

The benefits and costs of international higher education students to the UK economy

Report for the Higher Education Policy Institute, Universities UK International, and Kaplan International Pathways

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Foreword

This is the third iteration of this important research looking at the economic benefits to the UK of hosting so many international students in higher education. The research shows the economic benefits – less any costs – of international students and family members living and studying in the UK. It analyses the direct, indirect, and induced benefits to create a comprehensive picture of the economic impact.

The original version showed that, in 2015/16, the gross benefits from just one cohort of overseas students amounted to £26.3 billion and the net benefits were £23.6 billion (figures updated to 2021/22 prices). The second version showed that, for the 2018/19 cohort, the benefits were £31.3 billion (gross) and £28.2 billion (net). This third report shows that the benefits associated with the 2021/22 cohort are much higher still, at £41.9 billion (gross) and £37.4 billion (net).

Regionally, London does especially well, as four-in-10 first-year students in London come from overseas. Since the previous report, there have also been particularly notable increases in the proportion of international students in Scotland and Northern Ireland – perhaps reflecting the reality that, in these parts of the UK, international students' fees have long been making up the substantial shortfalls in income for educating domestic students. In Northern Ireland, the number of international students has (nearly) quadrupled since 2018/19, albeit from a low base.

Unlike other available assessments, this report breaks the data down for all 650 parliamentary constituencies throughout the UK. Some assumptions have to be made when doing this because the data are imperfect. Therefore, the constituency-level numbers should be treated cautiously - but the results are nonetheless staggering. For example, international students based in the single constituency of Glasgow Central are worth £292 million to the UK economy alone, which is £2,720 per local resident.

International students in the top 10 constituencies together contribute over £2.6 billion to the UK – and that does not include the additional contributions made by those who stay in the UK to work after completing their studies. Oxford and Cambridge both do well but, in contrast to many other higher education rankings, these cities only just make the top 20. International students study in all parts of the UK and the economic benefits they generate are spread across the whole country.

They come to study the whole range of higher education courses, from pathway provision to PhDs. Overall, it is a story of considerable success, with international students diversifying campuses, enriching the learning environment, and helping to ensure the financial sustainability of our world-class higher education sector. The benefits also include boosting the UK's world-leading research, enabling universities

to offer a much wider range of courses than would otherwise be viable, and, increasingly, cross-subsidising the teaching of home undergraduate students, which – thanks to recent high inflation levels – now makes a loss even in England, where annual tuition fees are (typically) £9,250.

The very substantial rise in the number of international students partly reflects the relative advantages enjoyed by the UK, such as the global recognition of UK qualifications, teaching in English, and our one-year Master's courses, which are particularly popular among international students. But the growth has occurred within a changing policy context that has dramatically shaped recruitment in recent years. Between 2010 and 2016, there was no growth in international student numbers, as Home Office policies worked to limit incoming students. In 2019, the Government launched the *International Education Strategy* with a national target to increase the number of international students in the UK. The clarity of the national message and alignment of policy enabled the UK to achieve the target ahead of time.

There have been other determinants of demand too, such as fluctuating exchange rates and the relative openness of the UK higher education system even in the depths of COVID. As expected, Brexit has had a dramatic impact on the number of incoming EU students: until recently, they made up one-in-four of all international students arriving in the UK, but now – thanks to increases among non-EU students as well as falls in the number of EU students – they make up just one-in-12 of all new international students.

The shifting policy environment is perhaps most clearly exemplified by the approach to post-study work visas for international students interested in staying in the UK to contribute to the labour market. Post-study work rights were introduced in Scotland in 2005, adopted UK-wide in 2008, abolished in 2012, reintroduced in 2021, and are now rumoured to be under threat once more. News outlets in other countries track each twist and turn in real time. This matters because post-study work rights affect the pipeline of talent flowing into the UK as well as the ability of employers to find and recruit the high-level and niche skills they so desperately need.

Another example of a tension in policy is around diversifying student cohorts. For some time, institutions have been expected to widen their geographical base beyond China and East Asia. While demand from Chinese students to study in the UK remains strong and we hope to sustain this, institutions have sought to broaden their intakes by recruiting more international students from other parts of the world, especially India and Nigeria. Yet the response of policymakers to this shift has not always been positive, for example because students from these regions are typically older and have a higher likelihood of bringing dependants with them.

As a result, the UK's current policy stance on international students lacks certainty and direction. If there are to be changes, then it is vital that they are based on sound

evidence. This report is designed to update and strengthen the existing evidence base on the current economic impact while acknowledging that the contribution of international students goes far beyond this.

We hope it will be read closely by those in the corridors of power as the Government considers the key related issues of national and regional growth and prosperity, jobs, and the UK talent pipeline. As we approach the next electoral cycle, we also hope the local, regional, and national data will be absorbed by people across the political spectrum who wish to represent their own area at Westminster. Every single part of the UK benefits from the presence of international students, and every area stands to lose out from any reduction to their number.

While the purpose of this report is to highlight the economic benefits of international students for policymakers and other interested parties, none of the organisations involved believes it should be the final word. The report should be read alongside other evidence on the many non-financial benefits, which include a richer learning environment for all students, more diverse campuses and local communities, and a huge boost to UK soft power globally.

The most important lesson for policymakers among the hundreds of datapoints that follow is perhaps that a more joined-up approach towards international students across different government departments, co-ordinated by the centre of Whitehall, would be preferable to the damaging rumours, leaks and counter-leaks heard from different departments over recent years. Voters rightly expect secure borders and clear rules, but the presence of international students also enjoys huge public support, improves our education system, helps employers, and boosts the UK's reputation abroad.

In general, international students come here, diversify our educational institutions, cross-subsidise UK research and support UK businesses, before either going home with warm feelings about the UK or staying here and contributing to the UK economy. It is a powerful UK success story.



Nick Hillman,
Director of HEPI



Jamie Arrowsmith,
Director of UUKi



Linda Cowan,
Managing Director of Kaplan International Pathways

Executive Summary

With **679,970** international students studying for qualifications at higher education institutions across the United Kingdom – equivalent to **24%** of all higher education (HE) students in 2021/22 – international students contribute significantly to our economic and social prosperity, both in the short term during their studies as well as in the medium to longer term after they graduate.

Given the continuing importance of international students as a source of export revenues, alongside the ongoing political debate relating to potential visa restrictions for international students' dependants and potential reductions in their post-study work visa rights, London Economics were commissioned by the **Higher Education Policy Institute** (HEPI), **Universities UK International** (UUKi), and **Kaplan International Pathways** to update our previous analysis of the **benefits** and **costs** to the UK economy associated with international students. Following two previous studies estimating these impacts for 2015/16 and 2018/19 (London Economics (2018) and London Economics (2021)), the analysis updates the previous results by focusing on the cohort of international students who started higher education qualifications in the UK in 2021/22.

Key findings

- The **total net impact** on the UK economy of the cohort of first-year international students enrolled at UK HEIs in the 2021/22 academic year was estimated at **£37.4bn** across the duration of their studies. Approximately **£3.9bn** of this net impact was associated with EU domiciled students, while the remaining **£33.5bn** was generated by non-EU domiciled students in the cohort.
- The estimated total benefit to the UK economy from 2021/22 first-year international students over the duration of their studies was approximately **£41.9bn**, while the estimated total costs were **£4.4bn**. This implies a benefit-to-cost ratio of **9.4**.
- The **net economic impact per student** was estimated to be **£125,000** per EU domiciled student, and **£96,000** per non-EU student. In other words, every **9** EU students and every **11** non-EU students generate £1m worth of net economic impact for the UK economy over the duration of their studies.
- Reflecting the **40%** increase in the number of international students between 2018/19 and 2021/22, the net economic impact has increased from **£28.2bn** for the 2018/19 cohort to **£37.4bn** for the 2021/22 cohort (a **33%** increase in real terms). The impact has also increased by **58%** in real terms since 2015/16 (from **£23.6bn** in 2015/16 to **£37.4bn** in 2021/22).

- The economic impact is spread across the entire UK, with international students making a **£58m net economic contribution to the UK economy per parliamentary constituency** across the duration of their studies. This is equivalent to **£560** per member of the resident population.

Overview of the analysis

Mirroring the approach applied throughout our previous analyses of this type, we estimate the **economic benefits** of international students in terms of:

- The **tuition fee income** generated by international 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 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 students (or their dependants) while in employment in the UK – during and/or after their studies[1];
- 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 their stays; and
- The **wider cultural** and **societal impacts** associated with a more diverse population.

[1] 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 studying in the UK and who enter and remain in the UK labour market after graduating (see London Economics (2019)).

In relation to the **public costs** associated with hosting international 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).[2]

Level of analysis

In addition to the total UK-wide impact, we linked international 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 analysis of the contribution of international students to UK economic activity by **parliamentary constituency**, using available Census information on the number of students residing in each parliamentary constituency[3].

The 2021/22 cohort of international students

The analysis focuses on the aggregate economic benefits and costs to the **UK economy** associated with the approximately **381,000** international first-year students who *commenced* their higher education studies in the UK in 2021/22. We take account of the total impacts associated with these students **over the entire duration of their study in the UK** (adjusted for completion rates). In other words, this approach measures the impact of a single cohort of international students over the course of their studies.

[2] While our previous studies also included the costs of public teaching grant and tuition fee support that was previously provided to EU students, given the significant post-Brexit changes in eligibility rules, these types of funding generally no longer apply to EU students who start higher education qualifications in the UK from 2021/22 onwards.

[3] The data on residency by parliamentary constituency include both UK and non-UK domiciled students. 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. As such, the analysis by parliamentary constituency will not fully accurately reflect the true picture in some constituencies - especially those where there may be a particularly high concentration of international students.

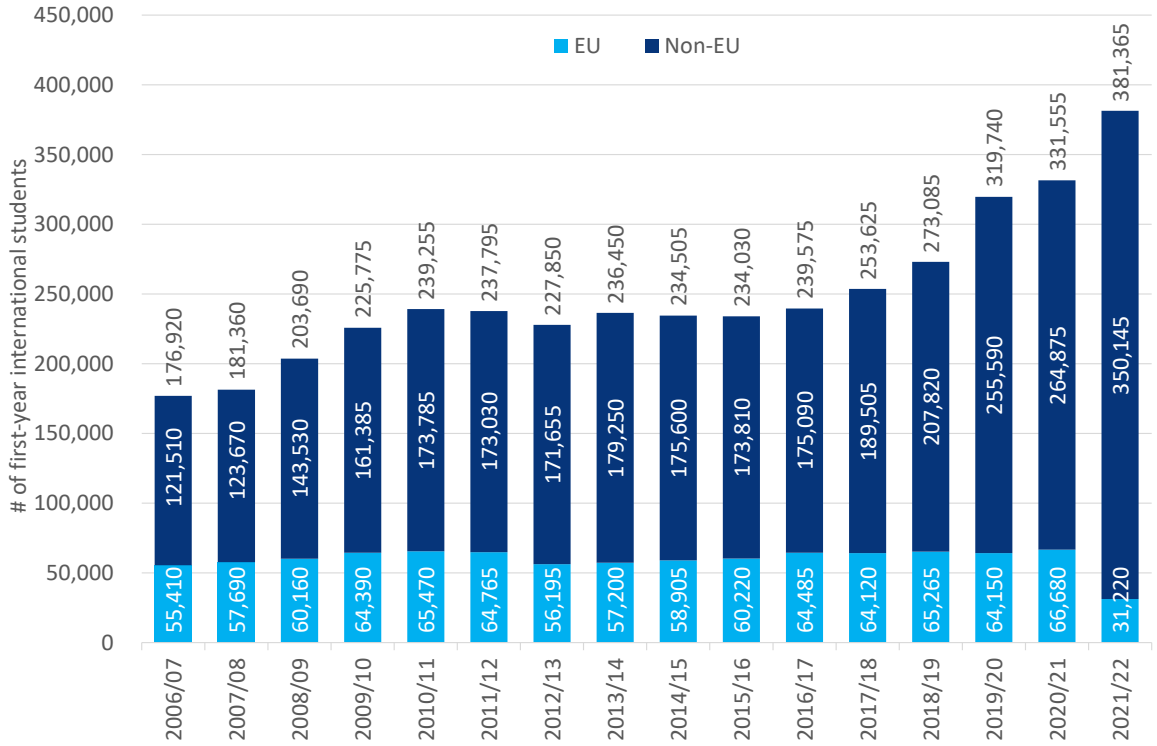
Changes over time

Figure 1 presents the number of first-year international students that have come to the United Kingdom for the purposes of study since 2006/07. Reflecting the attractiveness of the UK higher education offer, from approximately **177,000** students at the start of the period, enrolment increased to around **235,000** between 2013/14 and 2016/17, and to **273,000** in 2018/19. More recently, these numbers have increased even further: in 2021/22, approximately **381,000** international first-year students entered higher education in the United Kingdom. This represents a **116%** increase since 2006/07 (i.e., first-year international students have more than doubled since 2006/07), and a **40%** increase since 2018/19 alone.[4] [5]

[4] The particularly large increase in 2021/22 is likely to be partially driven by deferrals from the 2020/21 academic year due to the Covid-19 pandemic.

[5] These figures should be seen within the context of a hypercompetitive global market for international students, where major anglophone host markets (including the US, Canada, and Australia) and regional hubs are continuously working towards enhancing their offer to international students.

Figure 1 International first-year students enrolled in UK HE, 2006/07 to 2021/22



Note: All student numbers are rounded to the nearest 5. Note that the data prior to 2014/15 excluded students studying at alternative providers, whereas the data from 2014/15 onwards *include* these providers. The figure includes all levels of study (i.e., both undergraduate and postgraduate students).
Source: London Economics' analysis of HESA (2023c).

Domicile

Approximately **92%** (**350,145**) of international first-year students in 2021/22 were domiciled outside the EU (a **68%** *increase* since 2018/19), with only **8%** (**31,220**) domiciled within the EU (a **52%** *decline* since 2018/19, as from 2021/22 onwards, EU students without settled status starting HE qualifications in the UK typically require a student visa and are no longer eligible to pay 'home' fees or receive public tuition fee support).

In terms of the specific non-EU countries that are associated with the greatest number of students coming to the UK, **China** remains the largest 'sender', with **99,965** first-year Chinese students entering UK higher education in 2021/22 (i.e., approximately **one in four** international students in the 2021/22 cohort originated from China[6]). **India** and **Nigeria** were the next most prolific (with Nigeria having recently overtaken the United States), with **87,045** and **32,945** first-year students enrolled in 2021/22, respectively.

[6] In the 2018/19 cohort, approximately **one in three** international students originated from China.

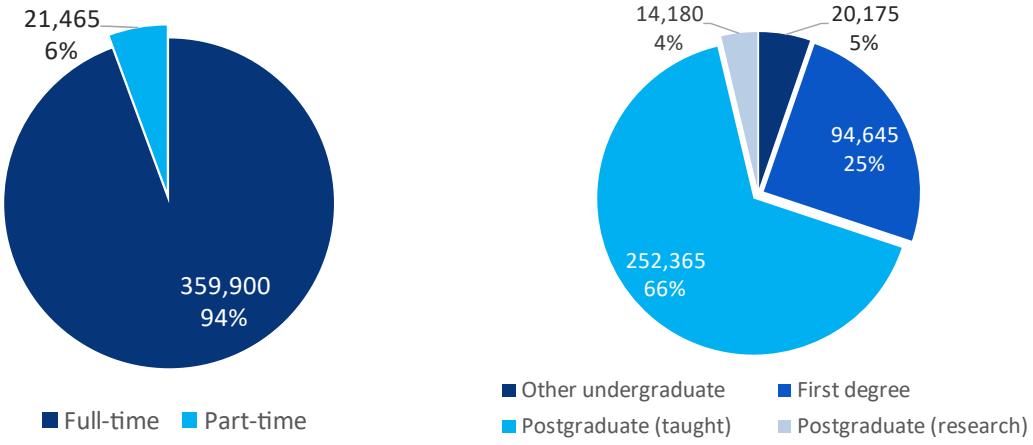
Following the UK's exit from the EU, the country providing the greatest number of EU domiciled first-year students in 2021/22 was **Ireland**, with **4,415** students coming to the United Kingdom, followed by **France** (**4,355**) and **Germany** (**3,695**). Compared to 2018/19, there has been a substantial decline in the number of first-year students from almost all major EU contributor countries except Ireland.

Level and mode

In terms of study mode, most international students in the cohort (**94%**) were studying on a full-time basis, with only **6%** of students undertaking qualifications on a part-time basis.

Considering the level of study undertaken, **66%** (**252,365**) of students in the cohort were undertaking **taught postgraduate degrees**, with a further **14,180** students (**4%**) undertaking **postgraduate research degrees**. Around **114,820** students (**30%**) were engaged in undergraduate qualifications, of which **94,645** (**25%**) were undertaking **first degrees** and **20,175** (**5%**) were enrolled in **other undergraduate qualifications**.

Figure 2 International first-year students enrolled in UK HE in 2021/22, by level and mode



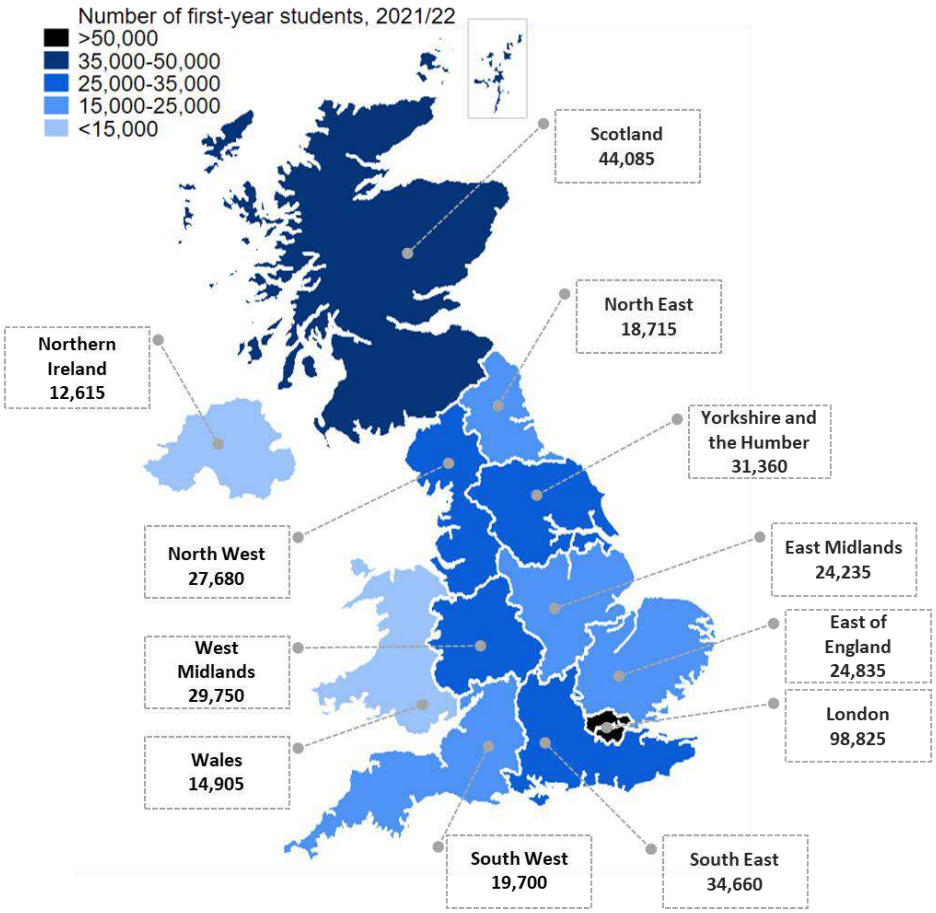
Note: All student numbers are rounded to the nearest 5.
Source: London Economics' analysis of HESA (2023c)

Location of study

As in 2018/19, international students in the 2021/22 cohort are spread across the entire United Kingdom (see Figure 3) - and all regions have seen strong increases in the number of inbound international first-year students. In England, there were approximately **98,825** first-year students enrolled with London-based higher education institutions, with a further **34,660** attending institutions in the South East. Demonstrating the spread of international students across England, there were a further **31,360** students studying in Yorkshire and the Humber, **29,750** in the West Midlands, **27,680** in the North West, **24,835** in the East of England, **24,235** in the East

Midlands, and **18,715** in the North East. In relation to the other UK home nations, there were **44,085** international first-year students studying in Scotland, **14,905** in Wales, and **12,615** in Northern Ireland.

Figure 3 Number of international first-year students in 2021/22 by region



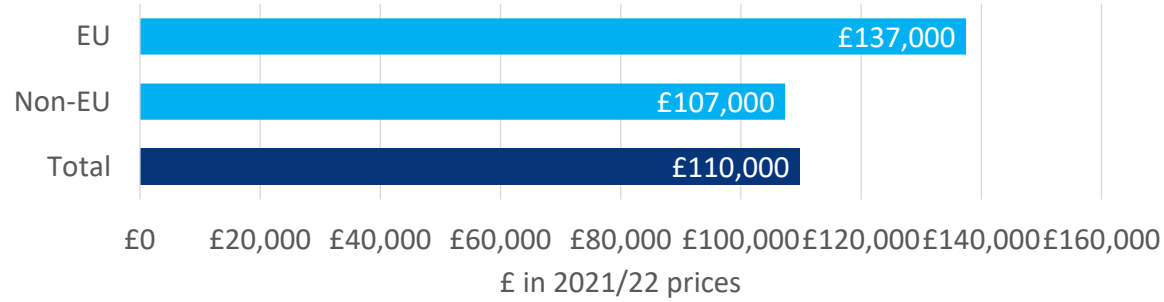
Note: All student numbers are rounded to the nearest 5.

Source: London Economics' analysis of HESA (2023c), Office for National Statistics (licensed under the Open Government Licence v.3.0) and OS data © Crown copyright and database right 2023.

Economic benefits associated with international students

Combining the direct, indirect, and induced economic benefits of the tuition fee, non-fee and visitor income associated with international students in the 2021/22 cohort, the total benefit to the UK economy associated with a typical **EU domiciled student** was estimated at approximately **£137,000** over the duration of their studies (see Figure 4). The comparable estimate per **non-EU student** stood at approximately **£107,000**. The difference between the two estimates is primarily driven by differences in the composition of the EU vs. non-EU cohort, as EU students are more likely to undertake first degrees (with a relatively longer study duration) as compared to postgraduate taught degrees (with a shorter study duration) – so that the benefits associated with EU students accrue over a longer period.

Figure 4 Total benefit per student associated with the 2021/22 cohort, 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 2021/22 cohort of first-year students, we estimate the total economic benefits of international students to the UK economy to be approximately **£41.9bn** over the entire period of their studies, of which **£4.3bn** is generated by EU students, and **£37.6bn** is generated by non-EU students (see Table 1).

Table 1 Total benefits associated with the 2021/22 cohort, by domicile and type of benefit

Type of benefit	EU	Non-EU	Total
Fee income	£2.4bn	£20.2bn	**£22.6bn**
Non-fee income	£1.8bn	£16.7bn	**£18.6bn**
Visitor income	£0.1bn	£0.6bn	**£0.7bn**
Total	**£4.3bn**	**£37.6bn**	**£41.9bn**

Note: Values are rounded to the nearest £0.1 billion. 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***

Exchequer costs associated with international students

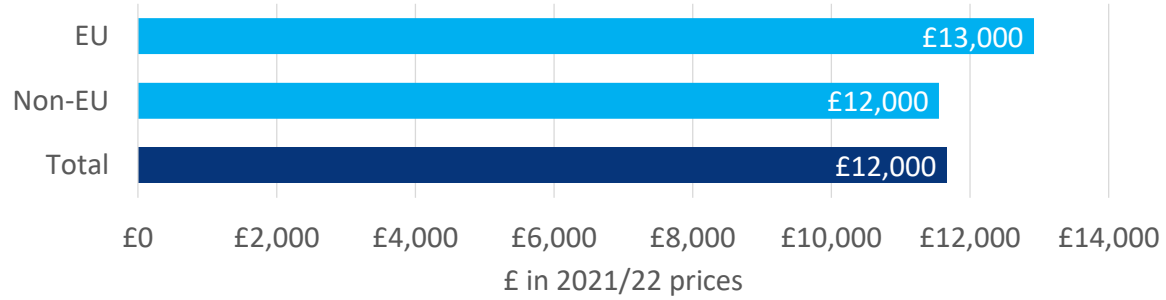
Following the UK's exit from the European Union and the resulting significant changes in the eligibility rules for EU domiciled students, from 2021/22 onwards, these students are generally no longer eligible for public teaching grant or student support funding.[7] Hence, our analysis focuses exclusively on the public purse costs of hosting international students in relation to the provision of general public

[7] This applies to first-year EU domiciled students starting higher education qualifications in the UK from 2021/22 onwards.

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 student were estimated at **£13,000** (Figure 5), while the comparable figure per non-EU student was estimated at **£12,000**. The (slightly) higher costs per EU student are again primarily driven by their higher likelihood to undertake courses with longer study durations (i.e., first degrees), which outweighs the fact that non-EU students are more likely to bring dependants to the UK than EU students (and the number of dependants associated with non-EU students has increased significantly in recent years[8]).

Figure 5 Total cost per student associated with the 2021/22 cohort, 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

Aggregating across the 2021/22 cohort of first-year students, the total public cost associated with these international students and their dependants was estimated to be **£4.4bn**. Of this total, approximately **£0.4bn** is associated with supporting EU domiciled students and their dependants, with the remaining **£4.0bn** associated with providing public services to non-EU students and their dependants (Table 2).

Table 2 Total costs associated with the 2021/22 cohort, by domicile and type of cost

Type of cost	EU	Non-EU	Total
Teaching grants	-	-	-
Student support	-	-	-
Other public costs	£0.4bn	£4.0bn	**£4.4bn**
Total	**£0.4bn**	**£4.0bn**	**£4.4bn**

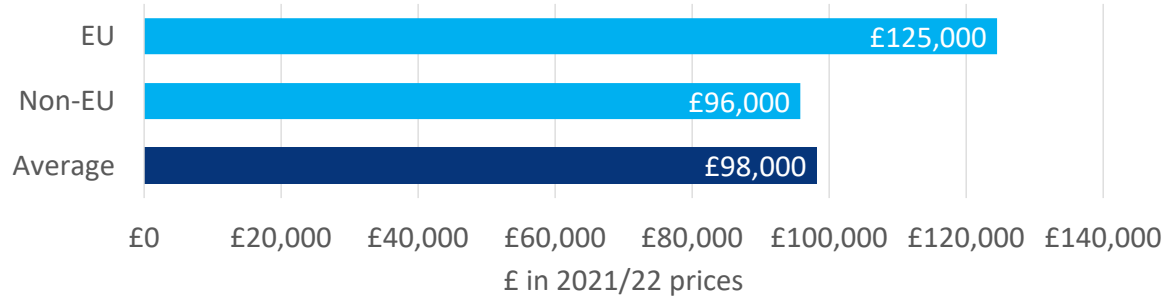
Note: Values are rounded to the nearest £0.1 billion. All estimates are presented in 2021/22 prices and discounted to reflect net present values. Totals may not sum due to rounding. ***Source: London Economics' analysis***

[8] For more information, see Section 3.3.1.

Net economic impact of international students

The **net economic impact** per student was estimated to be **£125,000** per 'typical' EU domiciled student in the 2021/22 cohort, and **£96,000** per non-EU domiciled student (see Figure 6). In other words, **every 9 EU students** and **every 11 non-EU students** generate **£1m worth of net economic impact for the UK economy** over the duration of their studies.

Figure 6 Net impact per student associated with the 2021/22 cohort, by domicile

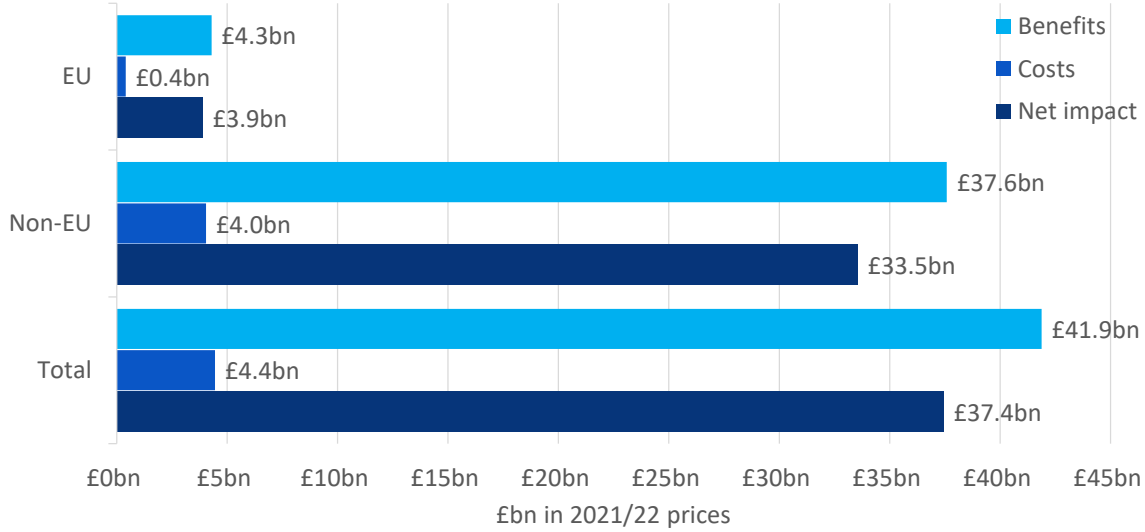


Note: Values per student are rounded to the nearest £1,000. All estimates are presented in 2021/22 prices and discounted to reflect net present values. ***Source: London Economics' analysis***

Expressed in terms of **benefit-to-cost ratios**, dividing the (gross) economic benefit associated with EU domiciled and non-EU domiciled students (**£137,000** and **£107,000**, respectively) by the corresponding public costs (**£13,000** and **£12,000**, respectively), the analysis suggests that there is a benefit-to-cost ratio of approximately **10.6** and **9.3** associated with hosting EU and non-EU students in the UK, respectively (and **9.4** on average across both domiciles).

