Middlesex University London

LE London Economics

Middlesex University Economic and Civic Impact Report

Research by London Economics
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About London Economics

London Economics is one of Europe's leading specialist economics and policy consultancies headquartered in London. We advise clients in both the public and private sectors on economic and financial analysis, policy development and evaluation, business strategy, and regulatory and competition policy.

Our consultants are highly qualified economists with experience in applying a wide variety of analytical techniques to assist our work, including cost-benefit analysis, multi-criteria analysis, policy simulation, scenario building, statistical analysis and mathematical modelling. We are also experienced in using a wide range of data collection techniques including literature reviews, survey questionnaires, interviews and focus groups.

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Foreword

Shân Wareing: Vice-Chancellor at Middlesex University

Middlesex University exists to serve our communities. We provide education and opportunities for students, enabling them to access graduate level work. We strengthen our local economy, and we work with a wide range of individuals and organisations to continuously meet the needs of North and North West London. Our positive impact on the region is significant, measurable and we are committed to increasing it.

In our early days, teachers, engineers, technicians, scientists and designers all emerged from our doors to serve North London, and we have been an intrinsic part of our civic society for nearly 150 years.

Equipping students for graduate professions and their lives after university is and will always be central to Middlesex's mission. Vital as this is, our impact extends well beyond it. We engage extensively and continuously with businesses, local authorities, charities and the professions, both as a centre of learning, knowledge creation and exchange, and also as a major local employer. In these capacities, we support the regions that host our campuses, the wider communities they serve and we work together to protect our shared environment.

From our foundation as a teaching training college for women in Tottenham, North London, we have grown and evolved, delivering education with partners in the UK and internationally, with successful campuses in Dubai and Mauritius, and a Joint Institute with Minzu University in China. However, the focus of this specific report is on how we fulfil our purpose as an anchor institution in North London and a driver of regional growth in the UK, in the 2023/24 academic year. The headlines are that we contribute nearly £1 billion to the UK economy, a return of nearly five times our operating costs; we prepare thousands of graduates for essential public services, including nurses and teachers; we support local businesses; and we support quality of life for local people in north and outer London.

We have always been committed to equity. Our mission is to ensure that education is accessible to all those who can benefit from it, regardless of their circumstances or family backgrounds. Today, 98% of Middlesex University London’s students are from underrepresented backgrounds, including ethnic minority and low-income communities. We are proud to be recognised as a leader in tackling inequalities, ranking 8th globally for Reduced Inequalities under the United Nation's Sustainable Development Goals.

By providing access to education and supporting graduates’ success, Middlesex contributes to fighting poverty, tackling inequality, and supporting better life outcomes.

Looking forwards, we are resolved to maintain and augment this legacy.
To do so, we will pursue three objectives.

- ***We will facilitate collaboration between businesses and employers, government and community leaders, and regional education providers, in addressing the opportunities and problems our region and wider-world faces.***

- ***We will deliver an integrated educational experience, which provides the qualities and skills the economy needs, and enabling our graduates to undertake high quality and meaningful careers.***

- ***We will shape and deliver economic and social change through improved access to education, driving inclusion and economic growth through innovative forms of teaching, and expanded flexible and lifelong learning opportunities for under-represented groups. We will build on our education liaison and outreach work which is already sector leading, like our Barnet Lifelong Learning Agreement partnership which guarantees interviews for local students.***

These three areas of activity are core to Middlesex's mission, and we are very proud of the achievements of our students, graduates and staff as they work to deliver on these commitments. University league tables don't always prioritise or reveal this side of University contributions and that's why I'm proud we worked with London Economics to produce this excellent report that highlights the achievements of so many of Middlesex University's people.

In partnership with local people and organisations, we not only serve our communities but draw strength from them. We work together to build a fairer, more sustainable, productive and prosperous society for all.

Professor Shân Wareing
Vice-Chancellor

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Executive Summary

London Economics were commissioned by Middlesex University to analyse the economic and social impact of the University's activities, focusing on the 2023-24 academic year. Specifically, the analysis considers the impact associated with the University's research and knowledge exchange activities, teaching and learning activities, educational exports, and operating and capital expenditures.

