Government Licence v.3.0), OS data, Royal Mail, Gridlink, LPS (Northern Ireland), NISRA data, NRS data and Ordnance Survey data © Crown copyright and database right 2023.

3.3.3 Net impact by parliamentary constituency

To analyse the impact of international students on the UK economy at a more granular level, within each region, we then split the above net impacts by **parliamentary constituency**. It is important to note that, given that there is no official information on the specific residency location of international Arts and Design students, we have assumed that the residency distribution of these students is the same as that for all students 'usually resident' in the UK (i.e., including both UK and non-UK domiciled students, and including students studying *any* subject). In other words, based on the estimated impact international students to the UK economy by region (by region of higher education institution), within each region, we then applied the geographic distribution of *all students* by constituency (from Census data) to *international Arts and Design* students. Given these

caveats²¹, the estimates by constituency should be treated as indicative and interpreted with caution.

Table 5 presents the results for the 20 parliamentary constituencies with the highest net impact on the UK economy resulting from international students in the 2021/22 cohort. Reflecting the heavy concentration of international Arts and Design students in London, all of these top 20 constituencies in terms of net impact are based in London, with the impact on the UK economy associated with students located in each of these constituencies ranging between **£17 million** to **£33 million**.

The analysis indicates that international students in **Holborn and St Pancras** make the largest total contribution to the UK economy. Specifically, reflecting the estimated number of international first-year Arts and Design students resident in Holborn and St Pancras (**295**), the contribution to the UK economy of students resident in that constituency was estimated at approximately **£33 million**. This is followed by the estimated impact of international Arts and Design students residing in **West Ham (£29 million)**, **Bethnal Green and Bow (£27 million)**, **East Ham (£27 million)**, **Bermondsey and Old Southwark (£26 million)**, and **Poplar and Limehouse (£26 million)**.

Table 5 Total costs, benefits, and net impact of international students in the top 20 parliamentary constituencies (in terms of net impact)

Rank	Parliamentary constituency	# of 1 st year students	Benefits	Costs	Net impact
1	Holborn and St Pancras	295	£36.2m	£3.3m	£32.9m
2	West Ham	260	£32.1m	£2.9m	£29.2m
3	Bethnal Green and Bow	240	£29.9m	£2.7m	£27.2m
4	East Ham	235	£29.5m	£2.7m	£26.8m
5	Bermondsey and Old Southwark	235	£28.9m	£2.6m	£26.3m
6	Poplar and Limehouse	230	£28.3m	£2.6m	£25.7m
7	Brent Central	200	£25.2m	£2.3m	£22.9m
8	Ilford South	190	£23.4m	£2.1m	£21.3m
9	Cities of London and Westminster	185	£23.1m	£2.1m	£21.0m
10	Barking	175	£21.6m	£2.0m	£19.6m
11	Hendon	175	£21.5m	£2.0m	£19.6m
12	Brent North	175	£21.4m	£2.0m	£19.4m
13	Tottenham	170	£21.0m	£1.9m	£19.1m
14	Islington South and Finsbury	165	£20.8m	£1.9m	£18.9m
15	Hammersmith	165	£20.4m	£1.9m	£18.5m
16	Kensington	160	£19.8m	£1.8m	£18.0m
17	Lewisham, Deptford	160	£19.7m	£1.8m	£17.9m
18	Westminster North	155	£19.4m	£1.8m	£17.6m
19	Vauxhall	155	£19.4m	£1.8m	£17.6m
20	Camberwell and Peckham	155	£19.0m	£1.7m	£17.3m
Average (all constituencies)		30	£3.8m	£0.3m	£3.5m

Note: Numbers of students are rounded to the nearest 5. Monetary estimates are rounded to the nearest £0.1 million, presented in 2021/22 prices, and discounted to reflect net present values. *Source: London Economics' analysis*

²¹ Further detail on the constituency breakdown and associated caveats is provided in Annex A2.5.