Aggregating across the total cohort of first-year international students enrolled at UK HEIs in the 2021/22 academic year, **the total net impact of international students on the UK economy was estimated to be £37.4bn** (see Figure 7). Approximately **£3.9bn** of this net impact was associated with EU domiciled students, while the remaining **£33.5bn** was generated by non-EU domiciled students in the cohort.

Figure 7 Net impact associated with the 2021/22 cohort, by domicile



Note: Values are rounded to the nearest £0.1 billion. 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

Change in net impact over time

In Figure 8, we provide a comparison of the net economic contribution associated with the 2015/16, 2018/19, and 2021/22 cohorts of international students. Reflecting the **40%** increase in the number of international students between 2018/19 and 2021/22 (entirely driven by a significant increase in enrolment amongst non-EU domiciled students), the net economic impact has increased from **£28.2bn** for the 2018/19 cohort to **£37.4bn** for the 2021/22 cohort (a **33%** increase in real terms)[9]:

- The **economic benefits** have risen from **£31.3bn** to **£41.9bn** (**34%**) since 2018/19, driven predominantly by the substantial increase in the size of the non-EU student cohort (which outweighs the decline in the number of EU students in the cohort).
- The **public costs** of hosting international students have also increased since 2018/19, and by a relatively larger proportion (from **£3.1bn** to **£4.4bn** (**43%**)). These costs have increased despite the withdrawal of student support and teaching grants for EU students, and are driven by an increase in the Exchequer cost of providing general public services to international students and their dependants, in turn, due to the increase in the size of the non-EU student cohort; an increase in the cost per head of providing public services

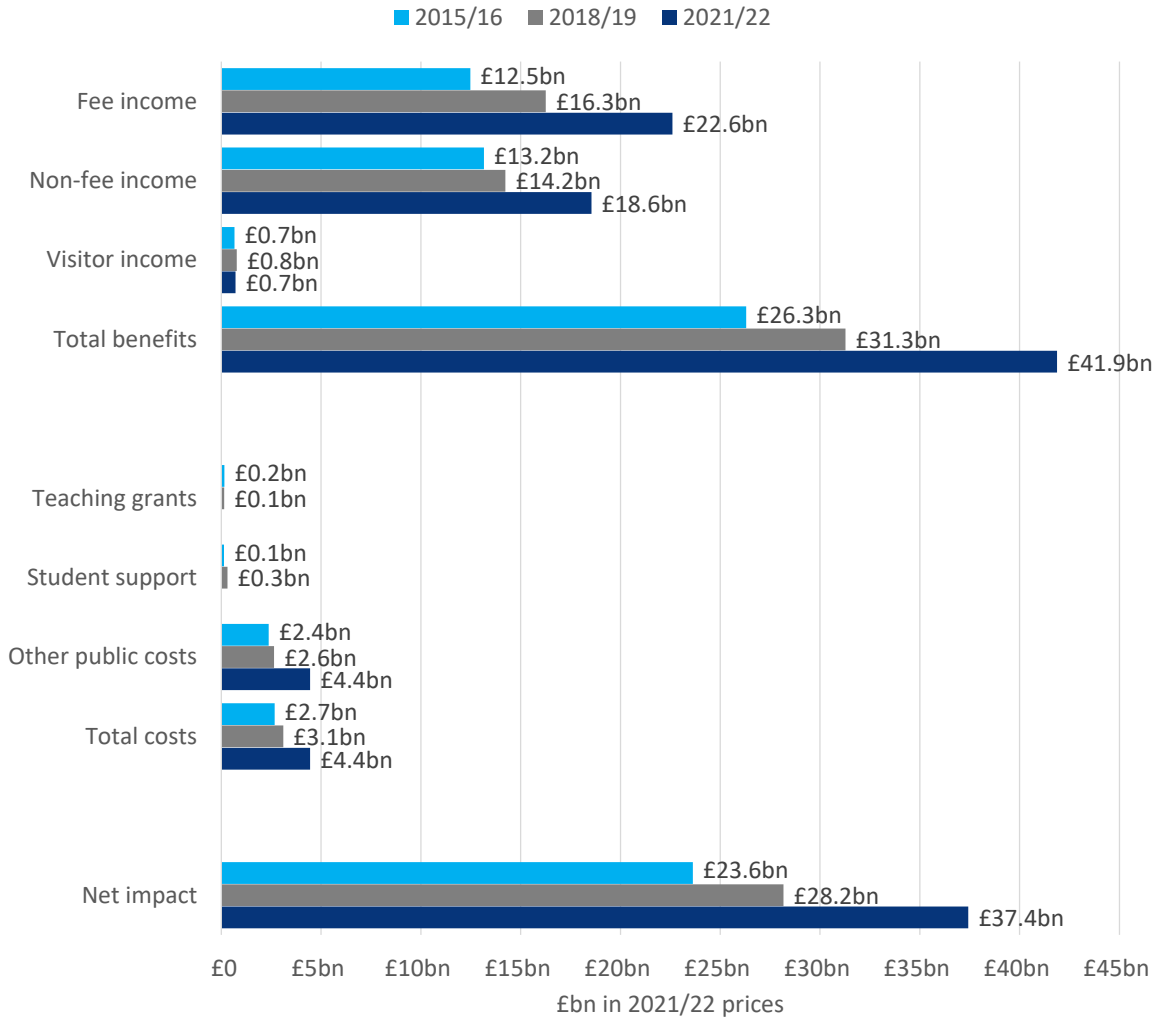
[9] The previous results for 2015/16 and 2018/19 have been converted to 2021/22 prices, to allow for a comparison in real terms.

to international students and their dependants; and an increased likelihood of non-EU (postgraduate) students bringing dependants to the UK.[10]

The net economic impact has increased even more substantially when compared to 2015/16, having risen from **£23.6bn** in 2015/16 to **£37.4bn** in 2021/22 (equivalent to a **58%** increase in real terms).

[10] The number of dependants per 1,000 non-EU students has increased from approximately 61 per 1,000 students in 2017/18 to 216 in 2021/22 (a 254% increase). Despite this significant increase in the number of dependants joining non-EU students in the UK and the resulting increase in the cost of providing public services associated with these students, the net economic impact on the UK per non-EU student continues to be very substantial. For the average cost per non-EU student to equal the average benefit per non-EU student, these students would need to bring approximately 10,400 dependants per 1,000 students (i.e., 10.4 dependants per student, or around 48 times the current incidence).

Figure 8 Net impact associated with the 2015/16, 2018/19 and 2021/22 cohorts



Note: Values are rounded to the nearest £0.1 billion. 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

Net impact by parliamentary constituency

Table 3 summarises the average net impact per parliamentary constituency, by UK region. On average, international students in the 2021/22 cohort make a **£58m net economic contribution to the UK economy per constituency**. This is equivalent to **£560** per member of the resident population.

The average impact was highest for parliamentary constituencies in **London** (with an average net impact of **£131 million** per constituency, equivalent to **£1,040** per resident). The average impact per parliamentary constituency in the **North East** and **Scotland** was estimated at **£640** and **£750** respectively per member of the resident population; between **£500** and **£510** per member of the resident population in the **East and West Midlands**, **Northern Ireland**, and **Yorkshire and the Humber**; and

between **£360** and **£390** in the **North West**, **South East**, **South West**, **the East of England**, and **Wales**.

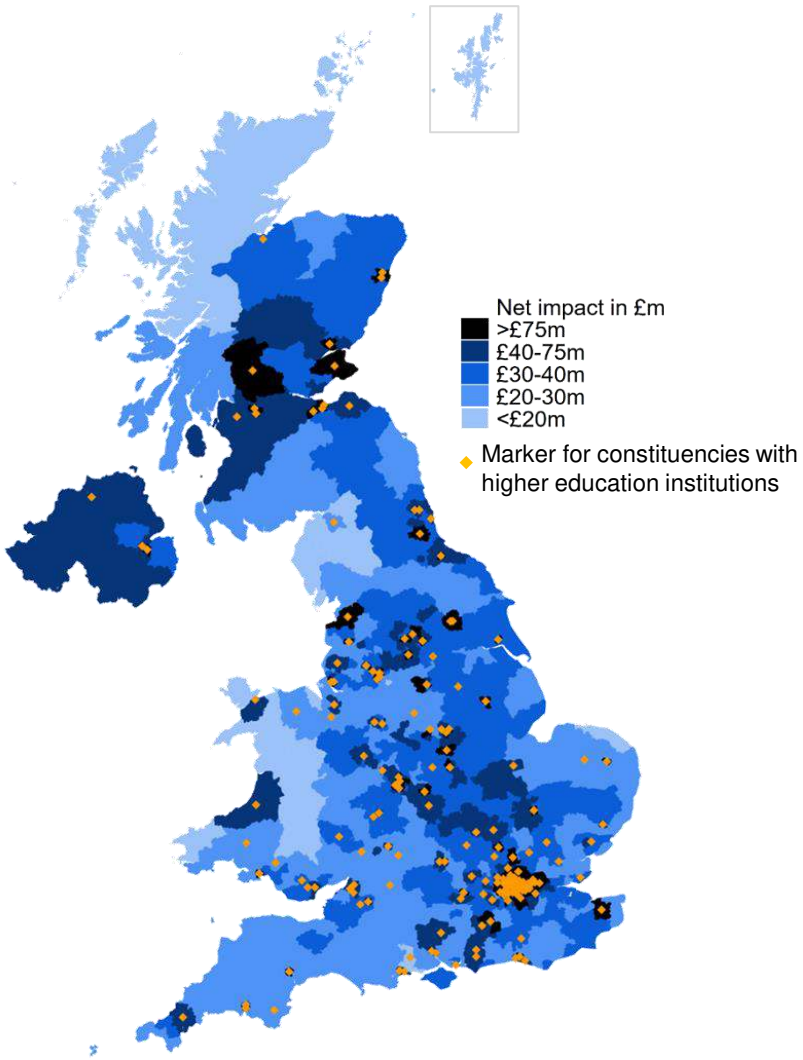
Table 3 Average impact associated with the 2021/22 cohort per parliamentary constituency, by region

Region	# of 1st year students	Benefits	Costs	Net impact	
				Total	Per resident
East of England	430	£44m	£4m	**£40m**	**£360**
East Midlands	525	£60m	£5m	**£55m**	**£500**
London	1,355	£150m	£19m	**£131m**	**£1,040**
North East	645	£68m	£6m	**£62m**	**£640**
North West	370	£45m	£4m	**£41m**	**£390**
South East	415	£47m	£4m	**£43m**	**£380**
South West	360	£43m	£4m	**£39m**	**£370**
West Midlands	505	£58m	£5m	**£52m**	**£500**
Yorkshire & the Humber	580	£60m	£6m	**£54m**	**£510**
Wales	375	£36m	£4m	**£31m**	**£390**
Scotland	745	£80m	£9m	**£71m**	**£750**
Northern Ireland	700	£61m	£8m	**£53m**	**£500**
Average	**585**	**£64m**	**£7m**	**£58m**	**£560**

Note: Numbers of students are rounded to the nearest 5; total estimates are rounded to the nearest £1 million; and estimates per resident are rounded to the nearest £10. All estimates are presented in 2021/22 prices and discounted to reflect net present values. Estimates of the total resident population by parliamentary constituency were based on mid-2020 population data published by the House of Commons Library (2021). 2020 data was used as it was the most recent year for which data by parliamentary constituency was available for the entire UK. ***Source: London Economics' analysis***

We further split the above net impacts by **parliamentary constituency** (Figure 9). The analysis illustrates that the contribution of international students to the UK economy is clustered around the location of higher education institutions - but also demonstrates the economic contribution made by international students across the entire United Kingdom.

Figure 9 Net impact associated with the 2021/22 cohort, by parliamentary constituency



Note: All 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.***

Table 4 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 estimated number of international first-year students resident in **Glasgow Central** (**3,060**), the analysis indicates that the contribution to the UK economy of the international students in the 2021/22 cohort resident in Glasgow Central stands at approximately **£292m**, which is equivalent to **£2,720** per member of the resident population. The other constituencies where international students make the greatest contribution to the UK economy are **Holborn and St Pancras** (**£291m** (**£1,720**)), **Sheffield Central** (**£273m** (**£1,930**)), **Nottingham South** (**£271m** (**£2,190**)), **Edinburgh East** (**£268m** (**£2,420**)) and **Newcastle Upon Tyne East** (**£264m** (**£2,560**)).

Note that there are constituencies from almost all UK regions represented on the top-20 list, with international students in **Liverpool, Riverside** (North West) contributing **£208m** (**£1,480**); **Birmingham, Ladywood** (West Midlands) contributing **£204m** (**£1,340**); **Cambridge** (East of England) contributing **£203m** (**£1,750**); and **Oxford East** (South East) contributing **£199m** (**£1,640**).

Table 4 Total costs, benefits, and net impact of international students in the top 20 parliamentary constituencies in terms of net impact

Rank	Parliamentary constituency	# of 1st year students	Benefits	Costs	Net impact	
					Total	Per resident
1	Glasgow Central	**3,060**	£330m	£37m	**£292m**	**£2,720**
2	Holborn and St Pancras	**2,995**	£332m	£41m	**£291m**	**£1,720**
3	Sheffield Central	**2,915**	£302m	£29m	**£273m**	**£1,930**
4	Nottingham South	**2,600**	£297m	£27m	**£271m**	**£2,190**
5	Edinburgh East	**2,800**	£302m	£34m	**£268m**	**£2,420**
6	Newcastle upon Tyne East	**2,765**	£292m	£27m	**£264m**	**£2,560**
7	West Ham	**2,665**	£295m	£37m	**£258m**	**£1,360**
8	Leeds Central	**2,695**	£279m	£27m	**£253m**	**£1,570**
9	Aberdeen North	**2,530**	£272m	£31m	**£241m**	**£2,370**
10	Bethnal Green and Bow	**2,480**	£275m	£34m	**£240m**	**£1,540**
11	East Ham	**2,440**	£271m	£34m	**£237m**	**£1,430**
12	Bermondsey & Old Southwark	**2,395**	£266m	£33m	**£233m**	**£1,550**
13	Poplar and Limehouse	**2,345**	£260m	£32m	**£228m**	**£1,290**
14	Glasgow North	**2,360**	£255m	£29m	**£226m**	**£2,840**
15	Dundee West	**2,185**	£235m	£27m	**£208m**	**£2,330**
16	Liverpool, Riverside	**1,890**	£230m	£22m	**£208m**	**£1,480**
17	Birmingham, Ladywood	**1,965**	£225m	£21m	**£204m**	**£1,340**
18	Cambridge	**2,185**	£226m	£23m	**£203m**	**£1,750**
19	Brent Central	**2,085**	£231m	£29m	**£202m**	**£1,370**
20	Oxford East	**1,925**	£219m	£21m	**£199m**	**£1,640**
Average (all constituencies)		**585**	**£64m**	**£7m**	**£58m**	**£560**

Note: Numbers of students are rounded to the nearest 5; total estimates are rounded to the nearest £1 million; and estimates per resident are rounded to the nearest £10. All estimates are presented in 2021/22 prices and discounted to reflect net present values. ***Source: London Economics' analysis***

1 Introduction

1.1 Background

London Economics were commissioned by the **Higher Education Policy Institute** (HEPI), **Universities UK international** (UUKi), and **Kaplan International Pathways** to estimate the benefits and costs to the UK economy associated with international higher education (HE) students studying at UK universities. Following our two previous studies estimating these impacts for the 2015/16 and 2018/19 academic years[11], this updated analysis focuses on the benefits and costs associated with the cohort of international students who started higher education qualifications in the UK in 2021/22. The 2021/22 academic year was the first year in which post-Brexit rules applied to EU domiciled students studying in the UK (i.e., where EU students were effectively subject to the same rules as non-EU students).

As with the two previous studies, the **economic benefits** of international students considered here include:

- The **tuition fee income** generated by international 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[12];
- The income associated with the **non-tuition fee (i.e., living cost) expenditure** of international students[13], as well as the subsequent **knock-on** effects of this expenditure throughout the wider economy (i.e., the indirect and induced effects); and
- The income associated with the spending of **friends and family visiting** international students whilst studying in the UK.[14] Again, this expenditure leads to subsequent **knock-on** (indirect and induced) effects throughout the UK economy.

[11] See London Economics (2018) and London Economics (2021).

[12] For more information on the multipliers used to calculate knock-on effects, see Section 3.2.2.

[13] This includes students' expenditures on **accommodation costs** (e.g., rent, council tax, bills, etc.), **subsistence costs** (food, entertainment, personal items, etc.), **direct course costs** (textbooks, journal or library subscriptions, computer equipment, etc.), **facilitation costs** (e.g., course-related travel costs), and **spending on children** (including childcare that is not related to their study).

[14] Note that the estimates of the impact associated with the visitor expenditure of friends and family visiting international students whilst studying in the UK (specifically, the estimates in the first year of study for the cohort, i.e., 2021/22 itself) were adjusted to take account of the significant disruption to international travel due to the Covid-19 pandemic in that academic year.

Importantly, this study thus considers not just the value of education exports associated with international students entering UK HE in 2021/22, but also the wider economic benefits associated with these exports.[15]

Note that there are a number of benefits that were **not** considered as part of this analysis (given the difficulty in providing adequately robust evidence and/or measuring these benefits in monetary terms). These omissions imply that the analysis will **underestimate** the true contribution of international students to the UK economy, and include:

- The **tax revenues** associated with international students (or their dependants) while in employment in the UK – either during or after their studies[16];
- The improved opportunities offered to UK domiciled students, given that a number of courses are only **viable** in the presence of sufficient numbers of international students;
- The economic benefits associated with students coming to the United Kingdom on exchange programmes[17], or students that are engaged in pre-university programmes (e.g., pathway embedded or independent college programmes, or pre-sessional English courses)[18];
- The UK's international **soft diplomatic power** internationally that results from the networks built up through hosting international students[19];
- The **global status** of UK universities, reflected in research partnerships, international research funding opportunities, and international staff recruitment;
- The longer-term **investment, business** and **trade links** that are expected to occur as a result of hosting international students in the UK; and
- The **wider cultural and societal impacts** associated with a more diverse population.

[15] Given these (and other) differences in scope, our analysis differs from the methodology underlying the estimates of UK education related exports that are regularly published by the Department for Education (2022a).

[16] While not included in the estimates here, we previously undertook a separate study to estimate the post-graduation tax revenues associated with international students studying in the UK and who enter and remain in the UK labour market after graduating (see London Economics (2019)).

[17] For example, estimates from the Department for Education (2022a) indicate that the UK export revenues associated with Erasmus students in 2020 stood at approximately £320 million.

[18] Note that the Office for National Statistics is currently in the process of expanding its estimates of UK education services exports to include the revenues associated with international students undertaking pathway programmes in the UK (expected to be included in the forthcoming estimates of education exports for 2022).

[19] For more information, see Higher Education Policy Institute (2022).

In relation to the **public costs** associated with international students, we assessed the costs associated with the provision of **general public services** to international students or their dependants (depending on eligibility). This includes the costs associated with:

- **Healthcare** (net of any NHS immigration health surcharge[20]);
- **Housing** and **community amenities**[21];
- **Pre-primary, primary and secondary-level education** received by dependent children;
- **Public order and safety**[22];
- **Defence;**
- **Economic affairs**[23];
- **Recreation**, **culture**, and **religion**;
- **Environmental protection**[24];
- Other **general public services**[25];
- **'Non-identifiable' public expenditure** that is incurred on behalf of the UK as a whole (e.g., expenditure relating to the servicing of the national debt); and
- **Expenditure on overseas activities** (e.g., diplomatic activities).

The analysis focuses on these benefits and costs associated with the **381,365** international students who *started* higher education qualifications in the United Kingdom in the 2021/22 academic year (which is equivalent to **30%** of all first-year students enrolled in UK higher education in that year). We account for the impact associated with these students **over the entire duration of their study in the UK** (adjusted for completion rates).

In addition to the benefits and costs at the UK level, to understand the contribution at a **regional level**, we linked international students to the location of the higher education institution (HEI) they attended, allowing us to estimate the benefits to the UK economy originating from each region, as well as the public costs by region.

[20] While international students and their dependants are eligible for UK public healthcare, they must pay a compulsory annual NHS immigration health surcharge towards their healthcare costs.
[21] E.g., including housing developments for local authority and other social housing; water supply; or street lighting services.
[22] E.g., including the provision of police or fire protection services.
[23] E.g., including the provision of transport services (including national and local roads, local public transport, and railway services).
[24] E.g., including public waste management.
[25] E.g., including the costs of executive and legislative organs, financial and fiscal affairs, and external affairs.

The analysis was also broken down by **parliamentary constituency**. For this, we used information from the 2021 and 2011 censuses[26] on the number of total full-time students (including both UK domiciled and non-UK domiciled students) – at any level of education - residing in each constituency[27]. We then apportioned the estimated costs and benefits at the regional level according to this distribution of students by constituency.

1.2 The impact of Brexit

Compared to our previous analysis of the economic costs and benefits of international HE students in the UK[28], the UK's exit from the European Union has had several significant impacts on the estimated economic effect associated with EU domiciled students studying in the UK, with 2021/22 being the first academic year in which post-Brexit rules applied to these students.

In relation to **economic benefits** associated with international students, pre-Brexit, EU students were eligible for 'home' fee status (i.e., they were charged the same level of tuition fees as UK domiciled students studying in the UK[29]). However, following the end of the Brexit transition period, EU domiciled students starting HE qualifications in the UK from 2021/22 onwards are typically no longer eligible to pay 'home' fees – since, in general, only EU nationals with pre-settled or settled status (under certain residency conditions) in the UK are eligible for these (lower) fees.[30] We expect that the vast majority of first-year EU domiciled students starting HE qualifications in the UK in 2021/22 do *not* have settled or pre-settled status, and therefore assume that all EU domiciled students in the cohort are charged the same

[26] Data from the 2021 Census was only available for England and Wales. In contrast, for Scotland and Northern Ireland, comparable information from the most recent census is not yet available (due to Covid-19 related delays). As a result, data from the 2011 Census was used to achieve a parliamentary constituency breakdown for Scotland and Northern Ireland.

[27] For more information on the underlying data, and associated caveats, see Section 3.2.3.

[28] Again, see London Economics (2018) and London Economics (2021).

[29] Specifically, institutions were obliged to charge the same tuition fees to EU domiciled students studying in England, Wales, Scotland, or Northern Ireland as for English students studying in England, Welsh students studying in Wales, Scottish students studying in Scotland, and Northern Irish students studying in Northern Ireland (respectively).

[30] The eligibility rules for home fee status and student finance from the 2021/22 academic year following the UK's exit from the EU (Department for Education, 2022b) indicate that EU nationals with settled status can be awarded home fee status and fee and maintenance support if they have been resident in the UK (and Islands) for at least 3 years. For EU nationals with pre-settled status, the rules state that 'in practice, the Student Loans Company (SLC) will accept pre-settled status, together with ID documentation, as evidence for the purposes of awarding student support to EU, other EEA and Swiss nationals and their family members. We anticipate that providers will take the same approach when awarding home fee status where the student has 3 years' residence in the UK, Gibraltar, EEA, Switzerland or the British/EU overseas territories'.

fees as non-EU students (which are typically much higher than the tuition fees charged to 'home' students).[31]

In relation to the **public costs** associated with international students, in addition to the above-described costs of providing general public services, our two previous studies also included the cost of public **teaching grants** to fund institutions' provision of teaching and learning activities for EU domiciled students, as well as the costs associated with public **tuition fee support** (through loans and/or grants) provided to EU domiciled students. However, following the end of the Brexit transition period, only EU nationals with pre-settled or settled status in the UK are generally eligible for these types of funding. Again, we expect that most EU domiciled students in the 2021/22 cohort did not hold pre-settled or settled status, and we therefore assume that there are no public teaching grant costs or student support costs applicable to the cohort.[32] [33]

Given these simplifying assumptions, note that our analysis is likely to overestimate the economic benefits and underestimate the public costs associated with EU domiciled students starting HE qualifications in the UK in 2021/22. However, note that only approximately **8%** of students in the 2021/22 cohort of international students in the UK were domiciled in the EU (see Section 2.2), and the resulting net economic impact associated with these students is relatively small (see Section 6), so these assumptions are expected to only have a relatively minor impact on the total estimates.

[31] The Higher Education Statistics Agency (HESA), which publishes key information on the size and characteristics of the 2021/22 cohort of international HE students in the UK, does not collect data on the number of EU domiciled students that hold settled or pre-settled status in the UK. In the absence of this information, we have assumed that no EU domiciled students in the 2021/22 cohort have settled or pre-settled status, i.e., that all of these students pay the same fees that are charged to non-EU students. Note that HESA's definition of domicile states that a student's domicile is the 'country the student lived in for non-educational purposes before starting their course' (HESA, 2023d), but does *not* capture students' nationality (i.e., HESA's definition does not align exactly with the definition of EU students in the Department for Education's eligibility rules for home fee status and student finance (see Department for Education, 2022b).

[32] Note that different rules apply to Irish citizens living in the UK or Ireland, as these students are covered by the UK's Common Travel Area arrangement with Ireland, and are generally eligible for home fee status (and therefore supported by public teaching grants) as well as public tuition fee and maintenance support subject to meeting the eligibility criteria on the same basis as UK nationals. Again, our analysis does not take account of these special arrangements for students from the Republic of Ireland (i.e., the fact that these students would be charged 'home' fees and be eligible for public tuition fee support and teaching grant funding) – though note that only approximately **14%** of EU domiciled students in the 2021/22 cohort (and roughly **1%** of all international students in the cohort) were domiciled in Ireland (see Section 2.2 for more information).

[33] In addition, in relation to the costs of providing general public services to international students and their dependants, we assume that, in general, EU students are now no longer eligible for any public social security benefits, and are obliged to pay compulsory annual NHS immigration health surcharge towards their healthcare costs. For more information, see Section 3.3.

1.3 Structure of this report

The remainder of this report is structured as follows:

- In Section 2, we provide an overview of the **characteristics of the cohort of international students commencing their studies at UK higher education institutions in 2021/22**.
- Section 3 describes the **methodology** underlying the analysis.
- In Section 4, we provide estimates of the **benefits** to the UK economy associated with international students in the 2021/22 cohort.
- In Section 5, we focus on the **public purse costs** associated with hosting these international students and their dependants in the UK.

Finally, in Section 6, we combine the information on benefits and costs to present the **net impact** of these international students on the **UK economy** – in **aggregate**, **by region**, and **by parliamentary constituency**.