The aggregate economic impact of Middlesex University

The total economic impact on the UK economy associated with Middlesex University's activities in 2023-24 was estimated at approximately **£994.3 million** (see Table 1).[1] In terms of the components of this impact, the value of the University's **teaching and learning activities** accounted for **£394.7 million** (**40%** of the total), while the impact associated with the University's **research and knowledge exchange activities** stood at **£54.1 million** (**5%**). The impact generated by the **operating and capital expenditures of the University** was estimated to be **£264.7 million** (**27%**), and the impact of the University's **international students** accounted for **£280.9 million** (**28%**).

The total economic impact associated with Middlesex University's activities in 2023-24 stood at £994.3 million.

Table 1 Total economic impact of Middlesex University's activities in the UK in 2023-24 (£m and % of total)

Type of impact		£m	%
	**Impact of research and knowledge exchange**	**£54.1m**	**5%**
	Research activities	£37.5m	4%
	Knowledge exchange activities	£16.7m	2%
	**Impact of teaching and learning**	**£394.7m**	**40%**
	Students	£189.7m	19%
	Exchequer	£204.9m	21%
	**Impact of international students**	**£280.9m**	**28%**
	Tuition fee income	£119.9m	12%
	Non-tuition fee income	£160.9m	16%
	**Impact of the University's spending**	**£264.7m**	**27%**
	Direct impact	£132.1m	13%
	Indirect and induced impact	£132.6m	13%
	Total economic impact	**£994.3m**	**100%**

Note: All estimates are presented in 2023-24 prices, rounded to the nearest £0.1m, and may not add up precisely to the totals indicated. ***Source: London Economics' analysis***

[1] All estimates here are presented in terms of economic output (equivalent to income/turnover). The impact of the University's research and knowledge exchange activities, educational exports and institutional expenditures can also be converted into gross value added (GVA) and full-time (FTE) employment, and these additional findings are provided within the relevant sections throughout this report.

Compared to Middlesex University's relevant operating costs of approximately **£208.6 million** in 2023-24,[2] the total impact of the University's activities on the UK economy was estimated at **£994.3 million**, which corresponds to a **benefit-to-cost ratio of approximately 4.8:1**. In addition to assessing the University's impact on the UK economy as a whole, it is also possible to estimate the economic impact of a number of strands of the University's activities on **Outer London - West and North West**, and on **London** as a whole. Specifically, we estimated the direct, indirect and induced economic impacts of the University's research and knowledge exchange activities, the spending of the University's international students, and the University's institutional expenditures.[3] Approximately **£573.9 million** (**58%**) of Middlesex University's total impact can therefore be disaggregated geographically, of which approximately **£357.0 million** (**62%**) occurred in **Outer London - West and North West**, and **£126.1 million** (**22%**) was generated in the rest of **London**.

The analysis indicates that the University's activities supported a total of **3,180** FTE jobs across the UK economy in 2023-24, of which **2,215** were located in **Outer London - West and North West**, and **530** were supported throughout the rest of **London**.

The impact of Middlesex University's research and knowledge exchange activities

To estimate the economic impact associated with the University's **research activity**, we used information on the total research-related income received by the University from Research England and other sources (e.g. UK Research Councils, central and local government, charities etc.) in 2023-24, which stood at **£11.2 million**. The scale of this research income placed the University **18th** in London (out of 43 HEPs in London which received research income in 2023-24) and **10th** out of the 17 University Alliance[4] members.[5]

The estimated impact of Middlesex University's research and knowledge exchange activities in 2023-24 stood at £54.1 million.

We assessed the direct, indirect, and induced economic impacts associated with the University's research activity, using economic multipliers derived from a (multi-regional) Input-Output model. After accounting for **£9.7 million** of Exchequer costs and adjusting for double-counting with other strands, the **net direct, indirect, and induced impact of the University's research** was estimated at **£11.7 million**.

In addition, existing academic literature[6] finds strong evidence of **productivity spillovers** from public investment in university research. Applying estimates from the academic literature, our analysis estimates an average spillover multiplier of **2.41**, suggesting that **every £1 invested**