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Annex 2 Summary of methodological approach

As outlined in Section 1, throughout the analysis, we have adopted a comparable approach to the methodology used as part of our recent work undertaken for HEPI, UUKi, and Kaplan (see London Economics, 2023). While the general structure of the analysis remains the same (so that the full methodology is not repeated here), we made several specific amendments to the approach here to adjust the analysis to reflect the specific characteristics and circumstances of the cohort of international Arts and Design students commencing their studies in 2021/22 (as opposed to students across all subjects). These core methodological changes are outlined in the following, and, apart from these changes, all other assumptions and data sources used for this study remain the same as in our previous analysis.

A2.1 Student data

As discussed in Section 2, the analysis here makes use of granular data on the number of students enrolled in HE qualifications in the UK in 2021/22 by subject of study (broken down by domicile, mode of study, level of study, domicile, first year marker, and HE provider), which we requested from Jisc (as the existing published HESA data was not sufficiently granular). Our analysis specifically focuses on first-year international students in Arts and Design subjects (based on HESA CAH subject category ‘Design, and creative and performing arts (CAH25)’ commencing HE qualifications in the UK in 2021/22.

A2.2 Tuition fees

While we use the same approach to estimate the non-fee income and visitor income per student per year as in our previous analysis across all subjects²², we incorporate information on the specific tuition fees paid by international Arts and Design students. Specifically, the analysis is based on granular course-level tuition fee data for the 2021/22 academic year provided by The Knowledge Partnership, with separate datasets available for undergraduate courses and postgraduate taught courses²³:

- Using this course-level information, we first estimated the average fee charged to **non-EU domiciled full-time students** for courses in ‘Design, and creative and performing arts (CAH25)’ subjects, separately by HE provider, and level of study (i.e., undergraduate, postgraduate taught, and postgraduate research²⁴). Based on the information by institution, we then calculated more high-level weighted average tuition fees for these students by level, and home nation location (i.e., separately for students studying in England, Wales, Scotland, and Northern Ireland), weighted by the corresponding number of non-EU full-time first-year students in ‘Design, and creative and performing arts (CAH25)’ subjects in 2021/22.
- After deriving the fees per non-EU full-time student in this way, to arrive at fee levels for **part-time students** (again by level and location of study), we then multiplied the respective

²² i.e., we assume the same average non-fee and visitor income per student per year as in London Economics (2023).

²³ For more information, see The Knowledge Partnership (2023).

²⁴ For each HE provider included in the data, we calculated both the average fee across all courses in the relevant subject group, as well as the minimum and maximum fee charged across these courses by the HEI. In the absence of specific fee information for postgraduate research courses (as these courses were not covered by the data provided by The Knowledge Partnership), we then used the minimum (i.e., lower bound) fees for postgraduate taught students as our assumed fees for postgraduate research students.

full-time fee rates by the assumed average study intensity amongst part-time students in the cohort.

- Finally, following the UK's exit from the European Union, we assume that all EU students in the 2021/22 cohort were charged the same tuition fees as non-EU students (as first-year EU students were generally no longer eligible for 'home' fee status from 2021/22 onwards). As a result, we apply the above-described average non-EU fee rates to both non-EU *and* EU students (i.e., we assume the same fees per student per year for EU students as for non-EU students).

A2.3 Public purse costs

As with our previous analysis for HEPI, UUKi and Kaplan, the analysis of the Exchequer costs of providing general public services to international students and their dependants joining them in the UK here is primarily based on data from Public Expenditure Statistical Analyses (PESA) published by HM Treasury²⁵. However, while our previous analysis used PESA data for the 2020/21 tax year (as this was the most recent data available at the time), for the analysis here, we were able to use the more recent PESA data for 2021/22²⁶. As outlined in London Economics (2023), the previous use of 2020/21 data likely led to an overestimate of the public costs associated with international students, due to increased government spending during the Covid-19 pandemic (e.g., in relation to the Coronavirus Job Retention Scheme). Here, the use of data for 2021/22 results in somewhat lower estimated public purse costs, due to the relatively lower levels of public spending incurred in 2021/22 as compared to 2020/21²⁷.

A2.4 Inflation forecasts

Throughout the analysis, we make use of Consumer Price Index (CPI) inflation forecasts to convert the estimated benefits and costs that are expected to occur in future academic years (i.e., in academic years after 2021/22) to 2021/22 prices. Compared to our previous study (again, see London Economics (2023)), the analysis here is based on more recent long-term CPI forecasts that have been published by the Office for Budget Responsibility (OBR) since²⁸.