2 The 2021/22 cohort of international students in the UK

2.1 Number of first-year students over time

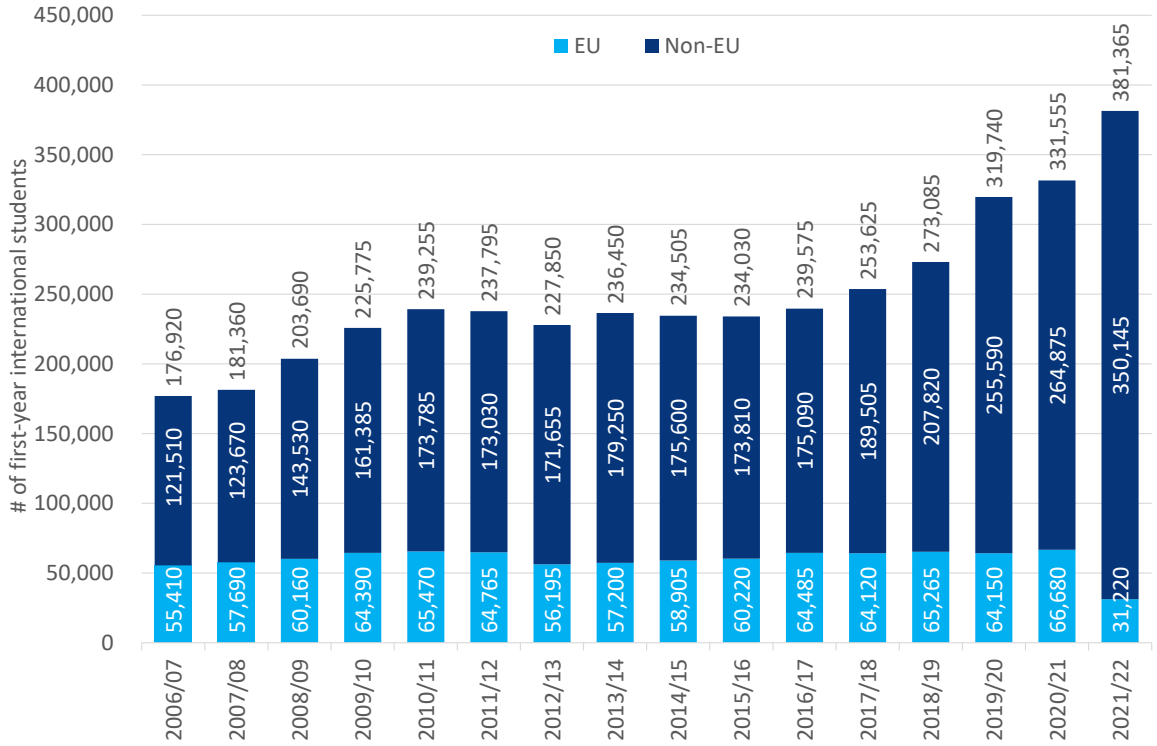
Figure 10 presents the number of first-year international students enrolled in UK higher education since 2006/07. Reflecting the attractiveness of the UK higher education offer, the number of international enrolments has more than doubled over the period, from approximately **177,000** students in 2006/07 to **381,000** students in 2021/22.

There has been a particularly sharp increase in the number of international students since 2018/19 (the year underlying our most recent previous analysis[34]), with an additional **108,000** enrolments in 2021/22 (equivalent to a **40%** increase as compared to 2018/19).[35]

[34] Again, see London Economics (2021).

[35] The particularly large increase in 2021/22 is likely to be partially driven by deferrals from the 2020/21 academic year due to the Covid-19 pandemic.

Figure 10 International first-year students enrolled in UK HE, 2006/07 to 2021/22



Note: All student numbers are rounded to the nearest 5. Note that the data prior to 2014/15 excluded students studying at alternative providers, whereas the data from 2014/15 onwards *include* these providers.
Source: London Economics' analysis of HESA (2023c).

2.2 Domicile

Approximately **92%** (**350,145**) of international first-year students in 2021/22 were domiciled outside the EU, with only **8%** (**31,220**) domiciled within the EU. In contrast, in 2018/19, **76%** of international first-year students in 2018/19 were non-EU domiciled, while **24%** were from the EU. This change in the composition of the cohort is driven by two factors. Firstly, the UK's exit from the European Union has resulted in a sharp decline in EU domiciled first-year students in 2021/22 (a **52%** (**34,000**) drop compared to 2018/19), as, from 2021/22 onwards, EU students starting HE qualifications in the UK are typically no longer eligible to pay 'home' fees or receive public tuition fee support[36]. Secondly, there has been a large increase in the number of non-EU first-year students, rising by **142,000** (**68%**) since 2018/19.

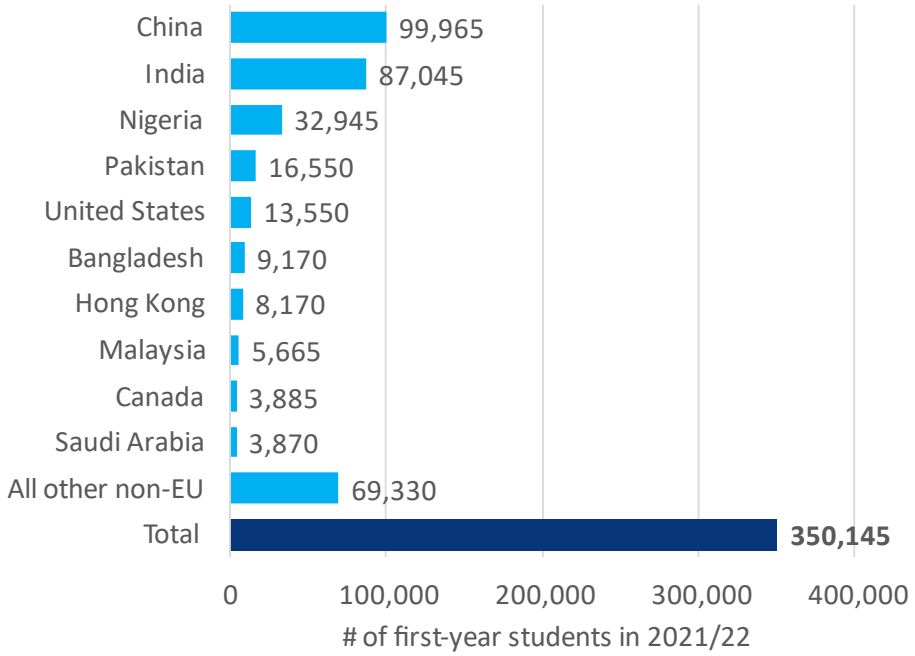
In terms of non-EU countries with the greatest number of students coming to the UK, **China** remains the dominant nation, with **99,965** first-year Chinese students entering UK higher education in 2021/22 (see Figure 11). **India** and **Nigeria** were the

[36] See Section 1.2 for more information on the changes for the rules in relation to tuition fees, student support, and teaching grants for EU domiciled students entering UK HE from 2021/22 onwards.

next most prolific, with **87,045** and **32,945** first-year students enrolled in 2021/22, respectively. Both countries have seen substantial increases in first-year student enrolments in the UK since 2018/19 (**376%** and **490%** respectively).[37]

The country providing the greatest number of EU domiciled first-year students in 2021/22 was **Ireland**, with **4,415** students coming to the United Kingdom (see Figure 12), followed by **France** (**4,355**) and **Germany** (**3,695**). Compared to 2018/19, there has been a substantial decline in the number of first-year students from almost all major EU contributor countries except Ireland.[38]

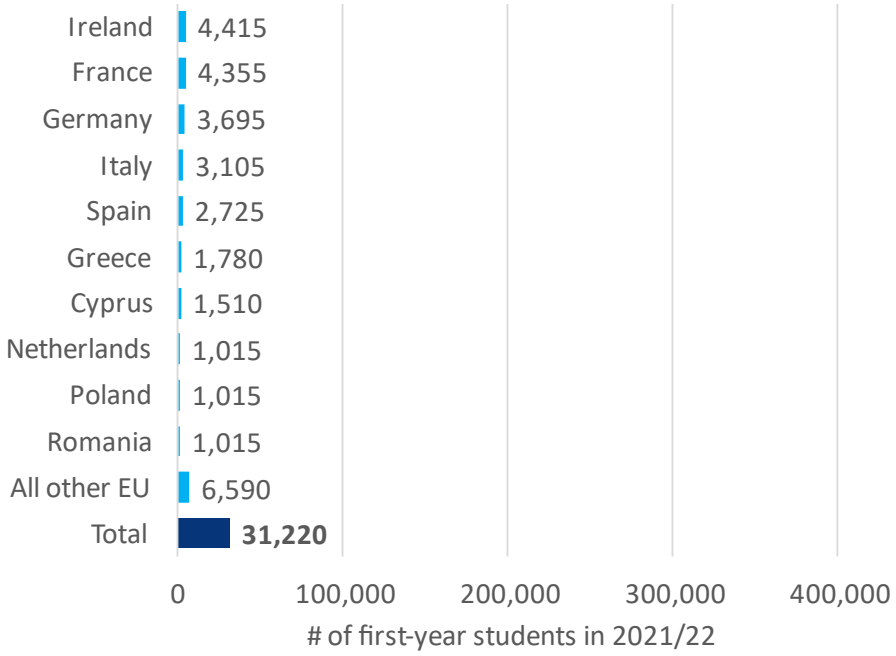
Figure 11 International first-year students enrolled in UK HE in 2021/22: Top 10 non-EU countries of domicile



Note: All student numbers are rounded to the nearest 5.
Source: London Economics' analysis of HESA (2023c)

[37] There were **18,305** first-year students from India enrolled in UK institutions in 2018/19, and **5,585** from Nigeria.
[38] In 2018/19, there were **4,400** first-year Irish domiciled students enrolled in UK higher education.

Figure 12 International first-year students enrolled in UK HE in 2021/22: Top 10 EU countries of domicile



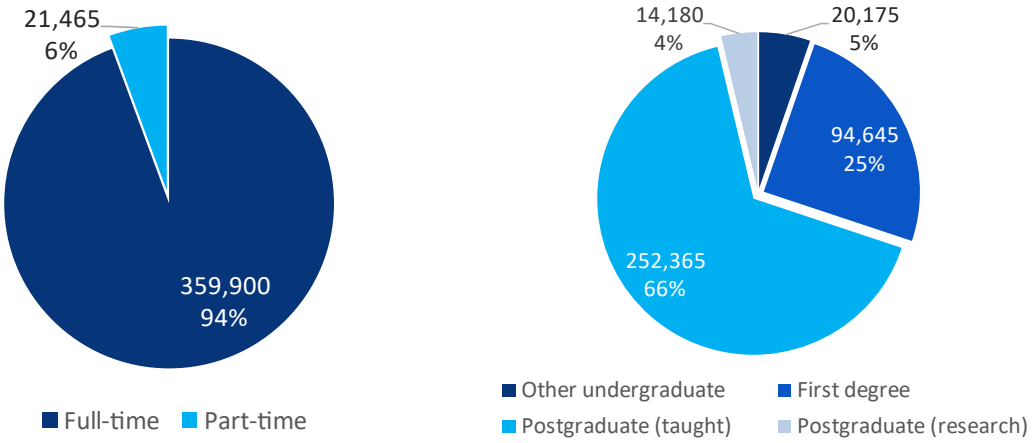
Note: All student numbers are rounded to the nearest 5.
Source: London Economics' analysis of HESA (2023c)

2.3 Level and mode of study

Figure 13 (left-hand panel) presents the profile of the **381,365** international first-year students in 2021/22 in terms of mode of study. The vast **majority of these international students (94%)** were undertaking qualifications on a full-time basis, with only **6%** of students undertaking qualifications on a part-time basis.

In terms of the level of study (see the right-hand panel of Figure 13), **66%** (**252,365**) of students in the cohort were undertaking **taught postgraduate degrees**, with a further **14,180** students (**4%**) undertaking **postgraduate research degrees**. Around **114,820** students (**30%**) were engaged in undergraduate qualifications, of which **94,645** (**25%**) were undertaking **first degrees** and **20,175** (**5%**) were enrolled in **other undergraduate qualifications**. The overall composition of the cohort by level of study has changed since 2018/19, with an increase in the proportion of students undertaking taught postgraduate degrees (from **52%** in 2018/19 to **66%** in 2021/22, and a corresponding decline in the proportion of students enrolled in first degrees (from **36%** in 2018/19 to **25%** in 2021/22). This is likely driven by the above-discussed decline in EU domiciled students and the increase in non-EU students in the cohort, as, compared to EU students, non-EU students are typically much more likely to enrol in taught Masters programmes.

Figure 13 International first-year students enrolled in UK HE in 2021/22, by level and mode



Note: All student numbers are rounded to the nearest 5.
Source: London Economics' analysis of HESA (2023c)

A detailed breakdown of first-year international students in 2021/22 by domicile, study mode, and level of study is provided in Table 5.

Table 5 International first-year students enrolled in UK HE in 2021/22 by domicile, mode, and level

Level and mode of study	Domicile		
	EU	Non-EU	Total
Full-time	**27,180**	**332,720**	**359,900**
Other undergraduate	575	9,190	**9,765**
First degree	12,945	81,090	**94,035**
Postgraduate (taught)	11,710	231,075	**242,785**
Postgraduate (research)	1,950	11,365	**13,315**
Part-time	**4,040**	**17,425**	**21,465**
Other undergraduate	1,045	9,365	**10,410**
First degree	180	430	**610**
Postgraduate (taught)	2,545	7,035	**9,580**
Postgraduate (research)	270	595	**865**
Total	**31,220**	**350,145**	**381,365**
Other undergraduate	1,620	18,555	**20,175**
First degree	13,125	81,520	**94,645**
Postgraduate (taught)	14,255	238,110	**252,365**
Postgraduate (research)	2,220	11,960	**14,180**

Note: All student numbers are rounded to the nearest 5.
Source: London Economics' analysis of HESA (2023c)

2.4 Location of study in the UK

Figure 14 and Figure 15 show the geographical spread of first-year international students in the 2021/22 cohort by UK region, and demonstrate that, as in 2018/19, students in the 2021/22 cohort were spread across the entire UK (and all regions have seen strong increases in the number of inbound international first-year students[39]).

In England, there were approximately **98,825** first-year students enrolled with London-based higher education institutions, with a further **34,660** attending institutions in the South East. Demonstrating the spread of international students across England, there were a further **31,360** students studying in Yorkshire and the Humber, **29,750** in the West Midlands, **27,680** in the North West, **24,835** in the East of England, **24,235** in the East Midlands, and **18,715** in the North East. In relation to the other UK home nations, there were **44,085** international first-year students studying in Scotland, **14,905** in Wales, and **12,615** in Northern Ireland.

Considering the **concentration** of international students relative to the total resident population (as per 2020 population data[40]), the analysis illustrates that, on average across all regions, there was 1 international student per approximately **180** members of the resident population in each region. While the corresponding concentration in London and Scotland was as high as **90:1** and **120:1**, respectively, the lowest concentration of international students occurred in the South West (**290:1**), North West (**270:1**), and South East (**270:1**).

Figure 16 shows the proportion of all first-year students (from all domiciles) enrolled in UK HE in 2021/22 that were international (i.e., from non-UK countries). Overall, international students made up **30%** of all first-year students who started HE qualifications across the whole of the UK. Considering the breakdown by region, the highest proportion was observed in London, where **40%** of all first-year students were international students, followed by Northern Ireland (**36%**), Scotland (**34%**), and the East of England (**33%**). In relation to Northern Ireland, this implies that, while there was only a relatively small absolute number of international first-year students in Northern Ireland in 2021/22 (**12,615**, see Figure 14), these international students accounted for a significant proportion of all students starting HE qualifications at Northern Irish HEIs in that year.

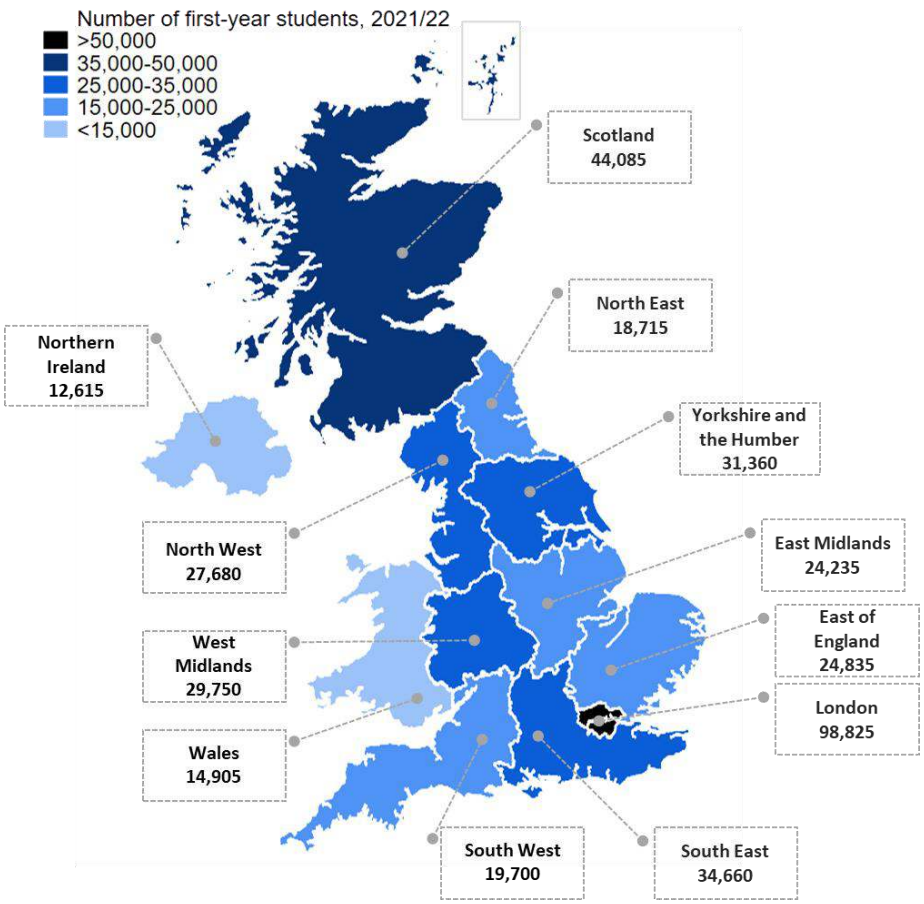
Finally, Figure 17 compares the number of first-year international students enrolled in each region in 2018/19 vs. 2021/22. The figure demonstrates that, across *all*

[39] Also see Figure 17.

[40] See House of Commons Library (2021). 2020 data was used to remain consistent with total population calculations by parliamentary constituency, as it was the most recent year for which data by parliamentary constituency was available for the entire UK.

regions, there has been a substantial increase in international first-year students, with particularly pronounced increases in students studying at HEIs located in **London**, **Scotland**, **Yorkshire and the Humber**, and **Northern Ireland**.

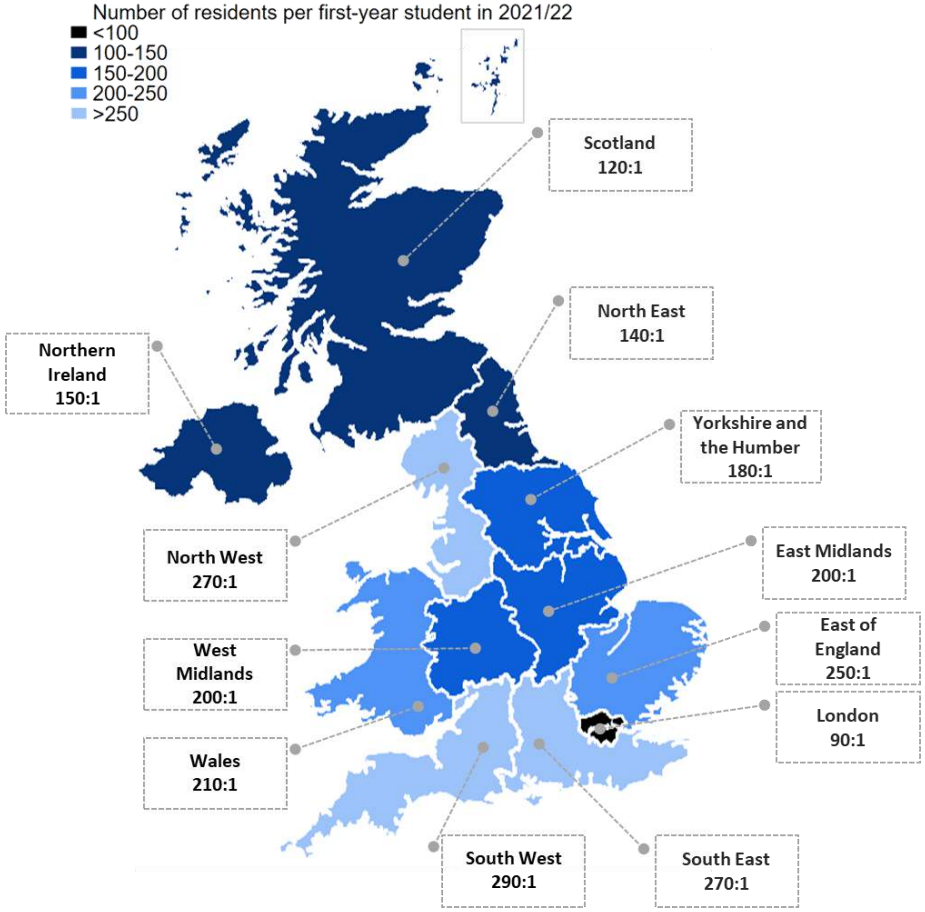
Figure 14 Number of international first-year students in 2021/22 by region



Note: All student numbers are rounded to the nearest 5.

Source: London Economics' analysis of HESA (2023c), Office for National Statistics (licensed under the Open Government Licence v.3.0) and OS data © Crown copyright and database right 2023.

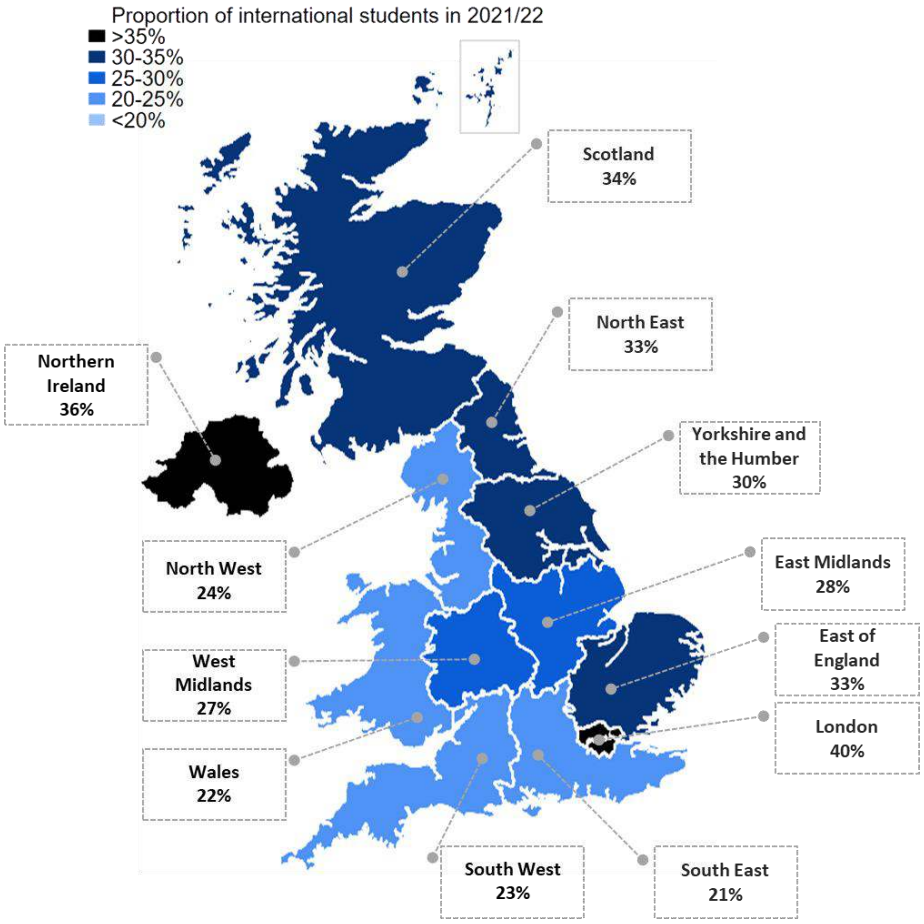
Figure 15 Number of residents per international first-year student in 2021/22 by region



Note: All numbers are rounded to the nearest 10.

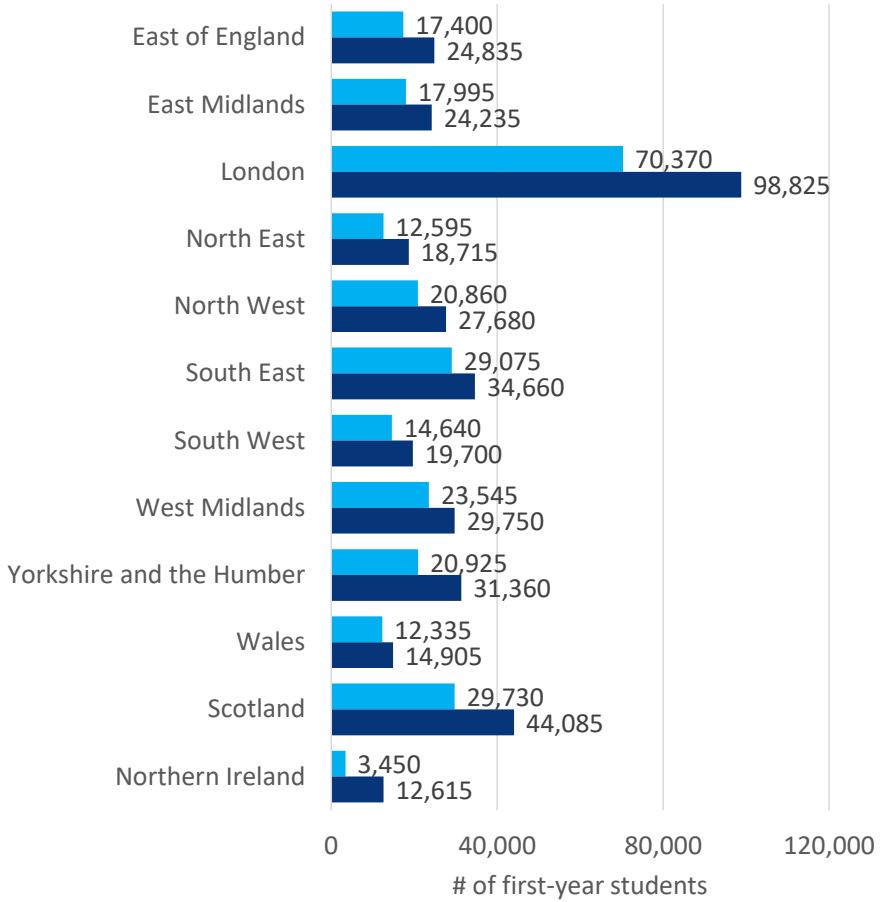
Source: London Economics' analysis of HESA (2023c), House of Commons Library mid-2020 population data (House of Commons Library, 2021), Office for National Statistics (licensed under the Open Government Licence v.3.0) and OS data © Crown copyright and database right 2023.

Figure 16 International first-year students as a proportion of total first-year students in 2021/22 by region



Source: London Economics' analysis of HESA (2023c), Office for National Statistics (licensed under the Open Government Licence v.3.0) and OS data © Crown copyright and database right 2023.

Figure 17 International first-year students by region, 2018/19 vs. 2021/22



Note: All student numbers are rounded to the nearest 5.

Source: London Economics' analysis of HESA (2023c).

3 Methodological approach

3.1 Estimating impacts over the cohort's total duration of study

Section 2 provided an overview of the number of students *starting* formally recognised qualifications or credit-bearing higher education modules at UK higher education institutions in the 2021/22 academic year. However, to aggregate the benefits and costs associated with this cohort, it is necessary to adjust the number of 'starters' to account for **completion/continuation rates**.

For this, we used information published by HESA[41] on non-continuation one year or two years after entry, for UK domiciled full-time and part-time first undergraduate students, respectively (on average, and broken down by young and mature entrants).[42,43] Combining this information on annual non-continuation rates with assumptions on the average study duration by qualification level and mode (discussed below), we then calculated the proportion of students expected to continue their studies per year (by level and mode).

In terms of the assumptions on the **duration of study**, as presented in Table 6, for full-time students, we assumed a typical study duration of **3 years** for full-time first degrees[44] and postgraduate research degrees, and a **1 year** duration for full-time postgraduate taught degrees and other undergraduate qualifications. To achieve comparable assumptions for part-time students, we adjusted these full-time study durations for the average study intensity amongst part-time students (estimated at

[41] HESA has now merged with Jisc. As the relevant data are still published on the HESA website, we continue to refer to HESA rather than Jisc.

[42] For more information, please refer to HESA (2023a). Data for full-time students are based on the 2019/20 cohort of students (i.e., those who entered in 2019/20), tracking where these students were in 2020/21 (i.e., 1 year after entry). Data for part-time students are based on the 2018/19 cohort of students (i.e., those who entered in 2018/19), again tracking where these students were in 2020/21 (i.e., 2 years after entry). 2019/20 and 2018/19 data are used because they are the most recent years for which data are currently available. Non-continuation rates for part-time students were then adjusted to assume an equal drop-out rate in the 1st and 2nd year of study. Non-continuation rates are based on the proportion of students no longer enrolled in HE; hence, this approach implicitly takes account of students who 'switch' between qualifications or transfer to a different institution as 'continuing' students.