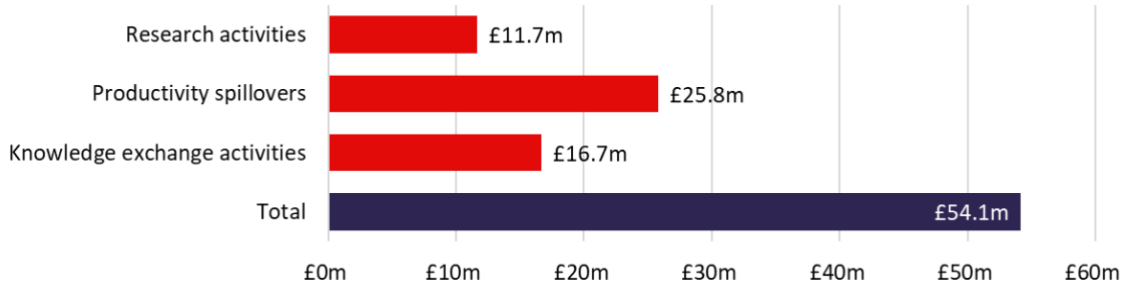
[2] This relates to the University's total operating expenditure, excluding capital expenditure, depreciation and amortisation.
[3] It is not possible to attribute the impact of the other strands of economic impact to any specific UK region (i.e. there is no regional breakdown available for the estimated productivity spillovers associated with the University's research, or for the impact of the University's teaching and learning activities).
[4] A list of University Alliance members can be found on: https://www.unialliance.ac.uk/about/member/
[5] Data for Middlesex University is collected from the University's financial statement (see Middlesex University (2024). Data for all other universities is collected from HESA (2025c).
[6] See Haskel and Wallis (2010) and Haskel et al. (2014a).

in Middlesex University's research activities generates an additional annual economic output of £2.41 across the UK economy through positive productivity spillovers to the UK private sector, resulting in total estimated spillovers of **£25.8 million**. This results in a total economic impact associated with the University's research activities of **£37.5 million** in 2023-24.

In addition to Middlesex University's research, the analysis estimated the direct, indirect, and induced impact associated with the University's **knowledge exchange activities**. This includes **contract research** and **consultancy services** provided by the University; **business and community courses**; and **facilities and equipment hire**. The analysis estimates that these knowledge exchange activities generated a total of **£16.7 million** of impact across the UK economy in 2023-24.

The combined economic impact associated with Middlesex University's research and knowledge exchange activities in 2023-24 was therefore estimated to be **£54.1 million** (see Figure 1). In terms of full-time equivalent (FTE) employment, the analysis estimates that the University's research and knowledge exchange activities supported approximately **220** FTE jobs, of which **155** are located in **Outer London - West and North West**, with a total of **190** jobs supported throughout **London** as a whole.

Figure 1 Total economic impact of Middlesex University's research and knowledge exchange activities in 2023-24, £m



Note: All values are presented in 2023-24 prices, rounded to the nearest £0.1 million, and may not add up precisely to the totals indicated.
Source: London Economics' analysis

The impact of Middlesex University's teaching and learning activities

The analysis of the impact of Middlesex' University's teaching and learning activities estimates the **enhanced employment and earnings benefits to graduates** and the **additional taxation receipts to the public purse** associated with higher education qualification attainment at the University.[7] The analysis is tailored to the characteristics of

[7] The estimation of the net graduate premiums and net Exchequer benefits is based on a detailed econometric analysis of the Labour Force Survey. The analysis considers the impact of higher education qualification attainment on earnings and employment outcomes; however, as no information is specifically available on the particular higher education institution attended, the analysis is *not* specific to Middlesex University alumni. Rather, the findings from the analysis are adjusted to

the **4,750** UK domiciled students who started a higher education qualification at the University in the 2023-24 academic year. Of these students, **40%** (**1,875**) came to the University from **North** or **West London** and **72%** (**3,400**) came from **London** as a whole.

Incorporating both the expected costs associated with qualification attainment and the labour market benefits expected to be accrued by students/graduates over their working lives, the analysis estimates that the **net graduate premium** achieved by representative UK domiciled students in the 2023-24 cohort completing a **full-time first degree** (with a Level 3[8] qualification as their highest level of prior attainment) stands at approximately **£64,000** (in 2023-24 money terms). Separately, taking account of the benefits and costs to the public purse, the corresponding **net Exchequer benefit** associated with these students was estimated at **£69,000**.

The total economic impact of teaching and learning generated by the 2023-24 cohort of Middlesex University students stood at £394.7 million.