A2.5 Breakdown by parliamentary constituency

As before, using the results by region, the breakdown of the net economic impacts by parliamentary constituency within each region was estimated based on the overall distribution of the UK student population by constituency. Given the lack of specific information on the residence of *international higher education students in Arts and Design* in the UK at the parliamentary constituency level, we instead made use of information from the 2021 Census (for England, Wales, and Northern Ireland) and 2011 Census (for Scotland) on the total number of full-time students that are 'usually resident'²⁹

²⁵ And supplemented with more specific information for international students and their dependants where possible/available.

²⁶ See HM Treasury (2023).

²⁷ See the results presented in Section 3.3.1.

²⁸ See Office for Budget Responsibility (2023). Specifically, here, we use information from the 'long-term economic determinants' forecasts that were published by the OBR in June 2023 (as supplementary statistics to their March 2023 Economic and Fiscal Outlook publication).

²⁹ Usual residents in the Census are defined as anyone who, on Census Day, was in the UK and had stayed or intended to stay in the UK for a period of 12 months or more or had a permanent UK address and was outside the UK and intended to be outside the UK for less than 12 months. For more information on the Census definitions, see Office for National Statistics (2023) and Northern Ireland Statistics and Research Agency (2020).

in each parliamentary constituency across the UK.^{30 31} Our previous analysis used the same data for the constituency breakdown *except* for Northern Ireland: Whereas the previous analysis used similar 2011 Census data as for Scotland (as more up-to-date information was not available at the time), the more recent publication of constituency-level data from the 2021 Census for Northern Ireland allowed us to use this more contemporary information to estimate the constituency breakdown for students studying in Northern Ireland.

While the above constitutes the only publicly available information on students' residency by constituency, it is important to note that:

- The data is based on **students studying any subject**, i.e., the resulting distribution by constituency reflects the distribution of *all* students by constituency (irrespective of subject), but *not* the particular location of students studying Arts and Design subjects;
- The information includes **both UK domiciled as well as non-UK domiciled students** (based on the above definition of 'usual residents'). Given the difference in the number of UK and non-UK domiciled HE students studying the UK, the data therefore primarily reflects the residency of UK domiciled students (and, as such, does not reflect the true picture in constituencies especially where there may be a particularly high concentration of international students);
- The data includes students undertaking qualifications **at any level of education** (rather than higher education students only), thus reducing the concentration of the estimated economic impact around HE providers, and dispersing the impact more widely across the country (by partially reflecting the location of further and secondary education providers);
- The information is **relatively outdated** for Scotland in particular (as the most recent data that is currently available was collected on 27 March 2011³²);
- The data focuses on **full-time students only** (though note that only **2%** of the 2021/22 cohort of international Arts and Design students were undertaking qualifications on a part-time basis³³); and
- The data includes students of **any age between 18 and 74** (for the 2011 Census data used for Scotland) and **aged 16 and over** (for the 2021 Census data used for England, Wales, and Northern Ireland).

The general effect of these limitations will be to reduce the concentration of the estimated economic contribution in and around HE providers with an Arts and Design offering, and spread the impact more widely across the country in our findings as compared to reality. Given these caveats, the constituency-level analysis should be treated as indicative and interpreted with caution, and we only present relatively limited constituency-level results within this report.

³⁰ See Office for National Statistics (2011) for the relevant data for Scotland; Office for National Statistics (2022) for the data for England and Wales; and Northern Ireland Statistics and Research Agency (2023) for the data for Northern Ireland.

³¹ Data from separate censuses are used because information on the number of students from the 2022 Scottish Census was not yet available at the parliamentary constituency level.

³² In relation to the specific census date, for both the 2011 and 2021 censuses, a number of universities would have been outside of term time on the census date. However, the results from the census provide information on the *usual* address of individuals (as well as the reason for multiple addresses (i.e., student, armed forces, etc.)), so that the data will generally reflect the in-term residence arrangements of students.

³³ See Section 2.1.



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