[43] Note that, as the HESA data provide no comparable information for non-UK domiciled students, we have assumed that their completion rates are identical to those estimated for UK domiciled students. In addition, there is no completion rate information available for other undergraduate qualifications undertaken on a part-time basis – and thus it is assumed to be the same as for first degrees. Further note that the HESA information provides separate non-continuation rates for first degree and other undergraduate students but excludes students at postgraduate level. To achieve assumptions for postgraduate students, we assume that students undertaking postgraduate research or taught degrees post the same non-continuation rates as *mature* first degree students.

[44] Although full-time honours degrees in Scotland are generally 4 years in duration, given that only **8%** of international first degree students in the 2021/22 cohort were studying in Scotland, for modelling purposes, we assume that all full-time undergraduate degree are 3 years in duration.

50%).[45] Hence, we assume an average study duration of **6 years** for part-time first degrees and postgraduate research degrees, respectively, and a **2-year** duration for part-time postgraduate taught degrees and other undergraduate qualifications.

Combining the annual non-continuation rates with these assumed study durations, Table 6 also presents the completion rates applied throughout the analysis.[46] We assume that of those students starting a full-time first degree at a UK higher education institution in 2021/22, approximately **93%** are expected to progress into the second year of study as intended (with the remaining **7%** discontinuing their studies), **87%** are expected to complete the second year, and **81%** are expected to complete their first degree as intended (after 3 years of study). The annual progression rate for part-time first degrees stands at **84%** *per year* (implying that approximately **35%** would be expected to complete their first degree as intended (after 6 years of study). The corresponding estimates for full-time postgraduate degrees (both taught and research) qualifications were assumed to be **88%** per year (compared to **84%** per year for part-time postgraduate degrees).

To assess the total economic benefits and public costs associated with international students in the 2021/22 cohort, we then multiplied the assumed continuation rates per year by the estimated benefits and costs per year, to ensure that all estimates (per student and in aggregate) are adjusted for the proportion of students expected to continue their studies each year.

[45] The assumed average study intensity among part-time students is based on (unpublished) HESA data for UK domiciled first-year undergraduate part-time students in 2021/22 (excluding alternative providers and students studying for undergraduate credits only, and including students in HESA's Standard Registration Population only). We apply this information to all first-year international students in 2021/22 (i.e., we assume the same study intensity for non-UK students as for UK domiciled students, and for postgraduate students as for undergraduate students).

[46] Note that the HESA 'first year marker' identifies those international students for whom it is their first year at a particular *university*, but not necessarily their first year on a particular *course*. A (likely small) number of 'first-year' EU and non-EU undergraduates (i.e., according to their first-year marker) may be entering into the 2nd or 3rd year of a particular undergraduate course. As such, the results of the gross economic benefit per student may overestimate the true gross benefit.

Table 6 Assumed study duration and continuation rate per year - by level and mode of study

Study mode and level	Full-time students				Part-time students			
	Other undergraduate	First degree	Postgraduate degree (taught)	Postgraduate degree (research)	Other undergraduate	First degree	Postgraduate degree (taught)	Postgraduate degree (research)
Study duration	**1 year**	**3 years**	**1 year**	**3 years**	**2 years**	**6 years**	**2 years**	**6 years**
Year 1	85%	93%	88%	88%	84%	84%	84%	84%
Year 2		87%		78%	71%	71%	70%	70%
Year 3		81%		68%		59%		59%
Year 4						50%		50%
Year 5						42%		42%
Year 6						35%		35%
Year 7								
Year 8								

Note: Continuation rates for postgraduate students are based on mature entrants to first degrees. Shaded areas indicate the proportion of students expected to complete their intended qualification (following the assumed average study duration for each level and mode of study).

Source: London Economics' analysis of HESA (2023a) data

3.2 Assessing the economic benefits associated with international students

There are a range of benefits associated with international students to the UK economy. From the perspective of higher education institutions, these predominantly relate to the **direct** economic benefits associated with international students' **tuition fees**, as well as the (equally significant) **indirect** and **induced** economic impacts associated with higher education institutions' spending of this fee income.

In addition to tuition fees, the UK economy benefits from the **non-tuition fee expenditure** of international students studying in the UK, as well as the **spending of visitors** (e.g., friends and family) coming to the UK to visit these students during their studies. Again, in addition to the direct impacts of this spending, the analysis presented here also considers the **indirect** and **induced** economic impacts on the UK economy associated with this expenditure. These occur through the spending of companies in the relevant supply chains, as well as the spending of wage income of staff in these supply chains buying goods and services from within the economy.

There are clearly a range of other benefits associated with international students, e.g., including the cultural diversity that they bring to the United Kingdom, the longer-term business, investment and trade links, as well as the soft diplomatic power that the UK may exert across the globe.[47] In addition, at an operational level, the fee income received by higher education institutions increases the breadth and depth of the university education offer available to both UK domiciled and international students (including, importantly, the cross-subsidisation of research activities).[48] In addition, we do not include the additional Exchequer taxation receipts contributed by international students who enter the UK labour market post-graduation.[49] Similarly, we take no account of tax and National Insurance contributions made by international students' dependants while in the UK. The exclusion of these additional benefits implies that our analysis **underestimates** the true benefit of international students studying in the United Kingdom.

[47] E.g., see Higher Education Policy Institute (2022).
[48] E.g., see Olive (2017).
[49] See London Economics (2019) for previous estimates of the additional Exchequer taxation receipts contributed by international students who enter the UK labour market post-graduation.

3.2.1 Direct economic impacts

Tuition fee income

To assess the level of tuition fee income per international student per year, we used data on the fee income received by UK higher education institutions[50] in the 2020/21 academic year[51] to estimate average fees charged per student per year (by study level, study mode, domicile and location of study[52]). The average fees per student were then uprated to 2021/22 prices using CPI inflation.[53] Applying the assumptions relating to average study duration and completion rates, we then calculated the value of tuition fee income from the start of a student's course until completion in today's money terms (i.e., the **discounted** stream of future benefits (in net present values and 2021/22 prices))[54], to arrive at the **average tuition fee income per student**.

Combining the estimated tuition fee income per student with the number of international students enrolled in higher education courses in the 2021/22 cohort, we then calculated the **aggregate tuition fee income associated with the 2021/22 cohort of international students**.

Non-fee income

In addition to their tuition fees, international students also incur significant expenditure on non-tuition fee-related items whilst acquiring their qualifications. This includes spending on **accommodation costs** (rent, utility bills, etc.), **subsistence costs** (food, entertainment, personal items, etc.), **direct course costs** (textbooks,

[50] In line with the information on the 2021/22 cohort of international students, this includes all publicly funded HEIs as well as alternative providers.

[51] 2020/21 data were used in place of 2021/22 data, as 2021/22 data were not available at the time that the analysis was undertaken.

[52] Specifically, for non-EU students, we used information on aggregate fee income from new and continuing non-EU students in 2020/21 (HESA, 2023b) by study mode, study level (i.e., undergraduate vs. postgraduate), and location (home nation) of study. To derive fee levels per *full-time* student per year, we divided the respective total levels of fee income from full-time students by the underlying number of (first-year and continuing) full-time students in 2020/21. To derive fee levels per *part-time* student (again by level and location of study), we then multiplied the respective full-time fee rates by the assumed average study intensity amongst part-time students (see Section 3.1 (Footnote 45) for further detail).
As outlined in Section 1.2, 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 EU students were generally no longer eligible for 'home' fee status). 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).

[53] Using quarterly consumer price index (CPI) data published by the Office for National Statistics (2023a).

[54] The real discount rate used adopted for this analysis was the HMT the Green Book rate of 3.5% (see HM Treasury, 2022b). This was combined with CPI inflation forecasts (published by the Office for Budget Responsibility (2022 and 2023)) to convert all estimates into 2021/22 prices.

journal or library subscriptions, computer equipment, etc.), **facilitation costs** (e.g., course-related travel costs), and **spending on children** (including childcare that is not related to their study). Previous analyses have demonstrated that the level of non-tuition fee expenditure by international students is often found to be comparable to tuition fee income[55], making non-tuition fee expenditure a significant component of the UK's export income from international students coming to study in the UK.

To analyse the level of non-tuition fee expenditure associated with the 2021/22 cohort of international students, we used estimates from the **2014/15 English Student Income and Expenditure Survey**[56] and the **2014/15 Welsh Student Income and Expenditure Survey**[57]. The surveys provide estimates of the average expenditure by *English and Welsh* domiciled students studying in England and Wales on living costs, housing costs, participation costs (including tuition fees) and spending on children, for both full-time and part-time students.[58] We then made the following adjustments to the 2014/15 SIES estimates:

- We **excluded tuition fee expenditures** to avoid double-counting.
- We adjusted the resulting estimates for inflation to **reflect 2021/22 prices**.[59]
- Since the Student Income and Expenditure Surveys do not provide expenditure estimates for non-UK domiciled students or postgraduate students, our analysis assumed that non-tuition fee expenditure levels do not vary significantly between UK and international students (or between undergraduate and postgraduate students). Hence, we based our estimates for international students studying in England on the estimated expenditures of English domiciled students, and our estimates for international students studying in Wales on the expenditures of Welsh domiciled students.[60] We did, however, adjust the estimates for the assumed longer average stay durations in the UK for non-EU domiciled international students compared to EU domiciled students (given geographic proximity and the general ease of travel).

[55] E.g., see Department for Business, Innovation and Skills (2011) and London Economics (2018, 2021).
[56] See Department for Education (2018); the survey focused on English domiciled students studying in England or Wales.
[57] See Welsh Government (2018); the survey focused on Welsh domiciled students studying in England or Wales.
[58] The non-fee expenditure of international students studying in Scotland and Northern Ireland was assumed to be the same as for Welsh domiciled students (studying in England or Wales), given the lack of any recent estimates of the specific student expenditures for Scotland and Northern Ireland.
[59] Inflation estimates are again based on quarterly CPI data published by the Office for National Statistics (2023a).
[60] Again, we assume the same level of expenditures for international students studying in Scotland and Northern Ireland as for international students studying in Wales (given the lack of recent estimates of student expenditures for Scottish and Northern Irish students).

Specifically, using a similar approach as outlined by the Department for Business, Innovation and Skills (2011), we assume that **EU domiciled postgraduate** and **non-EU undergraduate and postgraduate students** spend a greater amount of time in the UK, on average, than prescribed by the duration of the academic year (39 weeks).[61] Hence, we assume that all postgraduate students (both EU and non-EU domiciled) spend **52 weeks** per year in the UK, as they write their dissertations during the summer. Further, we assume that non-EU and EU domiciled undergraduate students spend an average of **42** and **39 weeks** per year in the UK (respectively). The lower stay duration for EU undergraduate students reflects the expectation that these students, given the relative geographical proximity to their home countries and the resulting relative ease and lower cost of transport, are more likely to return home during holidays. These assumptions are summarised in Table 7.

Table 7 Assumed average stay durations for international students (in weeks), by domicile and level of study

Level of study	Domicile	
	EU (non-UK)	Non-EU
Undergraduate	39 weeks	42 weeks
Postgraduate	52 weeks	52 weeks

Source: London Economics' analysis of Department for Business, Innovation and Skills (2011)

Again, we calculated the resulting non-tuition fee expenditure over the entire duration of students' higher education courses (discounted to reflect present values and 2021/22 prices, and adjusted for completion rates). The resulting estimates provide the **average non-tuition fee expenditure per student** in 2021/22 prices by level of study, mode, location (i.e., home nation) of study, and domicile (EU or non-EU). Using the number of students in the 2021/22 cohort of international students, we then calculated the **aggregate non-tuition fee income associated with the 2021/22 cohort of international students**.

Visitor income

Alongside the expenditures of international students themselves, they attract friends and relatives to visit the United Kingdom, whose expenditures result in additional income to the UK economy. However, while there have been a number of other studies that have attempted to incorporate the impact of income associated

[61] In reality, there may be significant variation around these assumed average stay durations depending on individual students' circumstances, such as country of origin, parental income, ability to study remotely from abroad etc.

with international students' visitors[62], there is no reliable source of information on the number of visitors that international students attract. Therefore, to provide an estimate, our starting point was the **total number of, and expenditures made by, *all* visitors to the United Kingdom** in 2019, using information from the International Passenger Survey (IPS).[63] [64]

Specifically, to estimate the **number of visitors who are 'student-related visitors'**, we calculated the share of first-year students from each country in 2021/22 as a proportion of the total UK resident population born in that same country.[65] For instance, if the resident population of a particular country was estimated to be 100,000 and there were 1,000 international students from that same country, then the resulting proportion would stand at 1%. The same process was undertaken separately for each of the 20 top countries of origin of international students (where possible and available)[66] , as well as in total for all other EU and all other non-EU countries.

The number of visitors visiting international students from each country was then estimated by applying the estimated proportion to the total number of visitors from that country indicating that their reason for travel was to visit friends or relatives in the United Kingdom.[67] For example, there were **169,000** French-born residents in the UK (in July 2020 to June 2021), and **4,355** first-year students from France enrolled in UK higher education in the 2021/22 academic year. Hence, first-year students from France were assumed to make up around **2.6%** of all French residents in the UK. As such, we assumed that **2.6%** of the **1.14 million** individuals from France visiting friends and relatives in the UK in 2021/22 were visiting students, and that

[62] For example, see London First and PwC (2014) and Oxford Economics (2014).
[63] Using information from the Office for National Statistics (2022b), as with our previous studies (London Economics (2018, 2021)), our approach follows the methodology for estimating the impact of international students in London by London First and PwC (2014).
[64] We used data from 2019 as this represented the most recent year where travel was not impacted by the Covid-19 pandemic. As the estimates are forward-looking and capture the visitor spending over the total study duration of the 2021/22 cohort, we assume that visitor numbers in future academic years will not be affected by the Covid-19 pandemic (i.e., will return to the same level as in 2019). However, as discussed in further detail below, the estimates in the first year of study (i.e., in 2021/22 itself) were adjusted for the significant disruption to international travel caused by the Covid-19 pandemic.
[65] The resident population data are based on Office for National Statistics (2021b), for July 2020 to June 2021 (which is the most recent period for which this information is available for the whole of the UK).
[66] For more information on these top countries of domicile of international students in the 2021/22 cohort, please refer to Section 2.2. Note that it was not possible to replicate the analysis for *each* country of origin, given that there is no published information from HESA on the number of first-year non-UK students for each individual country of domicile. Where either HESA data on first-year students or IPS visits data is not available, we group countries with 'missing' data together by domicile (e.g., China and Hong Kong were combined, as no split is provided between Hong Kong and China in the data on the UK resident population by country of birth).
[67] Based on visitor data published by the Office for National (2022b). This approach assumes that visitors visiting friends and family in the UK are always visiting people from their country of origin.

these visits would not have occurred in the absence of international students from France.

Note that the estimates of family and friends visiting international students in the first year of study for the cohort (i.e., 2021/22) were adjusted for the impact of the Covid-19 pandemic on overseas visitors to the UK in that year. Specifically, we assumed that the number of visitors per international student was **36%** lower in the 2021/22 academic year than it would otherwise have been (but returned to the same level as in 2019 level from 2022/23 onwards (i.e., we assume no Covid-19 effect in the cohort's subsequent years of study).[68]

We then divided the total spending of visitors (uprated to 2021/22 prices[69]) by the total number of visitors (in 2019) to calculate the **average spending per visitor** across the different countries/groups of countries, weighted by the estimated number of visitors to students by country of origin (to account for the potential variation in the wealth of visitors to the United Kingdom).

Using this approach, we estimated that in 2021/22, there were approximately **0.63** international visitors for every international first-year student enrolled in UK higher education (and **0.99** in subsequent years of study), which equates to approximately **240,000** visitors to these students in 2021/22 (and **377,000** in subsequent years). In addition, the average expenditure associated with each of these visits was estimated at approximately **£940**. Note that the analysis is undertaken for each of the main countries of domicile within the 2021/22 cohort of international students, which should therefore account for the geographic proximity of different countries. Reflecting this, our analysis assumes that EU students typically attract more overseas visitors per year than non-EU students (**1.9** visits per EU student compared to **0.5** visits per non-EU student in 2021/22, and **3.1** and **0.8** respectively in subsequent years). However, non-EU visitors are estimated to spend more on average during each visit (**£1,140**) compared to EU student visitors (**£340**).

Again, we then calculated the resulting visitor expenditure over the entire duration of students' higher education courses (again discounted to net present values and adjusted for study completion rates), to arrive at the **average visitor expenditure per student** in 2021/22 prices (by level of study, mode, and domicile). Combining this with the number of international students in the 2021/22 cohort, we then

[68] This scaling factor was calculated based on Office for National Statistics (2023d) overseas visitor data (for 2021/22 vs. 2018/19 (as the pre-Covid year)), adjusted for changes in the data collection between these two years (i.e., to take account of the fact that the 2021/22 collection excluded passengers arriving via the Eurotunnel) using information published by Visit Britain (2022).

[69] Again, using CPI inflation data from the Office for National Statistics (2023a).

calculated the **aggregate visitor expenditure associated with the 2021/22 cohort of international students** across the United Kingdom.

3.2.2 Indirect and induced economic impacts

There is a wide body of literature estimating the direct, indirect, and induced impact of higher education institutions' expenditures (and the spending of students) on universities' local, regional, and national economies.[70] Assessments of these effects consider universities as economic units creating output within the local economy by purchasing products and services from their supply chains and hiring employees. Similar economic impacts apply to the non-fee expenditures of students and their visitors on consumer goods and services within the local economy. The direct, indirect, and induced economic impacts associated with the fee and non-fee spending of international higher education students in the UK and the spending of these students' visitors are defined as follows:

- **Direct effect**: This is captured by the above-discussed fee income (accrued by HEIs), and non-fee income and visitor income (accrued by other organisations providing goods and services to international students and their visitors) associated with the 2021/22 cohort of international students studying in the UK.
- **Indirect effect ('supply chain impact')**: Universities and businesses providing other goods and services to international students and their visitors spend their income on purchases of goods and services from their suppliers, which in turn use this revenue to buy inputs (including labour) to meet these demands. This results in a chain reaction of subsequent rounds of spending across industries, often referred to as a 'ripple effect'.
- **Induced effect ('wage spending impact')**: University employees (supported by international tuition fee income) and the employees of companies providing goods and services to international students and visitors use their wages to buy consumer goods and services. This in turn generates wage income for employees within the industries producing these goods and services, again leading to subsequent rounds of spending, i.e., a 'ripple effect' throughout the economy as a whole.

An analysis of the *net* impact of these effects on the UK economy ideally needs to account for two additional factors potentially reducing the size of any of the above effects:

- **Leakage** into other geographical areas, by taking account of how much of the additional economic activity occurs in the area of consideration; and

[70] For example, see London Economics (2017).

- **Displacement** of economic activity within the region of analysis, i.e., taking account of the possibility that the economic activity generated might result in the reduction of activity elsewhere within the region.[71]

The direct, indirect, and induced impacts were estimated using **economic multipliers** derived from Input-Output tables, which measure the total production output of each industry in the UK economy, and the inter-industry (and intra-industry) flows of goods and services consumed and produced by each sector. Specifically, we made use of existing economic multipliers associated with the expenditures of UK HEIs, their students, and their students' visitors, based on an analysis of the combined impact of the UK higher education sector by Oxford Economics (2017)[72]. The multipliers constitute Type II multipliers, capturing the aggregate impact on the UK economy arising from an initial injection relative to that initial injection – i.e., the total direct, indirect, and induced impacts associated with the expenditures of universities, students, and overseas visitors to students relative to the direct level of these expenditures[73].

Given that international students' tuition fees are accrued as income (and subsequently spent) by higher education institutions themselves, we applied the multipliers associated with university expenditure to derive the total direct, indirect, and induced impacts associated with international students' **tuition fee income**. In addition, we applied the multipliers associated with student expenditure and overseas visitor expenditure to our above-described estimates of **non-tuition fee student expenditure** and **overseas visitor expenditure**, respectively.

The assumed multipliers are presented in Table 8. To interpret these estimates, for example, the multiplier of **2.1** for student expenditure implies that each **£1 million** of (direct) non-fee expenditure by international students on goods and services generates a total of **£2.1 million** of economic impact throughout the UK economy.

[71] It is important to note that, while the analysis takes account of *leakage* (e.g., adjusting for the extent to which any additional income for supplying industries might be spent on imports of goods and services from outside the UK), the estimated impacts here are *not* adjusted for *displacement* or additionality (e.g., the extent to which the tuition fee, non-tuition fee, and visitor income associated with international students might otherwise have been used for other purposes). Hence, our analysis effectively estimates the direct, indirect, and induced impacts in *gross* terms.

[72] The study by Oxford Economics (2017) focused on the 2014-15 academic year.

[73] In mathematical terms, the multipliers are calculated as [(Direct impact + indirect impact + induced impact)/Direct impact].

Table 8 Assumed economic multipliers by type of international student expenditure

Type of expenditure	Total impact per direct impact
University expenditure (applied to tuition fee income)	2.5
Student expenditure (applied to non-fee income)	2.1
Overseas visitor expenditure (applied to visitor income)	1.9

Note: These multipliers were not stated explicitly in Oxford Economics' study but were instead calculated based on the aggregate impact estimates provided.

Source: London Economics' analysis based on Oxford Economics (2017)

3.2.3 Level of analysis

Economic multipliers of the above type are typically estimated at different geographical levels, e.g., estimating the impact of economic activities at the regional level or for the UK economy as a whole. Throughout this analysis, rather than estimating the impact of the tuition fee, non-tuition fee, and visitor income associated with international students on each of the local economies within which these students reside during their studies, we estimated the **aggregate direct, indirect, and induced economic impact of this income on the UK economy as a whole**. This aggregate UK-wide impact is subsequently allocated by **region** according to the location of the institutions they attend.

This regional contribution of international students to UK economic activity was then further allocated **by parliamentary constituency**, according to 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 the UK at the parliamentary constituency level[74], we instead made use of information from the 2021 Census (for England and Wales) and 2011 Census (for Scotland and Northern Ireland) on the total number of full-time students that are 'usually resident'[75] in each parliamentary constituency across the UK.[76] [77] While this is the only publicly available

[74] Note that the Office for National Statistics (2023b) recently published granular data on the characteristics of international students in England and Wales based on the 2021 Census; however, the data does not currently contain any information at the parliamentary constituency level.

[75] Usual residents in the 2011 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 this definition, see Office for National Statistics (2023c).

[76] See Office for National Statistics (2011) and Office for National Statistics (2021a).

[77] Data from separate censuses are used because information on the number of students from the 2021 Northern Ireland Census and 2022 Scottish Census were not yet available at the parliamentary constituency level.

information on students' residency by constituency, it is important to note that the data:

- Is **relatively outdated** for Scotland and Northern Ireland (as the most recent data that is currently available was collected on 27 March 2011[78]);
- Focuses on **full-time students only** (though note that only **6%** of the 2021/22 cohort of international students were undertaking qualifications on a part-time basis[79]);
- Includes ***both* UK domiciled as well as non-UK domiciled students** (based on the above definition of 'usual residents')[80];
- Includes students undertaking qualifications **at any level of education** (rather than higher education students only); and
- Includes students of **any age between 18 and 74** (for the 2011 Census data used for Scotland and Northern Ireland) and **aged 16 and over** (for the 2021 Census data used for England and Wales).

The general effect of these assumptions will be to reduce the concentration of economic contribution in and around higher education institutions and spread the effect more widely across the country in our findings compared to reality.

3.3 Assessing the public purse costs associated with international students

Before Brexit, the Exchequer provided teaching grants to higher education institutions located in each of the four home nations to compensate HEIs for (part of) the costs of teaching provision to UK and EU domiciled students (no such funding was applicable to non-EU domiciled students). In addition, EU domiciled students studying in any of the four UK home nations were eligible for **tuition fee support** provided by the Student Loans Company (for students studying in England, Wales, or Northern Ireland) and the Student Awards Agency for Scotland (for students studying in Scotland). These types of public costs were included in our previous analyses of the economic impact of international students in the 2015/16 and 2018/19 cohorts (see London Economics, 2018 and 2021, respectively). However, as outlined in

[78] 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.
[79] See Section 2.3.
[80] Note that, given the difference in the number of UK and non-UK domiciled students, the data primarily reflects the residency of UK domiciled students. As such, the analysis by parliamentary constituency will not reflect the true picture in some constituencies - especially where there may be a particularly high concentration of international students.

Section 1.2, given the significant changes to the eligibility rules for EU domiciled students starting HE qualifications in the UK from 2021/22, we assume that these public costs no longer apply to the 2021/22 cohort.

Therefore, the analysis here only includes the public costs of providing general public services to students and their dependants joining them in the UK[81], including:

- **Public healthcare** (net of any NHS immigration health surcharge);
- **Housing** and **community amenities**;
- Pre-primary, primary and secondary level **education** received by dependent children;
- **Other public services** (including **public order** and **safety**; **defence; economic affairs**; **recreation**, **culture**, and **religion**; **environmental protection**, and **other general public services**);
- '**Non-identifiable' public expenditure** incurred on behalf of the UK as a whole (such as expenditure relating to the **servicing of the national debt**); and
- **Expenditure on overseas activities** (i.e., diplomatic activities etc).

These costs were primarily based on data from Public Expenditure Statistical Analyses (PESA) published by HM Treasury (2022a) and supplemented with more specific information for international students and their dependants where possible/available. PESA data from 2020/21 was used (as that was the most recent year for which data was available), and the estimates were uprated to 2021/22 prices using CPI inflation[82].[83]

[81] Our previous analyses of the economic benefits and public costs associated with international students in the UK (see London Economics, 2018 and 2021) also included the public costs of providing social security to EU domiciled students (such as state benefits provided through Child Benefit, Child Tax Credit, Carer's Allowance, Employment and Support Allowance, any disability/invalidity/incapacity or sickness benefit, Working Tax Credit, Job Seekers Allowance and other unemployment benefits, Income Support, Housing Benefit, and Local Housing Allowance). As with the public costs of tuition fee support and teaching grants for EU domiciled students (see Section 1.2), following Brexit (and as was already the case for non-EU students), we assume that these social security costs generally no longer apply to EU domiciled students starting HE qualifications in the UK from 2021/22 onwards (i.e., that these costs do not apply to the 2021/22 cohort).

[82] Again using quarterly CPI data published by the Office for National Statistics (2023a).

[83] Note that the use of 2020/21 data may lead to an overestimate of the public costs associated with international students, due to increased government spending during the Covid-19 pandemic. For example, 'general economic, commercial and labour affairs' increased from **£137** per head in England in 2018/19 to **£2,153** per head in 2020/21 (in nominal terms), with similarly large increases in Wales, Scotland, and Northern Ireland. These large increases may be related to Covid-19 related measures, such as the Coronavirus Job Retention Scheme.

3.3.1 Number of dependants associated with international students

To estimate the size of these public costs associated with international students and their dependants, it was necessary to estimate the number of child and adult dependants per EU and non-EU domiciled student enrolled in UK higher education.

EU domiciled students now generally face the same rules as non-EU domiciled students regarding bringing dependants to the UK, so the same approach has been employed to estimate the number of dependants per EU and non-EU student.[84] Bar some exceptions, in general, only postgraduate non-EU students are allowed to bring dependants to the UK.[85] The approach assumes that all adult and child dependants are *additional* to the UK – i.e., they would not have come to the UK other than to join their relative coming to the UK to undertake higher education.[86]

Based on immigration statistics published by the UK Home Office[87] and the number of first-year EU and non-EU undergraduate and postgraduate students in 2021/22, we estimated that there are approximately **303** dependants per 1,000 non-EU *postgraduate* students and **14** dependants per 1,000 EU *postgraduate* students (and **no** dependants for EU or non-EU *undergraduate* students, as these students are assumed to be ineligible to bring dependants to the UK during study). Averaging across the relative proportions of undergraduate and postgraduate in the 2021/22 cohort, this implies that there are approximately **216** adult or child dependants for each 1,000 (undergraduate or postgraduate) non-EU students, and **7** dependants for each 1,000 (undergraduate or postgraduate) EU students. Note that it is assumed that the number of dependants per student is the same for international students studying in all regions of the UK, as well as across full-time and part-time students.

[84] Some EU students with settled or pre-settled status do not face the same restrictions as other EU and non-EU students. However, as outlined in Section 1.2, it is not possible to determine the number of EU domiciled students with settled or pre-settled status, so it is assumed that EU students in the 2021/22 cohort face the same rules as non-EU students in the cohort.

[85] Undergraduate international students can only bring in dependants if they were government-sponsored. See UK Government (2023b).

[86] Our approach is conservative; for example, dependants may not be additional to the UK economy if they live in households with international domiciled individuals who would already be residing in the UK prior to their studies. Further, while we include the *costs* of international student dependants, we do not include the *benefits* of international student dependants who may be working in the UK (e.g., in terms of the additional income tax revenue generated).

[87] See Home Office (2022). For non-EU students, we divided the number of dependant visas issued associated with student visas for non-EU domiciled students in 2021 Q3 to 2022 Q2 (**81,089**) by the number of student visas issued to non-EU domiciled students in the same period (**392,154**). We applied the same approach for EU students, dividing the total number of dependant visas (**133**) by the total number of visas issued to EU students over the period (**17,781**). The information relates to 'general' student visas only, and excludes any information in relation to child students.

To estimate the costs of providing public services to international students, it was necessary to achieve a breakdown of these dependent numbers into adult vs. child dependants. To achieve this breakdown, using data provided by Enroly (from its Dependants Report, providing information on the number and characteristics of the dependants a large sample of international students who started UK HE qualifications in 2021/22)[88], we assume a 60%/40% split between adult and child dependants.

Table 9 presents the resulting estimated number of adult and child dependants per 1,000 EU and non-EU domiciled students, by domicile and level of study.

Table 9 Estimated number of adult and child dependants per 1,000 EU and non-EU domiciled students

Type of dependant	EU domiciled	Non-EU domiciled
Undergraduate students		
Adult dependants	-	-
Child dependants	-	-
Total	**-**	**-**
Postgraduate students		
Adult dependants	8	181
Child dependants	6	122
Total	**14**	**303**
All students		
Adult dependants	4	129
Child dependants	3	87
Total	**7**	**216**

Note: Apart from some exceptions, the visa restrictions for EU and non-EU undergraduate students do not allow them to bring dependants to the UK with them.

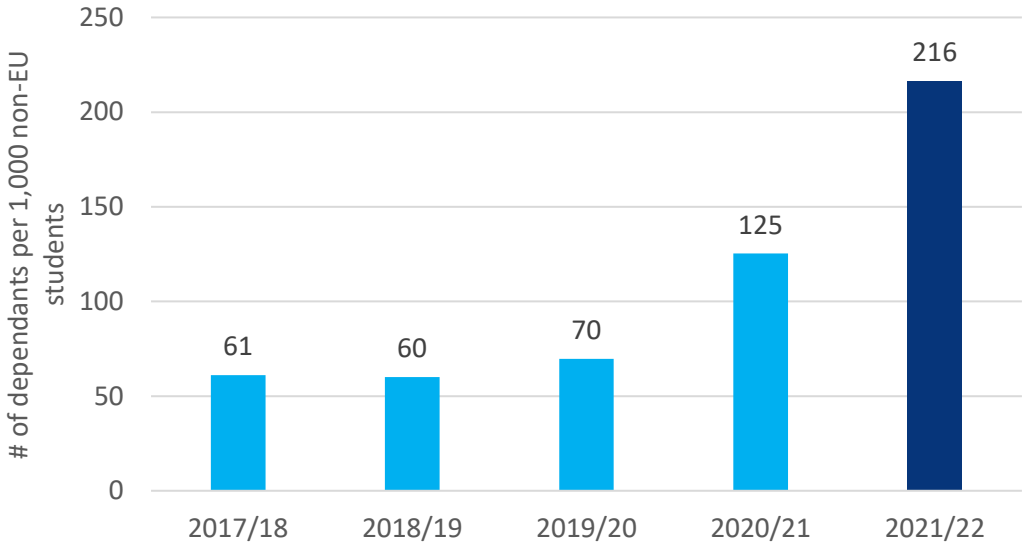
Source: London Economics' analysis of Home Office (2022), HESA (2023c), and (unpublished) data provided by Enroly

It is important to note that there has been a significant increase in non-EU students' likelihood of bringing dependants into the UK in recent years. As presented in Figure 18, based on the same Home Office (2022) immigration statistics that were used to derive the above assumptions, the number of dependants per 1,000 non-EU students has increased from approximately **61** per 1,000 students in 2017/18 to **216**

[88] Specifically, using a sample of more than 72,000 international students from selected subset of institutions using the Enroly platform, the data is based on information students from September/October 2022 and January/February 2023 intakes who had a Confirmation of Acceptance for Studies (CAS) issued for one of those intakes.

in 2021/22 (a **254%** increase).[89] However, as outlined in further detail in Section 6, despite the increase in dependants, the net economic impact associated with non-EU students attending HE in the UK (net of the cost of providing public services to students and their dependants) continues to be very substantial.

Figure 18 Number of dependants per 1,000 non-EU domiciled students by academic year



Source: London Economics' analysis of Home Office (2022)

3.3.2 Cost of public health services

In terms of the costs of public healthcare provision by the National Health Service (NHS), **EU and non-EU students** and their dependants are eligible for UK public healthcare but must pay a compulsory annual NHS immigration health surcharge (IHS) of **£470** towards their healthcare costs.[90] [91]

The assumed cost of NHS healthcare provision for international students was based on an analysis by the Department for Health and Social Care (using 2018/19 NHS England data), estimating the annual cost to the NHS per IHS-paying migrant per year

[89] A similar comparison for EU students is not possible, as, prior to 2021/22, these students were generally not required to apply for student visas to undertake higher education qualifications in the UK (i.e., so that these students were not included in the Home Office visa statistics).
[90] Based on information from the UK Government (2023a).
[91] All non-EU (except those from Switzerland) domiciled students must pay the IHS. EU domiciled students with pre-settled or settled status are not required to pay the IHS. However, as there is no data on the number of EU students with pre-settled or settled status (again, see Section 1.2), we assume that all EU students in the 2021/22 cohort were eligible to pay the surcharge. In addition, note that EU students can apply for IHS reimbursement, but this reimbursement limits their access to UK healthcare and therefore would reduce the public costs associated with each student (Department of Health and Social Care, 2022). Therefore, again, it is assumed that all EU domiciled students in the 2021/22 paid the IHS.

at **£702**.[92] We assume the same level of cost per head for all international students and their dependants. In addition, we assume that these costs – originally estimated for the NHS in England – are the same for international students and their dependants residing in Wales, Scotland, or Northern Ireland. We also assume that international students and their dependants use the NHS in a similar way to other IHS-paying migrants (including having a similar usage of private health insurance).

Based on the above information, we estimated that the net public healthcare cost associated with international students in the 2021/22 cohort per year stands at **£232** per international student or dependant (i.e., £702 minus the £470 NHS immigration health surcharge).

3.3.3 Cost of education provision for child dependants

Child dependants of both EU and non-EU students are eligible to access the UK education system.[93] To take account of this, based on the above-discussed PESA data, our analysis of the costs associated with international students' child dependants includes the public purse costs of pre-primary, primary and secondary education per member of the eligible population.[94]

3.3.4 Cost of other public services

In addition to the costs of public healthcare and education, we also included:

- The costs associated with a range of **other public services**, including **housing and community amenities**; **public order and safety**; **defence**[95]; **economic affairs**; **recreation, culture, and religion**; **environmental protection**; and **other general public services not classified above**; and
- '**Non-identifiable' public sector costs** in the PESA data that could not be attributed to particular regions (but instead apply to the UK as a whole), as well as **public expenditure on overseas** (e.g., diplomatic) activities.

[92] The cost was £646 in 2018/19 prices, which has been uprated to 2021/22 prices using CPI inflation. See House of Commons Library (2020).
[93] See Home Office (2021).
[94] Specifically, to arrive at the associated cost per child dependant, we divided the total UK public expenditure on pre-primary, primary, and secondary education in each region (see HM Treasury, 2022a) by the number of children aged 2–18 residing in each region in mid-2021 (see Office for National Statistics, 2022a).
[95] Note that these public costs of defence refer to 'identifiable' expenditure on defence only, i.e., in terms of the level of public expenditure that could be apportioned to each UK region. The majority of defence expenditure is 'non-identifiable' (i.e., could not be assigned to a particular region, but instead applies to the UK as a whole).

To estimate these additional costs per EU and non-EU domiciled student and per associated adult and child dependant, we added the estimates (per head) for each of these cost items contained separately within the PESA data.

3.3.5 Total public costs per student

Combining the estimated costs associated with all of the above public services, we estimated the total public sector costs per student, adult dependant, and child dependant per year, by region (where available/applicable).[96]

In Table 10, we present the total Exchequer costs associated with the provision of the above-discussed public services to international students **per head** (i.e., per student/dependant) and **per year** – broken down into students/adult dependants and child dependants.[97] For illustration, the table is based on students studying in the **East of England** only (since the majority of these public costs are broken down by the region within which the different services are incurred).

Table 10 Costs of public service provision per student or adult/child dependant per year in the East of England, by type of service

Type of service and mode	Per student/adult dependant	Per child dependant
Health[1]	£232	£232
Education[2]	-	£6,169
General public services	£149	£149
Defence	£3	£3
Public order and safety	£456	£456
Economic affairs	£3,293	£3,293
Environment	£179	£179
Housing	£150	£150
Recreation, culture, and religion	£104	£104
Non-identifiable & overseas[1]	£2,002	£2,002
Total	**£6,568**	**£12,738**

Note: All values constitute annual costs per head, presented in 2021/22 prices. Totals may not sum due to rounding. [1]Indicates costs which do not differ between regions (due to a lack of breakdown in the underlying data). [2]The costs of pre-primary, primary and secondary education are applicable to child dependants only.
Source: London Economics' analysis of various sources

Adding the costs across all of these public services, the total cost of public service provision for a full-time (undergraduate or postgraduate) international student or associated adult dependant stands at **£6,568** per year. Driven by the additional costs

[96] For a full breakdown of these costs for each region in the UK, please refer to Table 20 in Annex A2.1.
[97] There is no breakdown by domicile or study mode as the costs per student/dependant are assumed to be the same for EU and non-EU students, and for full-time and part-time students.

of educational services (which are assumed to apply to child dependants only), the corresponding costs per child dependant stand at **£12,738** per year.

Again, we then calculated the above costs over the total study duration, adjusted for completion rates per year and the estimated number of adult and child dependants per student (see Table 9), and applied the relevant discount rate to calculate net present values. We thus arrived at an estimate of the average **public costs per student (over the total study duration)** and aggregated it across the cohort to estimate the **total level of public costs associated with the 2021/22 cohort of international students**.

4 The economic benefits associated with international students

4.1 Tuition fee income

Table 11 presents our estimates of the total direct, indirect, and induced impact on the UK economy of the **tuition fee income** associated with international students in the 2021/22 cohort, per student and in total, over their entire expected study duration. This is presented separately by domicile (i.e., EU and non-EU) and level of study.

The average direct, indirect, and induced economic impact associated with tuition fee income was estimated to be approximately **£76,000** per **EU student** (across all levels of study). As expected, there is significant variation around this mean depending on the nature of the qualification (and the associated duration of study). In particular, the total impact associated with the tuition fee income of a typical EU student undertaking a first degree was estimated at **£122,000**, while the total economic impact associated with the tuition fee income of an EU student undertaking a postgraduate taught degree was estimated at **£35,000**. 'Other' undergraduate and postgraduate research qualifications were associated with a **£39,000** and **£89,000** benefit, respectively.

Table 11 Impact of tuition fee income associated with the 2021/22 cohort, by level of study and domicile

Level of study	£ per student			Total, £bn		
	EU	Non-EU	Average	EU	Non-EU	Total
Other undergraduate	£39,000	£37,000	**£37,000**	£0.1bn	£0.7bn	**£0.8bn**
First degree	£122,000	£123,000	**£123,000**	£1.6bn	£10.0bn	**£11.6bn**
Postgraduate (taught)	£35,000	£36,000	**£35,000**	£0.5bn	£8.5bn	**£9.0bn**
Postgraduate (research)	£89,000	£91,000	**£91,000**	£0.2bn	£1.1bn	**£1.3bn**
Average	**£76,000**	**£58,000**	**£59,000**			
Total				**£2.4bn**	**£20.2bn**	**£22.6bn**

Note: Values per student (weighted by the relevant student populations) are rounded to the nearest £1,000, and total values are rounded to the nearest £0.1 billion. 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

The impact on the UK economy associated with the tuition fee expenditure of a typical **non-EU student** was estimated to be **£58,000** (on average across all levels of study). Again, reflecting the differences in duration of study, for first degrees, the impact was estimated to be **£123,000**, compared to **£37,000**, **£36,000**, and **£91,000**

associated with 'other' undergraduate, postgraduate taught, and postgraduate research degrees, respectively.[98]

Note that, while we assume the same tuition fee per student per year among EU and non-EU students in the 2021/22 cohort (separately by level, mode, and region of study), the average economic impact per student over the entire duration of study was lower for non-EU than for EU students. This is driven by differences in the composition of the cohort for EU vs. non-EU students, primarily due to EU students being more likely to undertake first degrees (with a relatively long study duration) as compared to Masters degrees (with a shorter study duration). For EU students, this results in tuition fee expenditures taking place over a longer period, so that the total benefits over the entire study duration are larger for EU students and non-EU students, with a larger average benefit per student.[99] [100]

Aggregating across the entire 2021/22 cohort of first-year international students, the total economic impact of the tuition fee income generated by the cohort was estimated at approximately **£22.6bn**. Of this total, approximately **£2.4bn** was generated by EU students, with the remaining **£20.2bn** generated by non-EU students.

4.2 Non-fee income

The **non-tuition fee expenditures** of international students constitute a significant additional component of the economic impact generated by these students.

As presented in Table 12, the average direct, indirect, and induced impact of the non-tuition fee expenditures of EU domiciled students in the 2021/22 cohort over their total study duration was estimated to be **£59,000** per student, while the corresponding estimate for non-EU domiciled students stands at **£48,000**. Similar to the impact of tuition fees (see Section 4.1), the primary reason for the impact of non-tuition fee expenditures generated by EU students exceeding that of non-EU students relates to the composition of the student cohort by level of study.

[98] In addition to level and domicile, a more detailed breakdown of these estimates by study mode is provided in Annex A2.2.

[99] See Table 5 in Section 2.3 for a detailed breakdown of the number of international students in the 2021/22 cohort by domicile, level and mode of study.

[100] Further note that any differences in the average benefit per student by level of study (as well as overall) between EU and non-EU students are driven by differences in the likelihood of undertaking full-time vs. part-time study (where non-EU students are somewhat more likely to undertake full-time programmes than non-EU students, with a relatively shorter study duration) as well as differences in the likelihood of studying in different UK regions (as tuition fees were estimated separately by region of study). Again, see Table 5 in Section 2.3 for more information.

Table 12 Impact of non-fee income associated with the 2021/22 cohort, by level of study and domicile

Level of study	£ per student			Total, £bn		
	EU	Non-EU	Average	EU	Non-EU	Total
Other undergraduate	£46,000	£45,000	**£45,000**	£0.1bn	£0.8bn	**£0.9bn**
First degree	£73,000	£79,000	**£78,000**	£1.0bn	£6.4bn	**£7.4bn**
Postgraduate (taught)	£41,000	£35,000	**£35,000**	£0.6bn	£8.4bn	**£9.0bn**
Postgraduate (research)	£96,000	£91,000	**£92,000**	£0.2bn	£1.1bn	**£1.3bn**
Average	**£59,000**	**£48,000**	**£49,000**			
Total				**£1.8bn**	**£16.7bn**	**£18.6bn**

Note: Values per student (weighted by the relevant student populations) are rounded to the nearest £1,000, and total values are rounded to the nearest £0.1 billion. 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

Again, these estimates vary considerably by the level of study. Students undertaking postgraduate research degrees generated the largest non-tuition fee expenditure impact per student (**£96,000** per EU domiciled student and **£91,000** per non-EU student).[101] In comparison, for a typical EU domiciled student undertaking a first degree, the total economic impact associated with non-tuition fee expenditure was estimated at **£73,000**, with the comparable estimate for non-EU students standing at **£79,000**.[102]

The total direct, indirect, and induced economic impact associated with the non-tuition fee income generated by international students in the 2021/22 cohort (over their entire study duration) was estimated at **£18.6bn**. The majority (**£16.7bn**) of this impact was again generated by non-EU students, with EU domiciled students contributing the remaining **£1.8bn**.

4.3 Visitor income

As presented in Table 13, the direct, indirect, and induced economic impact associated with the expenditures of visitors to international students stood at approximately **£3,000** per EU domiciled student and **£2,000** per non-EU domiciled student in the 2021/22 cohort, on average. Again, the relatively higher estimates for EU students are driven by the differences in composition of EU vs. non-EU students by level of study.

[101] The difference between EU and non-EU students here is driven by differences in study mode, with EU postgraduate students being more likely to study part-time, which is associated with higher non-tuition fee spending over the total duration of study.
[102] The difference between EU and non-EU students is driven by non-EU first degree students typically remaining in the UK beyond the academic year.

Considering differences by study level, the estimates associated with EU domiciled and non-EU domiciled students undertaking first degrees stood at **£4,000**, while the corresponding estimate associated with students undertaking postgraduate taught degrees was estimated to be **£1,000**.[103]

Table 13 Impact of visitor income associated with the 2021/22 cohort, by level of study and domicile

Level of study	£ per student			Total, £bn		
	EU	Non-EU	Average	EU	Non-EU	Total
Other undergraduate	£2,000	£2,000	**£2,000**	£0.0bn	£0.0bn	**£0.0bn**
First degree	£4,000	£4,000	**£4,000**	£0.1bn	£0.3bn	**£0.4bn**
Postgraduate (taught)	£1,000	£1,000	**£1,000**	£0.0bn	£0.2bn	**£0.3bn**
Postgraduate (research)	£4,000	£4,000	**£4,000**	£0.0bn	£0.0bn	**£0.1bn**
Average	**£3,000**	**£2,000**	**£2,000**			
Total				**£0.1bn**	**£0.6bn**	**£0.7bn**

Note: Values per student (weighted by the relevant student populations) are rounded to the nearest £1,000, and total values are rounded to the nearest £0.1 billion. 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

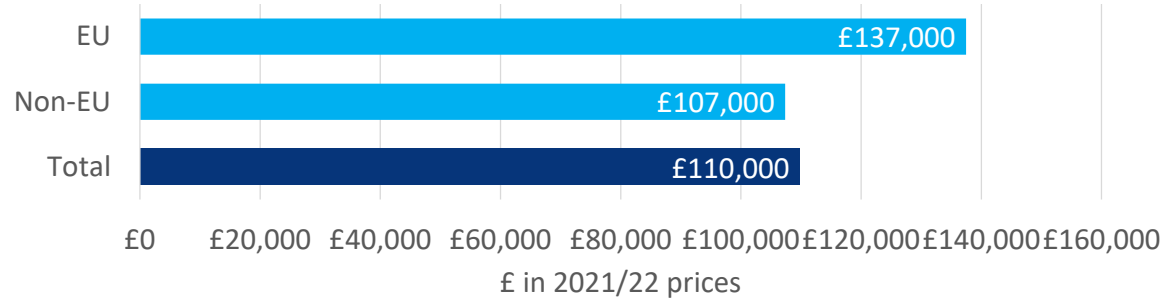
Aggregating across the total 2021/22 cohort of international students, the total direct, indirect, and induced impact of the expenditures of friends and family visiting international students (over the duration of their studies) was estimated to be approximately **£0.7bn**, of which **£0.1bn** was associated with EU domiciled students, and **£0.6bn** was associated with non-EU students.

4.4 Total benefits

Combining the above impacts associated with tuition fee, non-fee, and visitor income, the analysis estimates that the total benefit to the UK economy associated with a **typical EU domiciled student** was approximately **£137,000** per student, with the comparable estimate for **non-EU students** standing at approximately **£107,000** (see Figure 19). As discussed above, the difference between the two estimates is primarily driven by the relatively longer average study duration by EU domiciled students compared to students from non-EU countries studying at UK HEIs (driven by EU students' higher likelihood of undertaking (longer) first degrees as compared to (shorter) taught postgraduate degrees).

[103] The rounded estimates here hide small differences in the underlying unrounded estimates between EU and non-EU students.

Figure 19 Total benefit per student associated with the 2021/22 cohort, 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 2021/22 cohort of first-year students, the total economic benefits of international students in the cohort to the UK economy were estimated at approximately **£41.9bn**, of which **£4.3bn** is generated by EU students, and the remaining **£37.6bn** is generated by non-EU students (see Table 14).

Table 14 Total benefits associated with the 2021/22 cohort, by domicile and type of benefit

Type of benefit	EU	Non-EU	Total
Fee income	£2.4bn	£20.2bn	**£22.6bn**
Non-fee income	£1.8bn	£16.7bn	**£18.6bn**
Visitor income	£0.1bn	£0.6bn	**£0.7bn**
Total	**£4.3bn**	**£37.6bn**	**£41.9bn**

Note: Values are rounded to the nearest £0.1 billion. 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

5 The public purse costs of hosting international students

As discussed in Section 3.3 (and Section 1.2), following the UK's exit from the European Union and the resulting significant changes in the eligibility rules for EU domiciled students, these students are generally no longer eligible for public teaching grant or student support funding. 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).

Using the methodological approach discussed in Section 3.3, we estimate that, on average, the wider public cost associated with **EU domiciled students** in the 2021/22 cohort stands at **£13,000** per student in net present value terms over the course of their studies (see Table 15 and Figure 20). The corresponding cost associated with **non-EU domiciled students** was estimated at approximately **£12,000**. The (slightly) higher costs per EU student are again primarily driven by their higher likelihood to undertake courses with longer study durations (i.e., first degrees). This outweighs the fact that non-EU students tend to have a higher likelihood of bringing in dependants than EU students.[104]

Non-EU students' higher propensity to bring in dependants is reflected in the higher public costs per student for non-EU than EU students at postgraduate level. For postgraduate taught and postgraduate research courses, the public costs per non-EU student stand at **£9,000** and **£23,000** respectively, compared to **£8,000** and **£18,000** per EU student.[105] In contrast, the estimated costs per EU and non-EU student at undergraduate level are of similar magnitude.[106]

[104] As discussed in Section 3.3.1, based on Home Office data (see Home Office, 2022), the analysis assumes that non-EU students bring in approximately **216** dependants per 1,000 non-EU domiciled students in the cohort, with the corresponding number for EU domiciled students standing at **7** dependants per 1,000 EU students. These numbers provide averages across all levels of study; however, in general, only international students undertaking postgraduate courses are eligible to bring their dependants with them to the UK.

[105] There is a wider discrepancy between non-EU and EU students for postgraduate research compared to postgraduate taught degrees. This difference is driven by a relatively higher incidence of part-time study amongst EU students for postgraduate taught degrees and a relatively higher incidence of part-time study amongst non-EU students for postgraduate research degrees. Part-time degrees have a longer study duration, so are associated with higher public costs.

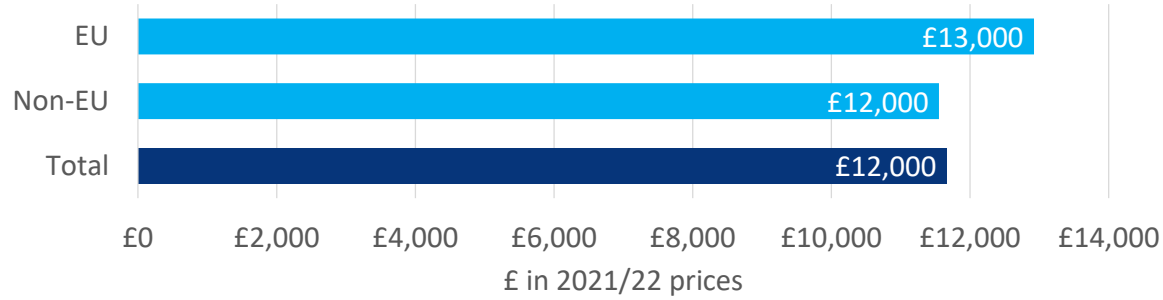
[106] The rounded estimates here hide small differences in the underlying unrounded estimates between EU and non-EU students.

Table 15 Other public costs associated with the 2021/22 cohort, by level of study and domicile

Level of study	£ per student			Total, £bn		
	EU	Non-EU	Average	EU	Non-EU	Total
Other undergraduate	£9,000	£9,000	**£9,000**	£0.0bn	£0.2bn	**£0.2bn**
First degree	£18,000	£18,000	**£18,000**	£0.2bn	£1.5bn	**£1.7bn**
Postgraduate (taught)	£8,000	£9,000	**£9,000**	£0.1bn	£2.2bn	**£2.3bn**
Postgraduate (research)	£18,000	£23,000	**£22,000**	£0.0bn	£0.3bn	**£0.3bn**
Average	**£13,000**	**£12,000**	**£12,000**			
Total				**£0.4bn**	**£4.0bn**	**£4.4bn**

Note: Values per student (weighted by the relevant student populations) are rounded to the nearest £1,000, and total values are rounded to the nearest £0.1 billion. 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

Figure 20 Total cost per student associated with the 2021/22 cohort, 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

Aggregating across the 2021/22 cohort of first-year students, the total public cost associated with these international students and their dependants was estimated to be **£4.4bn**. Of this total, approximately **£0.4bn** is associated with supporting EU domiciled students and their dependants, with the remaining **£4.0bn** associated with providing public services to non-EU students and their dependants.

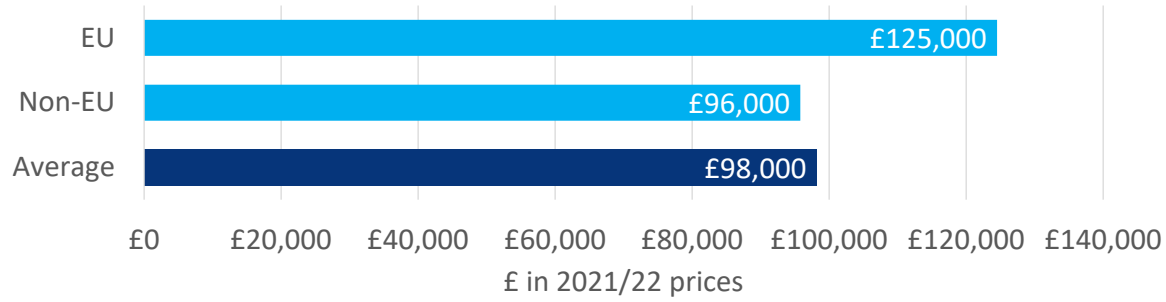
6 The net economic impact associated with international students

6.1 Total impact on the UK economy

Combining the total costs and benefits presented in Sections 4 and 5, the **net economic impact** per student was estimated to be **£125,000** per 'typical' EU domiciled student in the 2021/22 cohort, and **£96,000** per non-EU domiciled student (see Figure 21). In other words, **every 9 EU students and every 11 non-EU students generate £1m worth of net economic impact for the UK economy** over the duration of their studies.

Expressed in terms of **benefit-to-cost ratios**, dividing the economic benefit associated with EU domiciled and non-EU domiciled students (**£137,000** and **£107,000**, respectively) by the corresponding public costs (**£13,000** and **£12,000**, respectively), the analysis suggests that there is a benefit-to-cost-ratio of approximately **10.6** and **9.3** associated with hosting EU and non-EU students at UK higher education institutions, respectively (and **9.4** on average across both domiciles).[107]

Figure 21 Net impact per student associated with the 2021/22 cohort, 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***

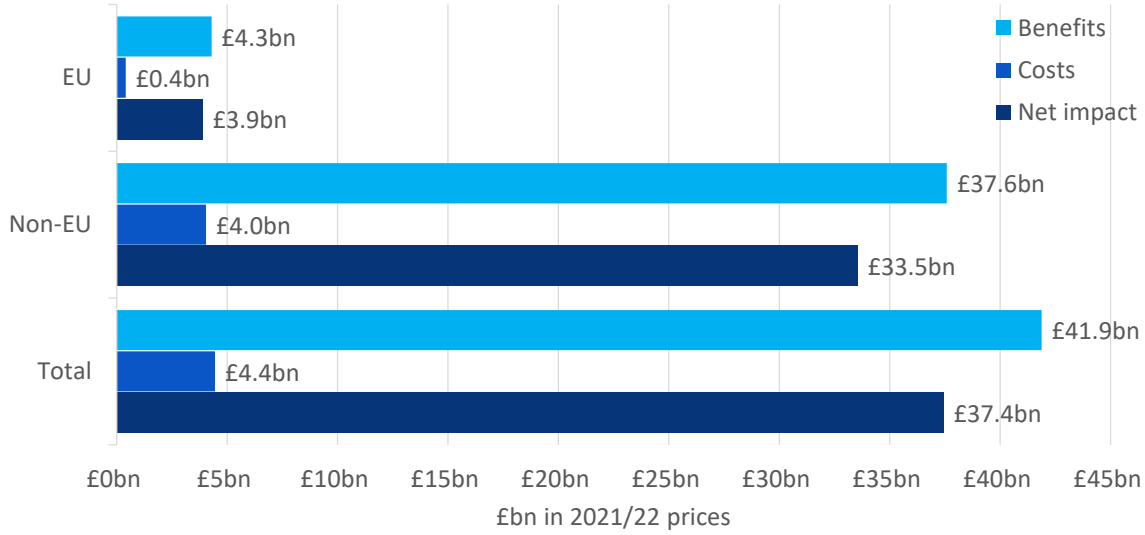
In relation to non-EU students, these results demonstrate that, despite the significant increase in the number of dependants joining non-EU students in the UK[108] and the resulting increase in the cost of providing public services associated with these students, the net economic impact on the UK per non-EU student continues to be very substantial. Expressed differently, compared to the current **216** dependants per 1,000 students that are currently accompanying non-EU students to

[107] The average is weighted by the number students in the 2021/22 cohort by domicile. A more detailed breakdown of these estimates by study level is provided in Annex A2.4.
[108] See Section 3.3.1 for more information.

the UK, non-EU students would need to bring approximately **10,400** dependants per 1,000 students (i.e., **10.4** dependants per student, or around **48** times the current incidence) for the average cost per non-EU student to equal the average benefit per non-EU student.[109]

Aggregating across the total cohort of first-year international students enrolled with UK HEIs in the 2021/22 academic year, **the total net impact of international students on the UK economy was estimated to be £37.4bn** (see Figure 22), with **£3.9bn** of net impact generated by EU domiciled students, and **£33.5bn** generated by non-EU domiciled students in the cohort.

Figure 22 Net impact associated with the 2021/22 cohort, by domicile



Note: Values are rounded to the nearest £0.1 billion. 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

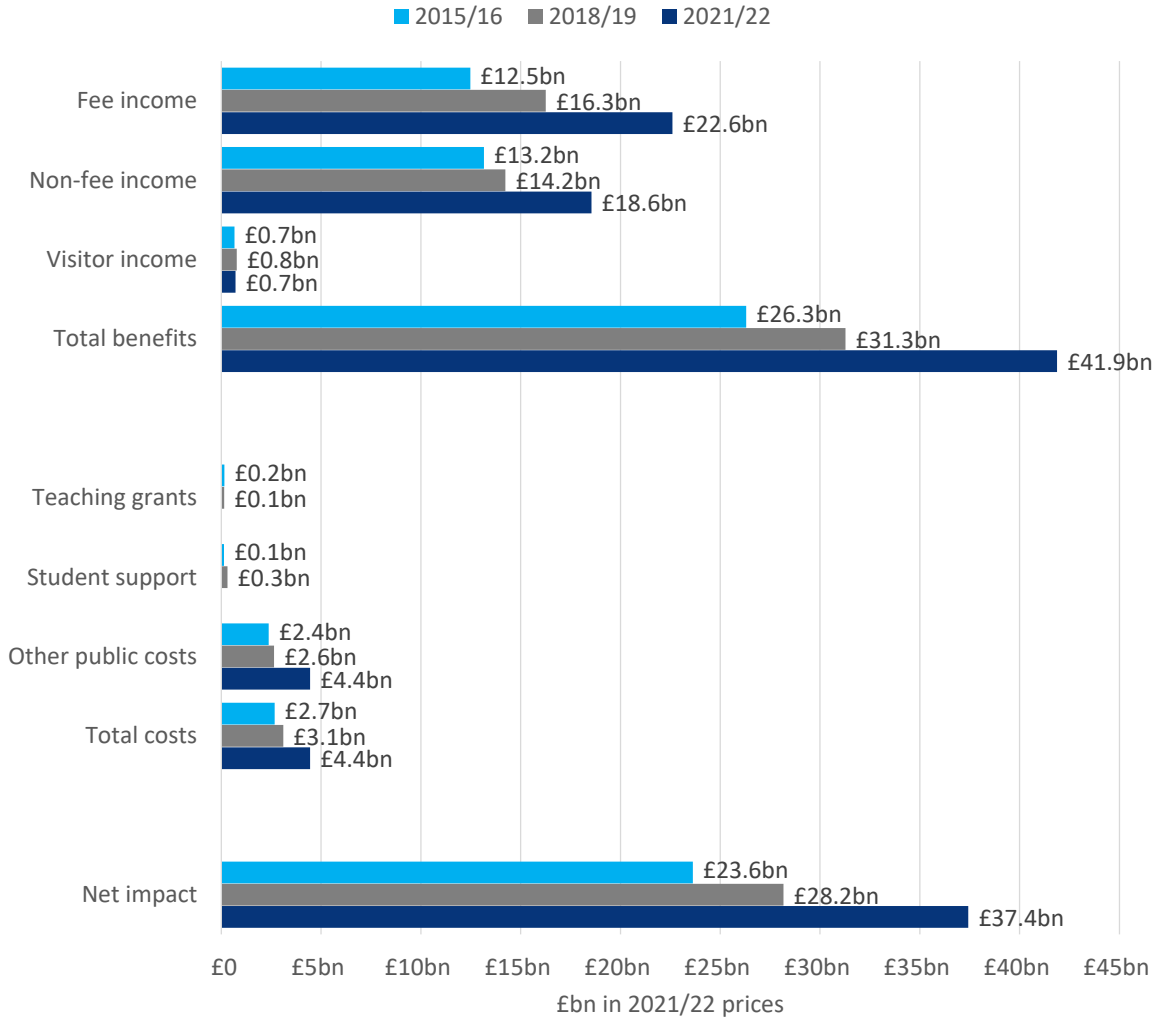
6.2 Change in impact over time

In Figure 23, we present a comparison of the net economic contribution associated with the 2015/16, 2018/19, and 2021/22 cohorts of international students. Reflecting the **40%** increase in the number of international students between

[109] While only postgraduate students are typically eligible to bring dependants to the UK, both figures here (i.e., 216 dependants per 1,000 non-EU students and 10,400 dependants per 1,000 non-EU students) are calculated as the average number of dependants across all students at all levels of study (i.e., including both undergraduate and postgraduate students). The hypothetical figure of 10,400 dependants per 1,000 non-EU (undergraduate and postgraduate) students would result in a £0 average net economic impact per non-EU student *across all levels of study*; however, the estimated net economic impact associated with postgraduate students would be *negative*, but would be exactly offset by the *positive* net economic impact associated with undergraduate students.

2018/19 and 2021/22[110], the net economic impact has increased from **£28.2bn** for the 2018/19 cohort to **£37.4bn** for the 2021/22 cohort (a **33%** increase in real terms). The impact has also increased by **58%** in real terms since 2015/16 (from **£23.6bn** in 2015/16 to **£37.4bn** in 2021/22).[111]

Figure 23 Net impact associated with the 2015/16, 2018/19 and 2021/22 cohorts



Note: Values are rounded to the nearest £0.1 billion. 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

The **economic benefits** have risen from **£31.3bn** to **£41.9bn** (**34%**) since 2018/19, driven predominantly by the substantial increase in the size of the non-EU student

[110] See Section 2.1 for more information.
[111] The previous results for 2015/16 and 2018/19 have been converted to 2021/22 prices, to allow for a comparison in real terms.

cohort (which outweighs the decline in the number of EU students in the cohort). Compared to 2015/16, the benefits have increased by **59%**.

The **public costs** of hosting international students have also increased since 2018/19, and by a larger proportion (from **£3.1bn** to **£4.4bn** (**43%**)[112]). These costs have increased despite the withdrawal of student support and teaching grants for EU students, and are driven by an increase in the Exchequer cost of providing general public services to international students and their dependants, linked to:

- The **increase in the size of the non-EU student cohort**;
- The **increase in the cost per head of providing general public services to international students and their dependants** [113]; and
- The increased likelihood of non-EU (postgraduate) students bringing **dependants** to the UK.

Table 16 provides additional information on changes over time in relation to the impact per student, separately for EU vs. non-EU students. The average net impact per student has declined from **£103,000** in 2018/19 to **£98,000** in 2021/22. However, considering the breakdown by domicile:

- The impact per EU student has *increased* significantly (from **£78,000** to **£125,000**), driven by the increase in tuition fees charged to these students post-Brexit (i.e., the removal of 'home' fee status for EU students), as well as the removal of public fee support and teaching grant funding for these students. However, despite the increase in the impact per student, due to the large reduction in the number of EU students in the cohort, the aggregate net economic impact associated with EU students has declined from **£5.1bn** in 2018/19 to **£3.9bn** in 2021/22.
- In contrast, the impact per non-EU student has *declined* (from **£111,000** to **£96,000**), mostly due to a decline in economic benefits[114], but also, to a lesser extent, the above-discussed increase in the cost of public service provision associated with these students.

[112] Compared to 2015/16, the public costs have increased by **67%**.

[113] Our cost analysis here is predominantly based on Public Expenditure Statistical Analyses data for 2020/21, as more recent information was not available at the time that the analysis was undertaken. The increase in public costs was particularly driven by a relatively large rise in the cost associated with providing general economic affairs services to the public, particularly in relation to 'general economic, commercial and labour affairs' (also see Section 3.3 (and Footnote 83) for further information). Again, this increase might be related to specific measures that were introduced in response to the Covid-19 pandemic, such as the Coronavirus Job Retention Scheme.

[114] In turn, the decrease in benefits is due to a change in the composition of the non-EU cohort, where non-EU students are now less likely to undertake (longer) first degree courses, and more likely to enrol in (shorter) postgraduate taught courses – so that the average benefits across all students have declined.

Table 16 Net impact associated with the 2015/16, 2018/19 and 2021/22 cohorts, by domicile

Type of impact and cohort	£ per student			Total, £bn		
	EU students	Non-EU students	Total	EU students	Non-EU students	Total
2015/16						
Benefits	£101,000	£118,000	**£114,000**	£6.0bn	£20.3bn	**£26.3bn**
Costs	£22,000	£8,000	**£12,000**	£1.3bn	£1.4bn	**£2.7bn**
Net impact	**£79,000**	**£110,000**	**£102,000**	**£4.7bn**	**£18.9bn**	**£23.6bn**
2018/19						
Benefits	£102,000	£119,000	**£115,000**	£6.6bn	£24.6bn	**£31.3bn**
Costs	£24,000	£7,000	**£11,000**	£1.6bn	£1.5bn	**£3.1bn**
Net impact	**£78,000**	**£111,000**	**£103,000**	**£5.1bn**	**£23.1bn**	**£28.2bn**
2021/22						
Benefits	£137,000	£107,000	**£110,000**	£4.3bn	£37.6bn	**£41.9bn**
Costs	£13,000	£12,000	**£12,000**	£0.4bn	£4.0bn	**£4.4bn**
Net impact	**£125,000**	**£96,000**	**£98,000**	**£3.9bn**	**£33.5bn**	**£37.4bn**

Note: Values per student (weighted by the relevant student populations) are rounded to the nearest £1,000, and total values are rounded to the nearest £0.1 billion. 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

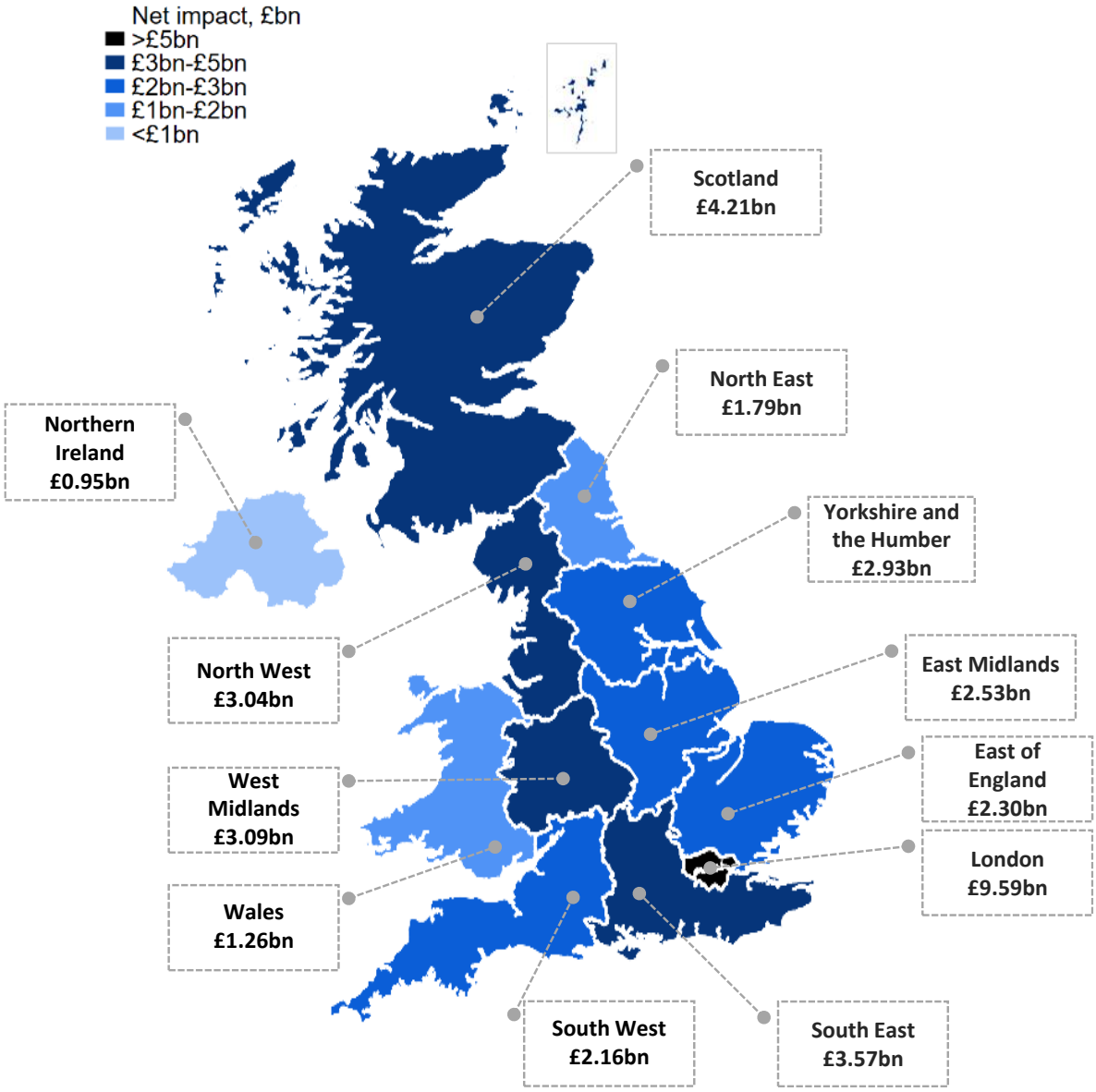
6.3 Impact by region

In Figure 24, we present the net economic impact of the 2021/22 cohort of international students on the UK economy **by region** of the institution that they attended. Clearly, the distribution of net economic impact by region of institution is closely linked to the number of students in the cohort attending institutions in each region.

Again, it is important to note that, rather than measuring the economic impact of international students *on each region separately* (although there will clearly be a significant local and regional impact associated with international students' non-tuition fee expenditure in particular), the analysis instead estimates the impact *on the UK as a whole*, but subsequently splits this out by the location of the international students (in terms of the location of the HEIs they are enrolled with).[115]

[115] This is based on differences in the size of the economic multipliers (see Section 3.2.2 for more information), which increase as the geographical region of analysis is widened: the larger the geographical area under consideration, the larger the available labour force and number of input suppliers that institutions, students,

Figure 24 Net impact associated with the 2021/22 cohort, by location (region) of higher education institution



Note: Values are rounded to the nearest £0.1 billion. All 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.***

Considering the resulting distribution of impact by region, the analysis indicates that international students have an impact across the entire United Kingdom, varying

and visitors source their demand from (implying a larger economic impact). As a result, regional economic multipliers are smaller than the corresponding multipliers for the UK as a whole – and the resulting sum of regional impacts across all regions would *not* equate to the total UK impact. To avoid these issues, we instead estimated impacts on the UK as a whole, and subsequently split these out by region (based on the location of universities which international students are enrolled with).

from a **£0.95bn** net economic contribution from international students in Northern Ireland to **£9.59bn** generated by international students studying in London. The net impact generated by international students based in the South East was estimated to be **£3.57bn**, compared to **£3.09bn** in the West Midlands, **£3.04bn** in the North West, **£2.93bn** in Yorkshire and the Humber, **£2.53bn** in the East Midlands, **£2.30bn** in the East of England, **£2.16bn** in the South West, and **£1.79bn** in the North East.

In relation to the other home nations of the United Kingdom, the contribution of international students in Scotland to the UK economy was estimated to be **£4.21bn**, compared to a contribution of **£1.26bn** from international students based in Wales.

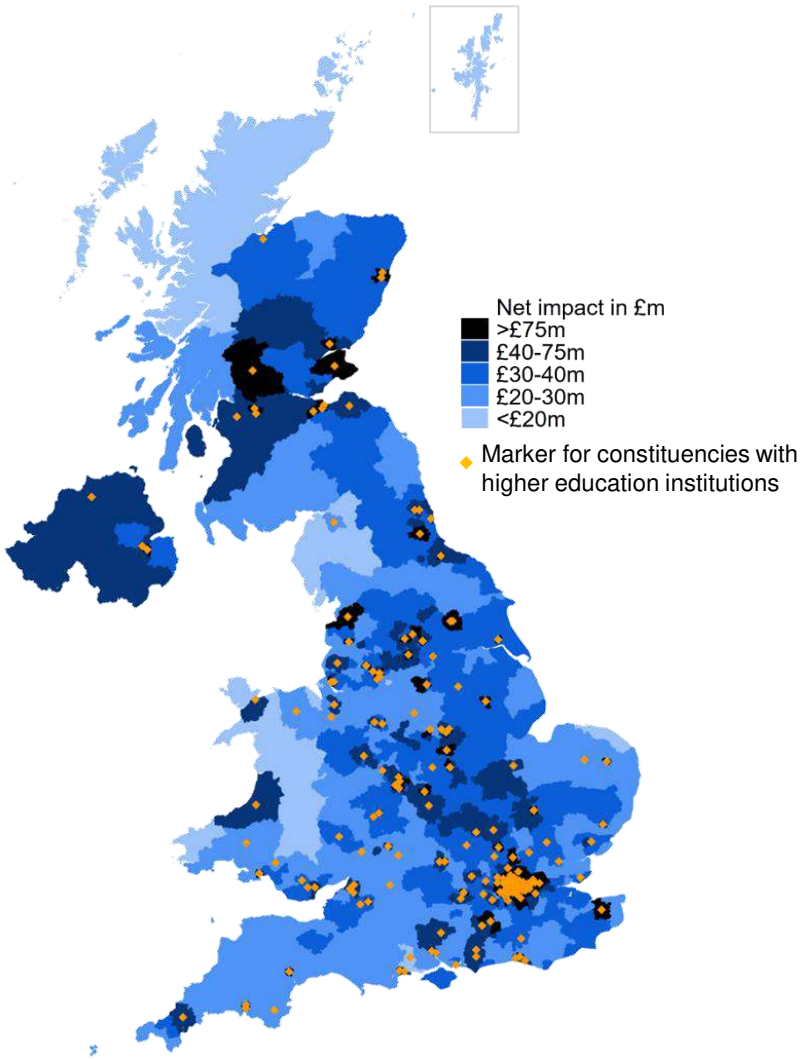
6.4 Impact by parliamentary constituency

To analyse the impact of international students on the UK economy at a more granular level, we further split the above net impacts by **parliamentary constituency** (Figure 25).

As discussed in Section 3.2.3, note that, given that there is no official information on the specific residency location of international students while studying, we have assumed that the residency distribution of international students is the same as that for all students 'usually resident' in the UK (i.e., including both UK and non-UK domiciled students[116]). Therefore, we estimated the contribution of international students to the UK economy – by region of higher education institution – and then applied the same geographic distribution of *all* students' residency (from Census data) to *international* students. The analysis illustrates that the contribution of international students to the UK economy is clustered around the location of higher education institutions – but also demonstrates the economic contribution made by international students across the entire United Kingdom.

[116] In addition, due to data availability issues, note that 2021 Census data is used for England and Wales, while 2011 Census data is used for Scotland and Northern Ireland. For a more detailed discussion of the limitations associated with the Census data, please refer to Section 3.2.3.

Figure 25 Net impact associated with the 2021/22 cohort, by parliamentary constituency



Note: All 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.***

6.4.1 Average impact per constituency in each region

Table 17 summarises the average impact per parliamentary constituency, by UK region. On average across the 650 parliamentary constituencies, international students make a **£58m net economic contribution to the UK economy per constituency**. This is equivalent to **£560** per member of the resident population (after all costs have been accounted for).

The average impact was highest for parliamentary constituencies in **London** (with an average net impact of **£131 million** per constituency, equivalent to **£1,040** per resident). The average impact per parliamentary constituency in the **North East** and **Scotland** was estimated at **£640** and **£750** respectively per member of the resident

population; between **£500** and **£510** per member of the resident population in the **East and West Midlands**, **Northern Ireland**, and **Yorkshire and the Humber**; and between **£360** and **£390** in the **North West**, **South East**, **South West**, **the East of England**, and **Wales**.

Table 17 Average impact associated with the 2021/22 cohort per parliamentary constituency, by region

Region	# of 1st year students	Benefits	Costs	Net impact	
				Total	Per resident
East of England	430	£44m	£4m	**£40m**	**£360**
East Midlands	525	£60m	£5m	**£55m**	**£500**
London	1,355	£150m	£19m	**£131m**	**£1,040**
North East	645	£68m	£6m	**£62m**	**£640**
North West	370	£45m	£4m	**£41m**	**£390**
South East	415	£47m	£4m	**£43m**	**£380**
South West	360	£43m	£4m	**£39m**	**£370**
West Midlands	505	£58m	£5m	**£52m**	**£500**
Yorkshire & the Humber	580	£60m	£6m	**£54m**	**£510**
Wales	375	£36m	£4m	**£31m**	**£390**
Scotland	745	£80m	£9m	**£71m**	**£750**
Northern Ireland	700	£61m	£8m	**£53m**	**£500**
Average	**585**	**£64m**	**£7m**	**£58m**	**£560**

Note: Numbers of students are rounded to the nearest 5; total estimates are rounded to the nearest £1 million; and estimates per resident are rounded to the nearest £10. All estimates are presented in 2021/22 prices and discounted to reflect net present values. Estimates of the total resident population by parliamentary constituency were based on mid-2020 population data published by the House of Commons Library (2021). 2020 data was used as it was the most recent year for which data by parliamentary constituency was available for the entire UK. ***Source: London Economics' analysis***

6.4.2 Impact by constituency

The above consideration of average impacts per constituency by region does not reflect the particular concentration of international students within individual constituencies.

Table 18 summarises 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 estimated number of international first-year students resident in **Glasgow Central** (**3,060**), the analysis indicates that the contribution to the UK economy of the international students in the 2021/22 cohort resident in Glasgow Central stands at approximately **£292m**, which is equivalent to **£2,720** per member of the resident population. The other constituencies where international students make the greatest contribution to the UK economy are **Holborn and St Pancras** (**£291m** (**£1,720**)), **Sheffield Central** (**£273m** (**£1,930**)), **Nottingham South**

(**£271m** (**£2,190**)), **Edinburgh East** (**£268m** (**£2,420**)) and **Newcastle Upon Tyne East** (**£264m** (**£2,560**)).

Note that there are constituencies from almost all UK regions represented on the top-20 list, with international students in **Liverpool, Riverside** (North West) contributing **£208m** (**£1,480**); **Birmingham, Ladywood** (West Midlands) contributing **£204m** (**£1,340**); **Cambridge** (East of England) contributing **£203m** (**£1,750**); and **Oxford East** (South East) contributing **£199m** (**£1,640**).

In Table 19, we present the 20 constituencies where international students have the relatively lowest net economic impact on the UK economy, while in Figure 26, we present a detailed mapping of net economic impact by parliamentary constituency – separately for each of the 12 UK regions. Finally, detailed information on the total contribution of international students in *every* parliamentary constituency is presented in Table 26 in Annex A2.5.

Table 18 Total costs, benefits, and net impact of international students in the top 20 parliamentary constituencies in terms of net impact

Parliamentary Constituency		Region	# of first-year students			Benefits	Costs	Net impact	
			EU	Non-EU	Total			Total	Per resident
1	Glasgow Central	Scotland	315	2,745	**3,060**	£330m	£37m	**£292m**	**£2,720**
2	Holborn and St Pancras	London	330	2,665	**2,995**	£332m	£41m	**£291m**	**£1,720**
3	Sheffield Central	Yorkshire & the Humber	100	2,815	**2,915**	£302m	£29m	**£273m**	**£1,930**
4	Nottingham South	East Midlands	125	2,475	**2,600**	£297m	£27m	**£271m**	**£2,190**
5	Edinburgh East	Scotland	285	2,515	**2,800**	£302m	£34m	**£268m**	**£2,420**
6	Newcastle upon Tyne East	North East	125	2,640	**2,765**	£292m	£27m	**£264m**	**£2,560**
7	West Ham	London	295	2,370	**2,665**	£295m	£37m	**£258m**	**£1,360**
8	Leeds Central	Yorkshire & the Humber	90	2,605	**2,695**	£279m	£27m	**£253m**	**£1,570**
9	Aberdeen North	Scotland	260	2,270	**2,530**	£272m	£31m	**£241m**	**£2,370**
10	Bethnal Green and Bow	London	275	2,205	**2,480**	£275m	£34m	**£240m**	**£1,540**
11	East Ham	London	270	2,170	**2,440**	£271m	£34m	**£237m**	**£1,430**
12	Bermondsey and Old Southwark	London	265	2,130	**2,395**	£266m	£33m	**£233m**	**£1,550**
13	Poplar and Limehouse	London	260	2,085	**2,345**	£260m	£32m	**£228m**	**£1,290**
14	Glasgow North	Scotland	240	2,120	**2,360**	£255m	£29m	**£226m**	**£2,840**
15	Dundee West	Scotland	225	1,960	**2,185**	£235m	£27m	**£208m**	**£2,330**
16	Liverpool, Riverside	North West	110	1,780	**1,890**	£230m	£22m	**£208m**	**£1,480**
17	Birmingham, Ladywood	West Midlands	95	1,870	**1,965**	£225m	£21m	**£204m**	**£1,340**
18	Cambridge	East of England	160	2,025	**2,185**	£226m	£23m	**£203m**	**£1,750**
19	Brent Central	London	230	1,855	**2,085**	£231m	£29m	**£202m**	**£1,370**
20	Oxford East	South East	205	1,720	**1,925**	£219m	£21m	**£199m**	**£1,640**
Average (all constituencies)			**50**	**540**	**585**	**£64m**	**£7m**	**£58m**	**£560**

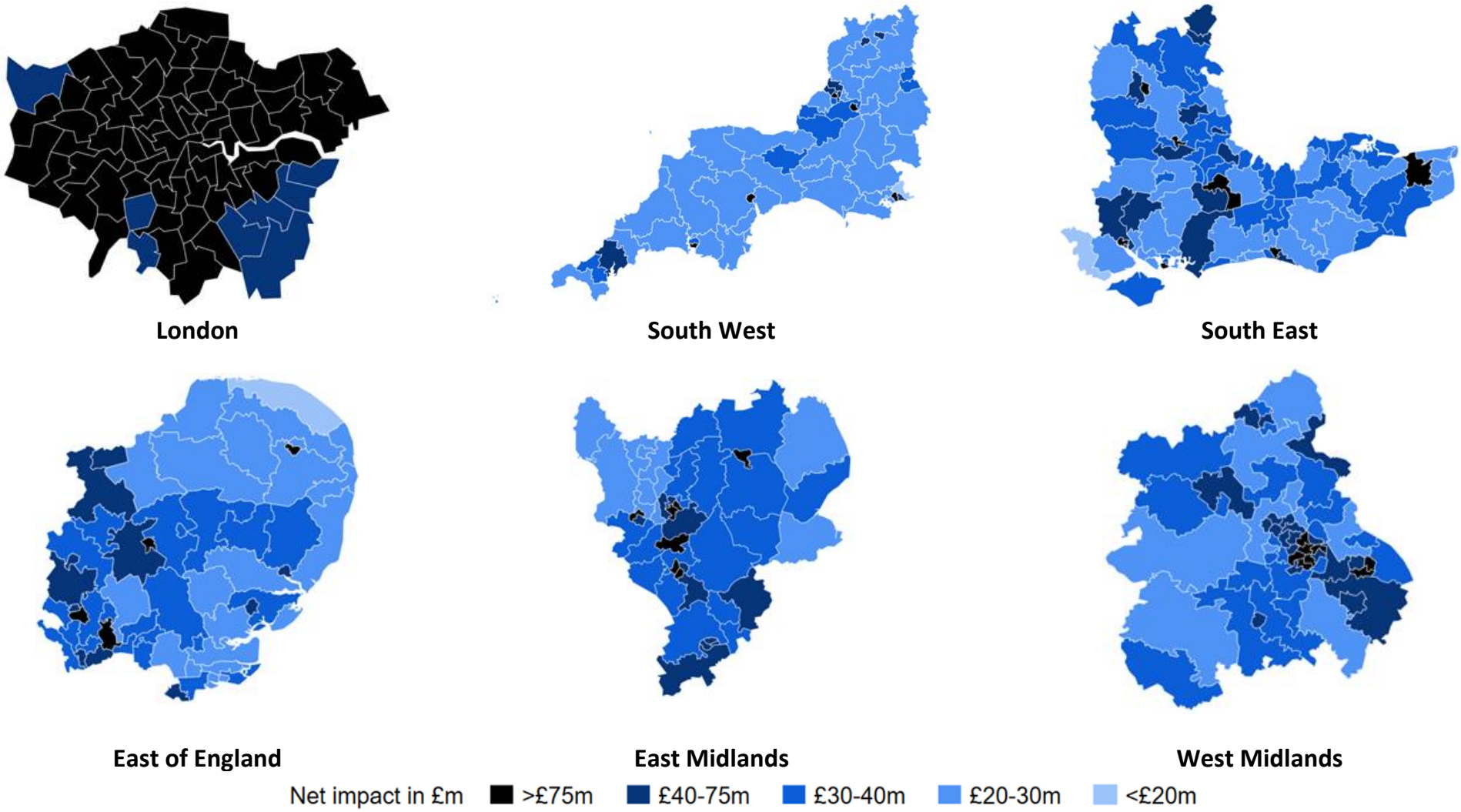
Note: Numbers of students are rounded to the nearest 5; total estimates are rounded to the nearest £1 million; and estimates per resident are rounded to the nearest £10. All estimates are presented in 2021/22 prices and discounted to reflect net present values. ***Source: London Economics' analysis***

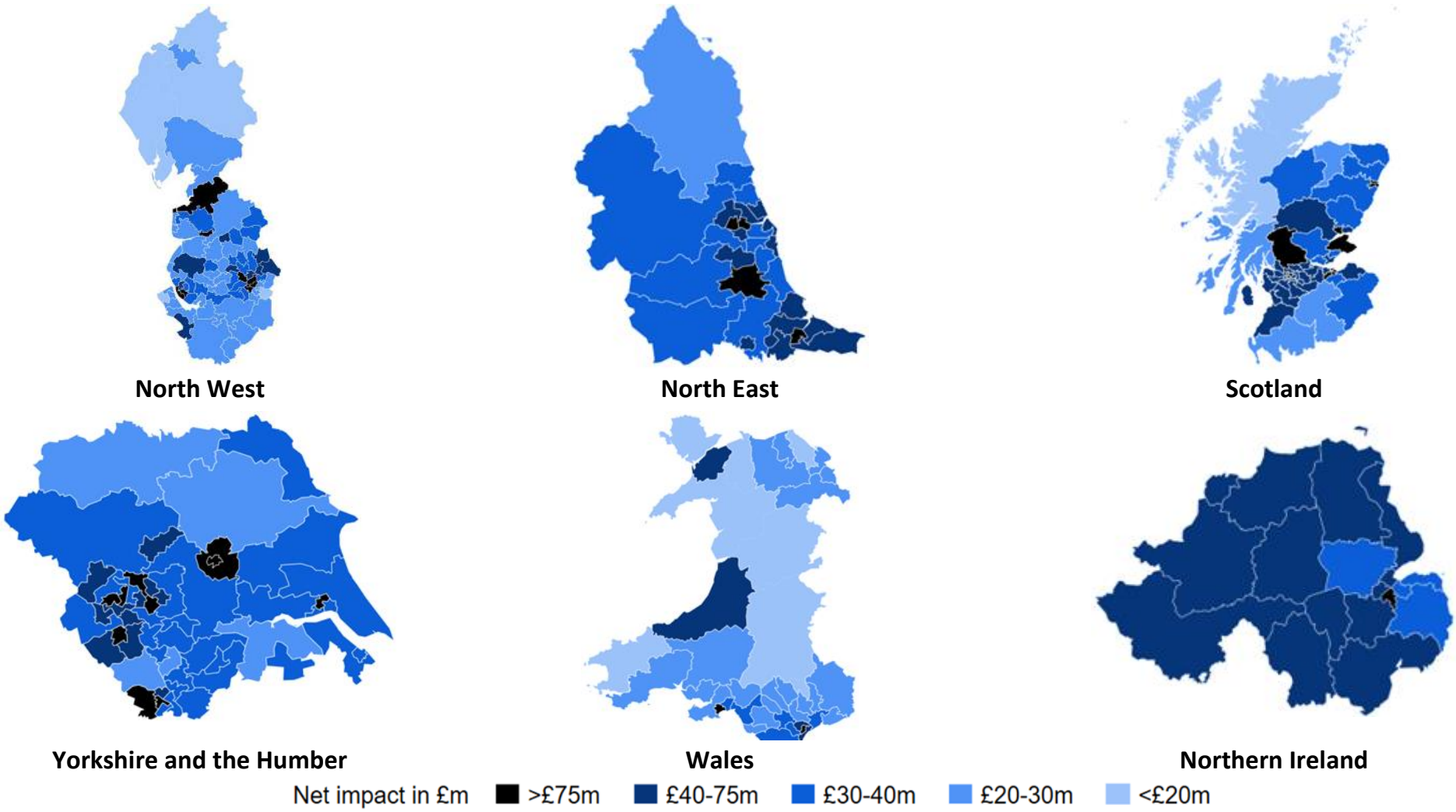
Table 19 Total costs, benefits, and net impact of international students in the bottom 20 parliamentary constituencies in terms of net impact

Parliamentary Constituency		Region	# of first-year students			Benefits	Costs	Net impact	
			EU	Non-EU	Total			Total	Per resident
631	New Forest West	South East	20	170	**190**	£22m	£2m	**£20m**	**£230**
632	Ynys Mon	Wales	20	210	**230**	£22m	£3m	**£20m**	**£280**
633	Wirral West	North West	10	165	**175**	£21m	£2m	**£19m**	**£280**
634	Christchurch	South West	15	160	**175**	£21m	£2m	**£19m**	**£220**
635	Preseli Pembrokeshire	Wales	20	210	**230**	£22m	£3m	**£19m**	**£240**
636	Delyn	Wales	20	205	**225**	£22m	£3m	**£19m**	**£270**
637	Penrith and The Border	North West	10	160	**170**	£21m	£2m	**£19m**	**£220**
638	Barrow and Furness	North West	10	160	**170**	£21m	£2m	**£19m**	**£220**
639	North Norfolk	East of England	15	180	**195**	£20m	£2m	**£18m**	**£200**
640	Blaenau Gwent	Wales	20	195	**215**	£20m	£2m	**£18m**	**£260**
641	Workington	North West	10	140	**150**	£18m	£2m	**£16m**	**£210**
642	Brecon and Radnorshire	Wales	15	175	**190**	£18m	£2m	**£16m**	**£240**
643	Copeland	North West	10	135	**145**	£18m	£2m	**£16m**	**£200**
644	Aberconwy	Wales	15	170	**185**	£18m	£2m	**£16m**	**£260**
645	Montgomeryshire	Wales	15	165	**180**	£17m	£2m	**£15m**	**£240**
646	Ross, Skye, and Lochaber	Scotland	15	140	**155**	£17m	£2m	**£15m**	**£220**
647	Caithness, Sutherland, and Easter Ross	Scotland	15	140	**155**	£17m	£2m	**£15m**	**£250**
648	Dwyfor Meirionnydd	Wales	15	160	**175**	£17m	£2m	**£15m**	**£240**
649	Orkney and Shetland	Scotland	10	80	**90**	£10m	£1m	**£9m**	**£190**
650	Na h-Eileanan An Iar	Scotland	10	75	**85**	£9m	£1m	**£8m**	**£290**
Average (all constituencies)			**50**	**540**	**585**	**£64m**	**£7m**	**£58m**	**£560**

Note: Numbers of students are rounded to the nearest 5; total estimates are rounded to the nearest £1 million; and estimates per resident are rounded to the nearest £10. All estimates are presented in 2021/22 prices and discounted to reflect net present values. ***Source: London Economics' analysis***

Figure 26 Total net impact on the UK by parliamentary constituency – separately for each region





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.

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Annex 2 Supplementary information

A2.1 Public costs for students and dependants

Table 20 provides a detailed overview of the estimated cost of providing public services per international student or adult dependant and child dependant per year - by type of public service and region (where available/applicable).

Table 20 'Cost public service provision per student or adult dependant and per child dependant per year, by type of service and region

Region	EAST	EMID	LOND	NEAS	NWES	SEAS	SWES	WMID	YORH	WALE	SCOT	NIRE
Per student/adult dependant												
Health[1]	£232	£232	£232	£232	£232	£232	£232	£232	£232	£232	£232	£232
Education[2]	-	-	-	-	-	-	-	-	-	-	-	-
General public services	£149	£138	£153	£151	£118	£153	£140	£175	£111	£214	£348	£452
Defence	£3	£2	£4	£2	£2	£3	£3	£2	£2	£1	£1	-
Public order[3]	£456	£496	£827	£566	£556	£440	£442	£484	£537	£567	£604	£746
Economic affairs	£3,293	£2,802	£4,637	£2,770	£3,042	£3,281	£3,099	£2,971	£2,876	£3,051	£3,496	£2,955
Environment	£179	£123	£146	£131	£427	£140	£187	£116	£138	£226	£288	£166
Housing	£150	£125	£328	£194	£143	£142	£127	£167	£162	£280	£438	£596
Recreation[4]	£104	£115	£207	£138	£135	£109	£113	£117	£142	£222	£236	£287
Non-identifiable [1, 5]	£2,002	£2,002	£2,002	£2,002	£2,002	£2,002	£2,002	£2,002	£2,002	£2,002	£2,002	£2,002
Total	**£6,568**	**£6,035**	**£8,536**	**£6,185**	**£6,657**	**£6,503**	**£6,345**	**£6,265**	**£6,203**	**£6,796**	**£7,645**	**£7,436**
Per child dependant												
Health[1]	£232	£232	£232	£232	£232	£232	£232	£232	£232	£232	£232	£232
Education[2]	£6,169	£6,264	£6,704	£6,580	£6,100	£5,859	£6,123	£6,307	£6,376	£7,355	£7,411	£5,631
General public services	£149	£138	£153	£151	£118	£153	£140	£175	£111	£214	£348	£452
Defence	£3	£2	£4	£2	£2	£3	£3	£2	£2	£1	£1	-
Public order[3]	£456	£496	£827	£566	£556	£440	£442	£484	£537	£567	£604	£746
Economic affairs	£3,293	£2,802	£4,637	£2,770	£3,042	£3,281	£3,099	£2,971	£2,876	£3,051	£3,496	£2,955
Environment	£179	£123	£146	£131	£427	£140	£187	£116	£138	£226	£288	£166
Housing	£150	£125	£328	£194	£143	£142	£127	£167	£162	£280	£438	£596
Recreation[4]	£104	£115	£207	£138	£135	£109	£113	£117	£142	£222	£236	£287
Non-identifiable [1, 5]	£2,002	£2,002	£2,002	£2,002	£2,002	£2,002	£2,002	£2,002	£2,002	£2,002	£2,002	£2,002
Total	**£12,738**	**£12,299**	**£15,240**	**£12,765**	**£12,757**	**£12,362**	**£12,467**	**£12,572**	**£12,579**	**£14,151**	**£15,056**	**£13,066**

Note: All values constitute annual costs per head, presented in 2021/22 prices. We assume the same costs per head for EU and non-EU students in the 2021/22 cohort.

[1] Indicates costs which do not differ between regions (due to a lack of breakdown in the underlying data). [2] The costs of pre-primary, primary and secondary education are applicable to child dependants only. [3] Public order and safety. [4] Recreation, culture, and religion. [5] Non-identifiable and overseas.

Source: London Economics' analysis based on a range of sources (see Section 3.3 for more detail)

A2.2 Benefits by mode of study

The following tables present the impact on the UK economy of the fee, non-fee, and visitor income associated with international students in the 2021/22 cohort (over their total study duration), per student and in aggregate, separately by domicile (EU versus non-EU), mode, and level of study.

Table 21 Impact of tuition fee income associated with the 2021/22 cohort, by level of study, domicile, and study mode

Level and mode	£ per student			Total, £bn		
	EU	Non-EU	Average	EU	Non-EU	Total
Full-time students						
Other undergraduate	£43,000	£41,000	**£41,000**	£0.0bn	£0.4bn	**£0.4bn**
First degree	£123,000	£123,000	**£123,000**	£1.6bn	£10.0bn	**£11.6bn**
Postgraduate (taught)	£36,000	£36,000	**£36,000**	£0.4bn	£8.2bn	**£8.7bn**
Postgraduate (research)	£93,000	£92,000	**£92,000**	£0.2bn	£1.0bn	**£1.2bn**
Average	**£82,000**	**£59,000**	**£61,000**			
Total				**£2.2bn**	**£19.6bn**	**£21.9bn**
Part-time students						
Other undergraduate	£37,000	£33,000	**£34,000**	£0.0bn	£0.3bn	**£0.4bn**
First degree	£74,000	£77,000	**£76,000**	£0.0bn	£0.0bn	**£0.0bn**
Postgraduate (taught)	£29,000	£31,000	**£30,000**	£0.1bn	£0.2bn	**£0.3bn**
Postgraduate (research)	£62,000	£65,000	**£64,000**	£0.0bn	£0.0bn	**£0.1bn**
Average	**£36,000**	**£34,000**	**£35,000**			
Total				**£0.1bn**	**£0.6bn**	**£0.7bn**

Note: Values per student (weighted by the relevant student populations) are rounded to the nearest £1,000, and total values are rounded to the nearest £0.1 billion. 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

Table 22 Impact of non-tuition fee income associated with the 2021/22 cohort, by level of study, domicile, and study mode

Level and mode	£ per student			Total, £bn		
	EU	Non-EU	Average	EU	Non-EU	Total
Full-time students						
Other undergraduate	£24,000	£26,000	**£26,000**	£0.0bn	£0.2bn	**£0.3bn**
First degree	£73,000	£79,000	**£78,000**	£0.9bn	£6.4bn	**£7.3bn**
Postgraduate (taught)	£34,000	£34,000	**£34,000**	£0.4bn	£7.8bn	**£8.2bn**
Postgraduate (research)	£87,000	£87,000	**£87,000**	£0.2bn	£1.0bn	**£1.2bn**
Average	**£56,000**	**£46,000**	**£47,000**			
Total				**£1.5bn**	**£15.4bn**	**£17.0bn**
Part-time students						
Other undergraduate	£59,000	£64,000	**£63,000**	£0.1bn	£0.6bn	**£0.7bn**
First degree	£116,000	£122,000	**£121,000**	£0.0bn	£0.1bn	**£0.1bn**
Postgraduate (taught)	£75,000	£75,000	**£75,000**	£0.2bn	£0.5bn	**£0.7bn**
Postgraduate (research)	£162,000	£154,000	**£156,000**	£0.0bn	£0.1bn	**£0.1bn**
Average	**£79,000**	**£73,000**	**£74,000**			
Total				**£0.3bn**	**£1.3bn**	**£1.6bn**

Note: Values per student (weighted by the relevant student populations) are rounded to the nearest £1,000, and total values are rounded to the nearest £0.1 billion. 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

Table 23 Impact of visitor income associated with the 2021/22 cohort, by level of study, domicile, and study mode

Level and mode	£ per student			Total, £bn		
	EU	Non-EU	Average	EU	Non-EU	Total
Full-time students						
Other undergraduate	£1,000	£1,000	**£1,000**	£0.0bn	£0.0bn	**£0.0bn**
First degree	£4,000	£4,000	**£4,000**	£0.1bn	£0.3bn	**£0.4bn**
Postgraduate (taught)	£1,000	£1,000	**£1,000**	£0.0bn	£0.2bn	**£0.2bn**
Postgraduate (research)	£4,000	£3,000	**£3,000**	£0.0bn	£0.0bn	**£0.0bn**
Average	**£3,000**	**£2,000**	**£2,000**			
Total				**£0.1bn**	**£0.6bn**	**£0.7bn**
Part-time students						
Other undergraduate	£2,000	£2,000	**£2,000**	£0.0bn	£0.0bn	**£0.0bn**
First degree	£6,000	£5,000	**£5,000**	£0.0bn	£0.0bn	**£0.0bn**
Postgraduate (taught)	£2,000	£2,000	**£2,000**	£0.0bn	£0.0bn	**£0.0bn**
Postgraduate (research)	£6,000	£5,000	**£5,000**	£0.0bn	£0.0bn	**£0.0bn**
Average	**£3,000**	**£2,000**	**£2,000**			
Total				**£0.0bn**	**£0.0bn**	**£0.1bn**

Note: Values per student (weighted by the relevant student populations) are rounded to the nearest £1,000, and total values are rounded to the nearest £0.1 billion. 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

A2.3 Costs by mode of study

Table 24 presents the costs of public service provision associated with international students in the 2021/22 cohort (over their total study duration), per student and in aggregate, separately by domicile (EU versus non-EU), study mode, and level of study.

Table 24 Public costs associated with the 2021/22 cohort, by level of study, domicile, and study mode

Level and mode	£ per student			Total, £bn		
	EU	Non-EU	Average	EU	Non-EU	Total
Full-time students						
Other undergraduate	£6,000	£6,000	**£6,000**	£0.0bn	£0.1bn	**£0.1bn**
First degree	£18,000	£18,000	**£18,000**	£0.2bn	£1.4bn	**£1.7bn**
Postgraduate (taught)	£7,000	£9,000	**£9,000**	£0.1bn	£2.0bn	**£2.1bn**
Postgraduate (research)	£17,000	£23,000	**£22,000**	£0.0bn	£0.3bn	**£0.3bn**
Average	**£13,000**	**£11,000**	**£12,000**			
Total				**£0.4bn**	**£3.8bn**	**£4.2bn**
Part-time students						
Other undergraduate	£11,000	£11,000	**£11,000**	£0.0bn	£0.1bn	**£0.1bn**
First degree	£22,000	£23,000	**£23,000**	£0.0bn	£0.0bn	**£0.0bn**
Postgraduate (taught)	£11,000	£15,000	**£14,000**	£0.0bn	£0.1bn	**£0.1bn**
Postgraduate (research)	£23,000	£31,000	**£29,000**	£0.0bn	£0.0bn	**£0.0bn**
Average	**£12,000**	**£14,000**	**£14,000**			
Total				**£0.1bn**	**£0.2bn**	**£0.3bn**

Note: Values per student (weighted by the relevant student populations) are rounded to the nearest £1,000, and total values are rounded to the nearest £0.1 billion. 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

A2.4 Net impact by level of study

Table 25 presents the estimated net impact of international students on the UK economy, by domicile and level of study. The net impact per EU domiciled first degree student was estimated at **£182,000**, compared to **£70,000** for a postgraduate taught degree. The comparative figures for non-EU students were **£187,000** for a first degree and **£63,000** for a postgraduate taught degree.

Table 25 Net impact associated with the 2021/22 cohort, by level of study and domicile

Level of study	£ per student			Total, £bn		
	EU	Non-EU	Average	EU	Non-EU	Total
Other undergraduate	£78,000	£76,000	**£76,000**	£0.1bn	£1.4bn	**£1.5bn**
First degree	£182,000	£187,000	**£187,000**	£2.4bn	£15.3bn	**£17.7bn**
Postgraduate (taught)	£70,000	£63,000	**£63,000**	£1.0bn	£14.9bn	**£15.9bn**
Postgraduate (research)	£172,000	£162,000	**£164,000**	£0.4bn	£1.9bn	**£2.3bn**
Average	**£125,000**	**£96,000**	**£98,000**			
Total				**£3.9bn**	**£33.5bn**	**£37.4bn**

Note: Values per student (weighted by the relevant student populations) are rounded to the nearest £1,000, and total values are rounded to the nearest £0.1 billion. 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

A2.5 Net impact by parliamentary constituency

Table 26 presents the total impact of international students on the UK economy for each parliamentary constituency.

Table 26 Net impact of international students by parliamentary constituency

#	Parliamentary constituency	Region	# of 1st-year students	Net impact
1	Berwick-upon-Tweed	North East	240	£23.0m
2	Bishop Auckland	North East	395	£37.6m
3	Blaydon	North East	375	£36.0m
4	Blyth Valley	North East	355	£34.1m
5	City of Durham	North East	1,940	£185.4m
6	Darlington	North East	445	£42.4m
7	Easington	North East	400	£38.3m
8	Gateshead	North East	630	£60.1m
9	Hartlepool	North East	505	£48.3m
10	Hexham	North East	335	£31.8m
11	Houghton and Sunderland South	North East	415	£39.5m
12	Jarrow	North East	405	£38.6m
13	Middlesbrough	North East	1,030	£98.4m
14	Middlesbrough South & East Cleveland	North East	470	£44.8m
15	Newcastle upon Tyne Central	North East	1,790	£171.1m
16	Newcastle upon Tyne East	North East	2,770	£264.4m
17	Newcastle upon Tyne North	North East	550	£52.5m
18	North Durham	North East	425	£40.4m
19	North Tyneside	North East	475	£45.3m
20	North West Durham	North East	405	£38.5m
21	Redcar	North East	455	£43.3m
22	Sedgefield	North East	400	£38.4m
23	South Shields	North East	430	£41.0m
24	Stockton North	North East	490	£46.6m
25	Stockton South	North East	570	£54.7m
26	Sunderland Central	North East	780	£74.3m
27	Tynemouth	North East	485	£46.2m
28	Wansbeck	North East	340	£32.6m
29	Washington and Sunderland West	North East	420	£39.9m
30	Altrincham and Sale West	North West	290	£32.1m
31	Ashton-under-Lyne	North West	280	£30.8m
32	Barrow and Furness	North West	170	£18.6m
33	Birkenhead	North West	265	£29.2m
34	Blackburn	North West	495	£54.4m
35	Blackley and Broughton	North West	625	£68.9m
36	Blackpool North and Cleveleys	North West	215	£23.4m
37	Blackpool South	North West	215	£23.6m
38	Bolton North East	North West	350	£38.6m
39	Bolton South East	North West	455	£49.8m
40	Bolton West	North West	265	£28.9m

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

Table 26 Continued

#	Parliamentary constituency	Region	# of 1st-year students	Net impact
41	Bootle	North West	295	£32.2m
42	Burnley	North West	285	£31.1m
43	Bury North	North West	290	£31.7m
44	Bury South	North West	310	£33.8m
45	Carlisle	North West	235	£26.0m
46	Cheadle	North West	260	£28.3m
47	Chorley	North West	245	£27.1m
48	City of Chester	North West	490	£53.7m
49	Congleton	North West	230	£25.2m
50	Copeland	North West	145	£15.9m
51	Crewe and Nantwich	North West	270	£29.9m
52	Denton and Reddish	North West	225	£24.6m
53	Eddisbury	North West	255	£28.3m
54	Ellesmere Port and Neston	North West	240	£26.4m
55	Fylde	North West	210	£23.2m
56	Garston and Halewood	North West	290	£31.9m
57	Halton	North West	255	£28.0m
58	Hazel Grove	North West	180	£19.8m
59	Heywood and Middleton	North West	310	£34.2m
60	Hyndburn	North West	285	£31.2m
61	Knowsley	North West	300	£33.1m
62	Lancaster and Fleetwood	North West	840	£92.3m
63	Leigh	North West	270	£29.5m
64	Liverpool, Riverside	North West	1,890	£208.0m
65	Liverpool, Walton	North West	380	£41.5m
66	Liverpool, Wavertree	North West	705	£77.5m
67	Liverpool, West Derby	North West	320	£35.0m
68	Macclesfield	North West	215	£23.6m
69	Makerfield	North West	255	£27.8m
70	Manchester Central	North West	1,800	£197.7m
71	Manchester, Gorton	North West	1,220	£134.0m
72	Manchester, Withington	North West	820	£90.4m
73	Morecambe and Lunesdale	North West	225	£24.6m
74	Oldham East and Saddleworth	North West	375	£41.3m
75	Oldham West and Royton	North West	465	£51.0m
76	Pendle	North West	300	£33.2m
77	Penrith and The Border	North West	170	£18.7m
78	Preston	North West	700	£77.0m
79	Ribble Valley	North West	250	£27.5m
80	Rochdale	North West	430	£47.4m

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

Table 26 Continued

#	Parliamentary constituency	Region	# of 1st-year students	Net impact
81	Rossendale and Darwen	North West	265	£29.1m
82	Salford and Eccles	North West	795	£87.4m
83	Sefton Central	North West	215	£23.8m
84	South Ribble	North West	235	£26.0m
85	Southport	North West	250	£27.3m
86	St Helens North	North West	235	£25.7m
87	St Helens South and Whiston	North West	280	£30.6m
88	Stalybridge and Hyde	North West	255	£28.3m
89	Stockport	North West	235	£26.1m
90	Stretford and Urmston	North West	350	£38.2m
91	Tatton	North West	205	£22.6m
92	Wallasey	North West	245	£27.0m
93	Warrington North	North West	245	£26.8m
94	Warrington South	North West	305	£33.6m
95	Weaver Vale	North West	230	£25.3m
96	West Lancashire	North West	585	£64.2m
97	Westmorland and Lonsdale	North West	200	£22.2m
98	Wigan	North West	275	£30.3m
99	Wirral South	North West	190	£21.0m
100	Wirral West	North West	175	£19.4m
101	Workington	North West	150	£16.5m
102	Worsley and Eccles South	North West	305	£33.4m
103	Wyre and Preston North	North West	280	£30.7m
104	Wythenshawe and Sale East	North West	325	£35.5m
105	Barnsley Central	Yorkshire & Humber	325	£30.2m
106	Barnsley East	Yorkshire & Humber	305	£28.6m
107	Batley and Spen	Yorkshire & Humber	495	£46.5m
108	Beverley and Holderness	Yorkshire & Humber	375	£35.1m
109	Bradford East	Yorkshire & Humber	805	£75.1m
110	Bradford South	Yorkshire & Humber	545	£51.1m
111	Bradford West	Yorkshire & Humber	1,075	£100.6m
112	Brigg and Goole	Yorkshire & Humber	280	£26.3m
113	Calder Valley	Yorkshire & Humber	385	£36.0m
114	Cleethorpes	Yorkshire & Humber	325	£30.5m
115	Colne Valley	Yorkshire & Humber	510	£47.9m
116	Dewsbury	Yorkshire & Humber	615	£57.6m
117	Don Valley	Yorkshire & Humber	340	£31.7m
118	Doncaster Central	Yorkshire & Humber	400	£37.5m
119	Doncaster North	Yorkshire & Humber	340	£31.9m
120	East Yorkshire	Yorkshire & Humber	325	£30.4m

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

Table 26 Continued

#	Parliamentary constituency	Region	# of 1st-year students	Net impact
121	Elmet and Rothwell	Yorkshire & Humber	365	£34.0m
122	Great Grimsby	Yorkshire & Humber	350	£32.6m
123	Halifax	Yorkshire & Humber	465	£43.7m
124	Haltemprice and Howden	Yorkshire & Humber	325	£30.5m
125	Harrogate and Knaresborough	Yorkshire & Humber	455	£42.4m
126	Hemsworth	Yorkshire & Humber	325	£30.6m
127	Huddersfield	Yorkshire & Humber	815	£76.4m
128	Keighley	Yorkshire & Humber	440	£41.2m
129	Kingston upon Hull East	Yorkshire & Humber	360	£33.9m
130	Kingston upon Hull North	Yorkshire & Humber	875	£81.7m
131	Kingston upon Hull West and Hessle	Yorkshire & Humber	385	£36.0m
132	Leeds Central	Yorkshire & Humber	2,700	£252.5m
133	Leeds East	Yorkshire & Humber	550	£51.6m
134	Leeds North East	Yorkshire & Humber	505	£47.1m
135	Leeds North West	Yorkshire & Humber	1,505	£140.7m
136	Leeds West	Yorkshire & Humber	625	£58.6m
137	Morley and Outwood	Yorkshire & Humber	365	£34.1m
138	Normanton, Pontefract and Castleford	Yorkshire & Humber	370	£34.5m
139	Penistone and Stocksbridge	Yorkshire & Humber	310	£29.1m
140	Pudsey	Yorkshire & Humber	420	£39.3m
141	Richmond (Yorks)	Yorkshire & Humber	320	£29.9m
142	Rother Valley	Yorkshire & Humber	345	£32.1m
143	Rotherham	Yorkshire & Humber	385	£36.2m
144	Scarborough and Whitby	Yorkshire & Humber	340	£31.7m
145	Scunthorpe	Yorkshire & Humber	365	£34.0m
146	Selby and Ainsty	Yorkshire & Humber	370	£34.7m
147	Sheffield Central	Yorkshire & Humber	2,915	£272.9m
148	Sheffield South East	Yorkshire & Humber	425	£39.7m
149	Sheffield, Brightside and Hillsborough	Yorkshire & Humber	610	£57.0m
150	Sheffield, Hallam	Yorkshire & Humber	840	£78.6m
151	Sheffield, Heeley	Yorkshire & Humber	420	£39.5m
152	Shipley	Yorkshire & Humber	360	£33.7m
153	Skipton and Ripon	Yorkshire & Humber	325	£30.4m
154	Thirsk and Malton	Yorkshire & Humber	310	£28.9m
155	Wakefield	Yorkshire & Humber	385	£35.9m
156	Wentworth and Dearne	Yorkshire & Humber	355	£33.1m
157	York Central	Yorkshire & Humber	1,460	£136.8m
158	York Outer	Yorkshire & Humber	875	£81.7m
159	Amber Valley	East Midlands	240	£24.8m
160	Ashfield	East Midlands	285	£29.8m

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

Table 26 Continued

#	Parliamentary constituency	Region	# of 1st-year students	Net impact
161	Bassetlaw	East Midlands	295	£30.9m
162	Bolsover	East Midlands	265	£27.9m
163	Boston and Skegness	East Midlands	310	£32.6m
164	Bosworth	East Midlands	310	£32.5m
165	Broxtowe	East Midlands	520	£54.1m
166	Charnwood	East Midlands	355	£36.8m
167	Chesterfield	East Midlands	270	£28.2m
168	Corby	East Midlands	420	£43.8m
169	Daventry	East Midlands	325	£33.9m
170	Derby North	East Midlands	720	£75.1m
171	Derby South	East Midlands	605	£63.3m
172	Derbyshire Dales	East Midlands	225	£23.7m
173	Erewash	East Midlands	275	£28.5m
174	Gainsborough	East Midlands	290	£30.2m
175	Gedling	East Midlands	315	£32.7m
176	Grantham and Stamford	East Midlands	335	£34.8m
177	Harborough	East Midlands	495	£51.8m
178	High Peak	East Midlands	280	£29.0m
179	Kettering	East Midlands	330	£34.2m
180	Leicester East	East Midlands	680	£71.0m
181	Leicester South	East Midlands	1,775	£185.2m
182	Leicester West	East Midlands	890	£92.7m
183	Lincoln	East Midlands	1,255	£130.8m
184	Loughborough	East Midlands	1,340	£139.7m
185	Louth and Horncastle	East Midlands	245	£25.8m
186	Mansfield	East Midlands	310	£32.5m
187	Mid Derbyshire	East Midlands	275	£28.5m
188	Newark	East Midlands	360	£37.8m
189	North East Derbyshire	East Midlands	260	£26.9m
190	North West Leicestershire	East Midlands	365	£38.1m
191	Northampton North	East Midlands	445	£46.2m
192	Northampton South	East Midlands	630	£66.0m
193	Nottingham East	East Midlands	1,600	£166.7m
194	Nottingham North	East Midlands	465	£48.3m
195	Nottingham South	East Midlands	2,600	£270.9m
196	Rushcliffe	East Midlands	510	£53.3m
197	Rutland and Melton	East Midlands	360	£37.4m
198	Sherwood	East Midlands	295	£31.0m
199	Sleaford and North Hykeham	East Midlands	365	£38.1m
200	South Derbyshire	East Midlands	330	£34.6m

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

Table 26 Continued

#	Parliamentary constituency	Region	# of 1st-year students	Net impact
201	South Holland and The Deepings	East Midlands	270	£28.3m
202	South Leicestershire	East Midlands	350	£36.3m
203	South Northamptonshire	East Midlands	410	£43.0m
204	Wellingborough	East Midlands	380	£39.6m
205	Aldridge-Brownhills	West Midlands	250	£25.9m
206	Birmingham, Edgbaston	West Midlands	965	£100.2m
207	Birmingham, Erdington	West Midlands	545	£56.6m
208	Birmingham, Hall Green	West Midlands	880	£91.2m
209	Birmingham, Hodge Hill	West Midlands	1,000	£103.7m
210	Birmingham, Ladywood	West Midlands	1,965	£204.0m
211	Birmingham, Northfield	West Midlands	470	£48.8m
212	Birmingham, Perry Barr	West Midlands	780	£81.0m
213	Birmingham, Selly Oak	West Midlands	1,495	£155.4m
214	Birmingham, Yardley	West Midlands	655	£68.3m
215	Bromsgrove	West Midlands	330	£34.5m
216	Burton	West Midlands	395	£40.8m
217	Cannock Chase	West Midlands	290	£29.9m
218	Coventry North East	West Midlands	730	£76.0m
219	Coventry North West	West Midlands	615	£63.7m
220	Coventry South	West Midlands	1,825	£189.5m
221	Dudley North	West Midlands	335	£34.5m
222	Dudley South	West Midlands	285	£29.4m
223	Halesowen and Rowley Regis	West Midlands	350	£36.6m
224	Hereford and South Herefordshire	West Midlands	295	£30.7m
225	Kenilworth and Southam	West Midlands	480	£49.9m
226	Lichfield	West Midlands	305	£31.5m
227	Ludlow	West Midlands	220	£22.7m
228	Meriden	West Midlands	410	£42.6m
229	Mid Worcestershire	West Midlands	310	£32.1m
230	Newcastle-under-Lyme	West Midlands	620	£64.6m
231	North Herefordshire	West Midlands	250	£25.8m
232	North Shropshire	West Midlands	350	£36.2m
233	North Warwickshire	West Midlands	290	£30.0m
234	Nuneaton	West Midlands	320	£33.4m
235	Redditch	West Midlands	290	£30.3m
236	Rugby	West Midlands	380	£39.6m
237	Shrewsbury and Atcham	West Midlands	380	£39.6m
238	Solihull	West Midlands	365	£38.1m
239	South Staffordshire	West Midlands	275	£28.7m
240	Stafford	West Midlands	325	£34.0m

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

Table 26 Continued

#	Parliamentary constituency	Region	# of 1st-year students	Net impact
241	Staffordshire Moorlands	West Midlands	225	£23.3m
242	Stoke-on-Trent Central	West Midlands	610	£63.3m
243	Stoke-on-Trent North	West Midlands	365	£38.0m
244	Stoke-on-Trent South	West Midlands	330	£34.2m
245	Stone	West Midlands	265	£27.3m
246	Stourbridge	West Midlands	310	£32.1m
247	Stratford-on-Avon	West Midlands	275	£28.5m
248	Sutton Coldfield	West Midlands	350	£36.3m
249	Tamworth	West Midlands	310	£32.4m
250	Telford	West Midlands	345	£35.6m
251	The Wrekin	West Midlands	485	£50.4m
252	Walsall North	West Midlands	415	£43.0m
253	Walsall South	West Midlands	590	£61.1m
254	Warley	West Midlands	620	£64.5m
255	Warwick and Leamington	West Midlands	700	£72.6m
256	West Bromwich East	West Midlands	495	£51.4m
257	West Bromwich West	West Midlands	465	£48.5m
258	West Worcestershire	West Midlands	315	£32.7m
259	Wolverhampton North East	West Midlands	455	£47.1m
260	Wolverhampton South East	West Midlands	445	£46.3m
261	Wolverhampton South West	West Midlands	485	£50.5m
262	Worcester	West Midlands	570	£59.0m
263	Wyre Forest	West Midlands	300	£31.1m
264	Basildon and Billericay	East of England	310	£28.9m
265	Bedford	East of England	470	£43.5m
266	Braintree	East of England	295	£27.4m
267	Brentwood and Ongar	East of England	300	£27.8m
268	Broadland	East of England	265	£24.7m
269	Broxbourne	East of England	365	£34.1m
270	Bury St Edmunds	East of England	330	£30.7m
271	Cambridge	East of England	2,185	£202.9m
272	Castle Point	East of England	245	£22.5m
273	Central Suffolk and North Ipswich	East of England	330	£30.8m
274	Chelmsford	East of England	425	£39.2m
275	Clacton	East of England	220	£20.2m
276	Colchester	East of England	810	£75.0m
277	Epping Forest	East of England	370	£34.5m
278	Great Yarmouth	East of England	305	£28.4m
279	Harlow	East of England	345	£32.2m
280	Harwich and North Essex	East of England	390	£36.4m

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

Table 26 Continued

#	Parliamentary constituency	Region	# of 1st-year students	Net impact
281	Hemel Hempstead	East of England	345	£32.1m
282	Hertford and Stortford	East of England	385	£35.9m
283	Hertsmere	East of England	470	£43.5m
284	Hitchin and Harpenden	East of England	355	£33.1m
285	Huntingdon	East of England	350	£32.3m
286	Ipswich	East of England	445	£41.5m
287	Luton North	East of England	590	£54.7m
288	Luton South	East of England	810	£75.0m
289	Maldon	East of England	255	£23.7m
290	Mid Bedfordshire	East of England	450	£41.9m
291	Mid Norfolk	East of England	300	£28.0m
292	North East Bedfordshire	East of England	360	£33.2m
293	North East Cambridgeshire	East of England	305	£28.2m
294	North East Hertfordshire	East of England	300	£28.0m
295	North Norfolk	East of England	195	£18.0m
296	North West Cambridgeshire	East of England	435	£40.3m
297	North West Norfolk	East of England	240	£22.2m
298	Norwich North	East of England	300	£27.9m
299	Norwich South	East of England	1,275	£118.5m
300	Peterborough	East of England	500	£46.5m
301	Rayleigh and Wickford	East of England	280	£26.2m
302	Rochford and Southend East	East of England	375	£34.9m
303	Saffron Walden	East of England	390	£36.0m
304	South Basildon and East Thurrock	East of England	340	£31.5m
305	South Cambridgeshire	East of England	585	£54.2m
306	South East Cambridgeshire	East of England	365	£34.0m
307	South Norfolk	East of England	315	£29.0m
308	South Suffolk	East of England	280	£26.2m
309	South West Bedfordshire	East of England	350	£32.4m
310	South West Hertfordshire	East of England	410	£38.3m
311	South West Norfolk	East of England	270	£24.9m
312	Southend West	East of England	275	£25.4m
313	St Albans	East of England	390	£36.2m
314	Stevenage	East of England	330	£30.6m
315	Suffolk Coastal	East of England	260	£24.3m
316	Thurrock	East of England	555	£51.4m
317	Watford	East of England	520	£48.2m
318	Waveney	East of England	285	£26.5m
319	Welwyn Hatfield	East of England	995	£92.3m
320	West Suffolk	East of England	345	£32.2m

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

Table 26 Continued

#	Parliamentary constituency	Region	# of 1st-year students	Net impact
321	Witham	East of England	285	£26.5m
322	Barking	London	1,790	£173.5m
323	Battersea	London	1,055	£102.4m
324	Beckenham	London	615	£59.8m
325	Bermondsey and Old Southwark	London	2,395	£232.6m
326	Bethnal Green and Bow	London	2,475	£240.4m
327	Bexleyheath and Crayford	London	705	£68.4m
328	Brent Central	London	2,085	£202.3m
329	Brent North	London	1,775	£172.1m
330	Brentford and Isleworth	London	1,385	£134.2m
331	Bromley and Chislehurst	London	685	£66.5m
332	Camberwell and Peckham	London	1,575	£152.8m
333	Carshalton and Wallington	London	820	£79.5m
334	Chelsea and Fulham	London	1,220	£118.6m
335	Chingford and Woodford Green	London	800	£77.5m
336	Chipping Barnet	London	1,045	£101.4m
337	Cities of London and Westminster	London	1,915	£186.0m
338	Croydon Central	London	1,150	£111.8m
339	Croydon North	London	1,555	£151.0m
340	Croydon South	London	895	£86.8m
341	Dagenham and Rainham	London	1,150	£111.4m
342	Dulwich and West Norwood	London	1,115	£108.3m
343	Ealing Central and Acton	London	1,540	£149.3m
344	Ealing North	London	1,410	£137.0m
345	Ealing, Southall	London	1,210	£117.5m
346	East Ham	London	2,440	£237.0m
347	Edmonton	London	1,440	£139.7m
348	Eltham	London	865	£84.1m
349	Enfield North	London	1,120	£108.8m
350	Enfield, Southgate	London	865	£83.8m
351	Erith and Thamesmead	London	1,270	£123.3m
352	Feltham and Heston	London	1,475	£143.0m
353	Finchley and Golders Green	London	1,270	£123.2m
354	Greenwich and Woolwich	London	1,550	£150.6m
355	Hackney North and Stoke Newington	London	1,460	£141.5m
356	Hackney South and Shoreditch	London	1,535	£148.8m
357	Hammersmith	London	1,690	£164.0m
358	Hampstead and Kilburn	London	1,440	£139.9m
359	Harrow East	London	1,170	£113.5m
360	Harrow West	London	1,310	£127.1m

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Table 26 Continued

#	Parliamentary constituency	Region	# of 1st-year students	Net impact
361	Hayes and Harlington	London	1,380	£133.9m
362	Hendon	London	1,785	£173.1m
363	Holborn and St Pancras	London	2,995	£290.9m
364	Hornchurch and Upminster	London	785	£76.0m
365	Hornsey and Wood Green	London	1,165	£113.3m
366	Ilford North	London	1,250	£121.3m
367	Ilford South	London	1,940	£188.4m
368	Islington North	London	1,275	£123.7m
369	Islington South and Finsbury	London	1,725	£167.6m
370	Kensington	London	1,640	£159.3m
371	Kingston and Surbiton	London	1,515	£147.2m
372	Lewisham East	London	1,045	£101.3m
373	Lewisham West and Penge	London	910	£88.5m
374	Lewisham, Deptford	London	1,630	£158.3m
375	Leyton and Wanstead	London	1,080	£105.0m
376	Mitcham and Morden	London	1,095	£106.3m
377	Old Bexley and Sidcup	London	690	£66.7m
378	Orpington	London	600	£58.4m
379	Poplar and Limehouse	London	2,345	£227.5m
380	Putney	London	1,055	£102.4m
381	Richmond Park	London	1,050	£102.0m
382	Romford	London	795	£77.2m
383	Ruislip, Northwood and Pinner	London	730	£70.9m
384	Streatham	London	1,085	£105.1m
385	Sutton and Cheam	London	750	£72.6m
386	Tooting	London	1,005	£97.5m
387	Tottenham	London	1,740	£169.0m
388	Twickenham	London	1,060	£102.7m
389	Uxbridge and South Ruislip	London	1,540	£149.3m
390	Vauxhall	London	1,605	£155.7m
391	Walthamstow	London	1,270	£123.4m
392	West Ham	London	2,665	£258.5m
393	Westminster North	London	1,605	£155.9m
394	Wimbledon	London	760	£73.6m
395	Aldershot	South East	295	£30.6m
396	Arundel and South Downs	South East	280	£28.8m
397	Ashford	South East	355	£36.6m
398	Aylesbury	South East	350	£35.9m
399	Banbury	South East	345	£35.8m
400	Basingstoke	South East	295	£30.6m

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Table 26 Continued

#	Parliamentary constituency	Region	# of 1st-year students	Net impact
401	Beaconsfield	South East	300	£31.0m
402	Bexhill and Battle	South East	245	£25.4m
403	Bognor Regis and Littlehampton	South East	295	£30.4m
404	Bracknell	South East	325	£33.7m
405	Brighton, Kemptown	South East	660	£67.8m
406	Brighton, Pavilion	South East	1,165	£119.9m
407	Buckingham	South East	335	£34.6m
408	Canterbury	South East	1,235	£127.3m
409	Chatham and Aylesford	South East	290	£29.7m
410	Chesham and Amersham	South East	290	£29.7m
411	Chichester	South East	420	£43.2m
412	Crawley	South East	365	£37.7m
413	Dartford	South East	355	£36.7m
414	Dover	South East	265	£27.3m
415	East Hampshire	South East	285	£29.3m
416	East Surrey	South East	305	£31.4m
417	East Worthing and Shoreham	South East	275	£28.5m
418	Eastbourne	South East	355	£36.5m
419	Eastleigh	South East	285	£29.4m
420	Epsom and Ewell	South East	380	£39.1m
421	Esher and Walton	South East	355	£36.7m
422	Fareham	South East	245	£25.1m
423	Faversham and Mid Kent	South East	260	£26.5m
424	Folkestone and Hythe	South East	290	£30.0m
425	Gillingham and Rainham	South East	380	£39.2m
426	Gosport	South East	245	£25.2m
427	Gravesham	South East	325	£33.5m
428	Guildford	South East	1,010	£104.0m
429	Hastings and Rye	South East	300	£30.7m
430	Havant	South East	235	£24.0m
431	Henley	South East	280	£29.1m
432	Horsham	South East	330	£33.9m
433	Hove	South East	380	£39.2m
434	Isle of Wight	South East	325	£33.7m
435	Lewes	South East	250	£25.7m
436	Maidenhead	South East	310	£31.7m
437	Maidstone and The Weald	South East	325	£33.3m
438	Meon Valley	South East	245	£25.1m
439	Mid Sussex	South East	295	£30.2m
440	Milton Keynes North	South East	505	£52.1m

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

Table 26 Continued

#	Parliamentary constituency	Region	# of 1st-year students	Net impact
441	Milton Keynes South	South East	520	£53.7m
442	Mole Valley	South East	275	£28.5m
443	New Forest East	South East	210	£21.4m
444	New Forest West	South East	190	£19.5m
445	Newbury	South East	310	£31.8m
446	North East Hampshire	South East	275	£28.5m
447	North Thanet	South East	260	£27.0m
448	North West Hampshire	South East	265	£27.1m
449	Oxford East	South East	1,930	£198.6m
450	Oxford West and Abingdon	South East	665	£68.4m
451	Portsmouth North	South East	310	£31.8m
452	Portsmouth South	South East	1,200	£123.7m
453	Reading East	South East	875	£90.4m
454	Reading West	South East	325	£33.4m
455	Reigate	South East	305	£31.5m
456	Rochester and Strood	South East	370	£37.9m
457	Romsey and Southampton North	South East	600	£61.9m
458	Runnymede and Weybridge	South East	700	£72.0m
459	Sevenoaks	South East	265	£27.3m
460	Sittingbourne and Sheppey	South East	305	£31.6m
461	Slough	South East	640	£66.1m
462	South Thanet	South East	280	£28.9m
463	South West Surrey	South East	400	£41.0m
464	Southampton, Itchen	South East	655	£67.6m
465	Southampton, Test	South East	810	£83.7m
466	Spelthorne	South East	280	£28.8m
467	Surrey Heath	South East	310	£31.7m
468	Tonbridge and Malling	South East	310	£31.9m
469	Tunbridge Wells	South East	285	£29.5m
470	Wantage	South East	315	£32.5m
471	Wealden	South East	285	£29.3m
472	Winchester	South East	610	£63.1m
473	Windsor	South East	360	£37.3m
474	Witney	South East	275	£28.1m
475	Woking	South East	330	£34.1m
476	Wokingham	South East	440	£45.2m
477	Worthing West	South East	245	£25.2m
478	Wycombe	South East	445	£45.7m
479	Bath	South West	1,090	£119.3m
480	Bournemouth East	South West	435	£47.5m

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Table 26 Continued

#	Parliamentary constituency	Region	# of 1st-year students	Net impact
481	Bournemouth West	South West	855	£93.8m
482	Bridgwater and West Somerset	South West	240	£26.4m
483	Bristol East	South West	405	£44.3m
484	Bristol North West	South West	585	£64.3m
485	Bristol South	South West	335	£36.8m
486	Bristol West	South West	1,810	£198.0m
487	Camborne and Redruth	South West	285	£31.3m
488	Central Devon	South West	215	£23.4m
489	Cheltenham	South West	415	£45.6m
490	Chippenham	South West	245	£26.6m
491	Christchurch	South West	175	£19.3m
492	Devizes	South West	255	£28.1m
493	East Devon	South West	250	£27.4m
494	Exeter	South West	1,285	£140.7m
495	Filton and Bradley Stoke	South West	565	£61.7m
496	Forest of Dean	South West	250	£27.4m
497	Gloucester	South West	400	£43.9m
498	Kingswood	South West	220	£24.1m
499	Mid Dorset and North Poole	South West	215	£23.4m
500	Newton Abbot	South West	200	£21.8m
501	North Cornwall	South West	200	£21.7m
502	North Devon	South West	215	£23.5m
503	North Dorset	South West	230	£25.3m
504	North East Somerset	South West	320	£35.2m
505	North Somerset	South West	245	£26.7m
506	North Swindon	South West	290	£31.7m
507	North Wiltshire	South West	240	£26.5m
508	Plymouth, Moor View	South West	280	£30.5m
509	Plymouth, Sutton and Devonport	South West	900	£98.3m
510	Poole	South West	240	£26.2m
511	Salisbury	South West	230	£25.1m
512	Somerton and Frome	South West	245	£26.8m
513	South Dorset	South West	195	£21.6m
514	South East Cornwall	South West	200	£22.0m
515	South Swindon	South West	295	£32.1m
516	South West Devon	South West	230	£25.2m
517	South West Wiltshire	South West	220	£24.2m
518	St Austell and Newquay	South West	250	£27.4m
519	St Ives	South West	200	£21.6m
520	Stroud	South West	250	£27.5m

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

Table 26 Continued

#	Parliamentary constituency	Region	# of 1st-year students	Net impact
521	Taunton Deane	South West	295	£32.4m
522	Tewkesbury	South West	270	£29.4m
523	The Cotswolds	South West	255	£28.1m
524	Thornbury and Yate	South West	215	£23.4m
525	Tiverton and Honiton	South West	215	£23.6m
526	Torbay	South West	245	£26.7m
527	Torridge and West Devon	South West	210	£23.0m
528	Totnes	South West	200	£21.9m
529	Truro and Falmouth	South West	535	£58.5m
530	Wells	South West	280	£30.7m
531	West Dorset	South West	230	£25.0m
532	Weston-Super-Mare	South West	310	£33.7m
533	Yeovil	South West	235	£25.8m
534	Ynys Mon	Wales	230	£19.5m
535	Delyn	Wales	225	£19.2m
536	Alyn and Deeside	Wales	275	£23.3m
537	Wrexham	Wales	295	£25.0m
538	Llanelli	Wales	300	£25.2m
539	Gower	Wales	315	£26.4m
540	Swansea West	Wales	980	£82.7m
541	Swansea East	Wales	420	£35.6m
542	Aberavon	Wales	375	£31.8m
543	Cardiff Central	Wales	2,000	£168.9m
544	Cardiff North	Wales	625	£52.7m
545	Rhondda	Wales	250	£21.0m
546	Torfaen	Wales	265	£22.4m
547	Monmouth	Wales	260	£21.8m
548	Newport East	Wales	315	£26.8m
549	Newport West	Wales	360	£30.3m
550	Arfon	Wales	575	£48.6m
551	Aberconwy	Wales	185	£15.6m
552	Clwyd West	Wales	250	£21.1m
553	Vale of Clwyd	Wales	250	£21.0m
554	Dwyfor Meirionnydd	Wales	175	£14.8m
555	Clwyd South	Wales	260	£21.8m
556	Montgomeryshire	Wales	180	£15.3m
557	Ceredigion	Wales	615	£51.7m
558	Preseli Pembrokeshire	Wales	230	£19.3m
559	Carmarthen West & S. Pembrokeshire	Wales	260	£21.9m
560	Carmarthen East and Dinefwr	Wales	245	£20.8m

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Table 26 Continued

#	Parliamentary constituency	Region	# of 1st-year students	Net impact
561	Brecon and Radnorshire	Wales	195	£16.3m
562	Neath	Wales	245	£20.6m
563	Cynon Valley	Wales	250	£21.3m
564	Merthyr Tydfil and Rhymney	Wales	255	£21.6m
565	Blaenau Gwent	Wales	210	£17.9m
566	Bridgend	Wales	280	£23.8m
567	Ogmore	Wales	265	£22.5m
568	Pontypridd	Wales	450	£38.2m
569	Caerphilly	Wales	305	£25.9m
570	Islwyn	Wales	250	£21.2m
571	Vale of Glamorgan	Wales	360	£30.6m
572	Cardiff West	Wales	460	£38.9m
573	Cardiff South and Penarth	Wales	650	£55.1m
574	Aberdeen North	Scotland	2,525	£241.4m
575	Aberdeen South	Scotland	1,165	£111.2m
576	Airdrie and Shotts	Scotland	420	£40.0m
577	Angus	Scotland	385	£36.8m
578	Argyll and Bute	Scotland	265	£25.3m
579	Ayr, Carrick and Cumnock	Scotland	455	£43.5m
580	Banff and Buchan	Scotland	330	£31.6m
581	Berwickshire, Roxburgh & Selkirk	Scotland	365	£34.7m
582	Caithness, Sutherland and Easter Ross	Scotland	155	£14.9m
583	Central Ayrshire	Scotland	470	£44.8m
584	Coatbridge, Chryston and Bellshill	Scotland	505	£48.4m
585	Cumbernauld, Kilsyth & Kirkintilloch East	Scotland	535	£50.9m
586	Dumfries and Galloway	Scotland	280	£26.7m
587	Dumfriesshire, Clydesdale & Tweeddale	Scotland	245	£23.5m
588	Dundee East	Scotland	700	£66.7m
589	Dundee West	Scotland	2,180	£208.3m
590	Dunfermline and West Fife	Scotland	410	£39.3m
591	East Dunbartonshire	Scotland	595	£56.7m
592	East Kilbride, Strathaven & Lesmahagow	Scotland	580	£55.4m
593	East Lothian	Scotland	525	£50.3m
594	East Renfrewshire	Scotland	665	£63.5m
595	Edinburgh East	Scotland	2,800	£267.7m
596	Edinburgh North and Leith	Scotland	1,425	£136.2m
597	Edinburgh South	Scotland	1,920	£183.5m
598	Edinburgh South West	Scotland	1,790	£170.8m
599	Edinburgh West	Scotland	535	£51.1m
600	Falkirk	Scotland	470	£44.9m

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Table 26 Continued

#	Parliamentary constituency	Region	# of 1st-year students	Net impact
601	Glasgow Central	Scotland	3,060	£292.4m
602	Glasgow East	Scotland	600	£57.2m
603	Glasgow North	Scotland	2,365	£225.8m
604	Glasgow North East	Scotland	890	£84.8m
605	Glasgow North West	Scotland	875	£83.6m
606	Glasgow South	Scotland	675	£64.7m
607	Glasgow South West	Scotland	630	£60.0m
608	Glenrothes	Scotland	410	£39.1m
609	Gordon	Scotland	415	£39.5m
610	Inverclyde	Scotland	540	£51.5m
611	Inverness, Nairn, Badenoch & Strathspey	Scotland	315	£30.3m
612	Kilmarnock and Loudoun	Scotland	520	£49.4m
613	Kirkcaldy and Cowdenbeath	Scotland	445	£42.5m
614	Lanark and Hamilton East	Scotland	480	£46.1m
615	Linlithgow and East Falkirk	Scotland	430	£41.2m
616	Livingston	Scotland	505	£48.4m
617	Midlothian	Scotland	350	£33.3m
618	Moray	Scotland	300	£28.6m
619	Motherwell and Wishaw	Scotland	480	£45.6m
620	Na h-Eileanan An Iar	Scotland	80	£7.7m
621	North Ayrshire and Arran	Scotland	505	£48.2m
622	North East Fife	Scotland	1,615	£154.1m
623	Ochil and South Perthshire	Scotland	400	£38.1m
624	Orkney and Shetland	Scotland	90	£8.8m
625	Paisley and Renfrewshire North	Scotland	565	£54.0m
626	Paisley and Renfrewshire South	Scotland	665	£63.7m
627	Perth and North Perthshire	Scotland	425	£40.8m
628	Ross, Skye and Lochaber	Scotland	155	£15.0m
629	Rutherglen and Hamilton West	Scotland	545	£52.1m
630	Stirling	Scotland	1,185	£113.3m
631	West Aberdeenshire and Kincardine	Scotland	365	£34.7m
632	West Dunbartonshire	Scotland	515	£49.0m
633	Belfast East	Northern Ireland	485	£36.5m
634	Belfast North	Northern Ireland	600	£45.2m
635	Belfast South	Northern Ireland	2,180	£164.5m
636	Belfast West	Northern Ireland	690	£52.1m
637	East Antrim	Northern Ireland	695	£52.6m
638	East Londonderry	Northern Ireland	845	£63.8m
639	Fermanagh & South Tyrone	Northern Ireland	555	£41.9m
640	Foyle	Northern Ireland	870	£65.8m

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Table 26 Continued

#	Parliamentary constituency	Region	# of 1st-year students	Net impact
641	Lagan Valley	Northern Ireland	530	£40.2m
642	Mid Ulster	Northern Ireland	675	£50.9m
643	Newry & Armagh	Northern Ireland	670	£50.7m
644	North Antrim	Northern Ireland	550	£41.4m
645	North Down	Northern Ireland	450	£33.8m
646	South Antrim	Northern Ireland	525	£39.7m
647	South Down	Northern Ireland	645	£48.6m
648	Strangford	Northern Ireland	455	£34.2m
649	Upper Bann	Northern Ireland	670	£50.6m
650	West Tyrone	Northern Ireland	530	£40.2m

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