The net graduate premiums and net Exchequer benefits per student were combined with information on the number of UK domiciled students starting qualifications at Middlesex University in the 2023-24 academic year, as well as expected completion rates. The resulting aggregate economic impact generated by the University's teaching and learning activities associated with the 2023-24 cohort stood at approximately **£394.7 million** (see Table 2). This total is split roughly evenly between the Exchequer and students/graduates: **£204.9 million** (**52%**) of the total economic benefit is accrued by the Exchequer, while the remaining **£189.7 million** (**48%**) is accrued by students/graduates undertaking qualifications at Middlesex University.

Table 2 Impact of Middlesex University's teaching and learning activities associated with the 2023-24 cohort (£m), by type of impact and level of study

Study level	Students	Exchequer	Total
Undergraduate	£158.0m	£167.1m	£325.1m
Postgraduate	£31.8m	£37.8m	£69.6m
Total	**£189.7m**	**£204.9m**	**£394.7m**

Note: All estimates are presented in 2023-24 prices, discounted to reflect net present values, rounded to the nearest £0.1m, and may not add up precisely to the totals indicated.
Source: London Economics' analysis

The impact of Middlesex University's educational exports

With Middlesex University attracting a large number of international students each year, the University's higher education offer represents a tradeable activity with imports and exports like any other tradeable sector. The economic impact of the University's contribution to educational exports is based on the **direct** injection of **tuition fee** and **non-tuition fee income** from its

reflect the characteristics of the 2023-24 cohort of Middlesex University students to the greatest extent possible (e.g. in terms of mode of study, level of study, subject mix, domicile, gender, average age at enrolment, or duration of qualification).
[8] Based on the Regulated Qualifications Framework (RQF) used in England, Wales, and Northern Ireland.

international students. As with the University's research and knowledge exchange activities, this income generates additional **indirect and induced impacts** throughout the UK economy, through supply chain and wage income effects. The analysis focuses on the cohort of **2,935** non-UK domiciled students who started qualifications at Middlesex University in the 2023-24 academic year. Of these students, **120** (**4%**) were EU domiciled, and **2,810** (**96%**) were from non-EU jurisdictions.

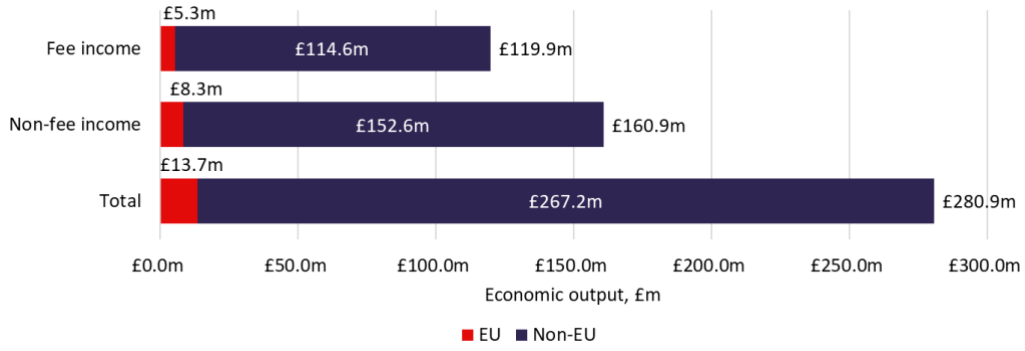
Combining the estimated tuition fee income (net of Middlesex University's cost of fee waivers and bursaries for international students) and non-tuition fee income associated with international students in the 2023-24 cohort, the **total export income** (**i.e. direct impact**) generated by this cohort stood at **£144.2 million**. Around **41%** of this income (**£59.8 million**) was generated from international students' (net) tuition fee expenditure accrued by Middlesex University, while the remaining **59%** (**£84.4 million**) was generated from these students' non-tuition fee expenditure (e.g. including costs related to accommodation, subsistence, course-related purchases, and travel).

The impact of the export income generated by the 2023-24 Middlesex University cohort of international students stood at £280.9 million.

The total (direct, indirect, and induced) economic impact associated with this income was again estimated using relevant economic multipliers, identifying the extent to which the expenditures of international students generate additional activity throughout the UK economy. We thus estimate that the **total economic impact** on the UK generated by the (net) fee income and non-fee income associated with international students in the 2023-24 Middlesex University cohort amounts to **£280.9 million**. Of this total, **£119.9 million** was associated with international students' (net) **tuition fees**, and **£160.9 million** was associated with their **non-fee expenditures** over the duration of their studies at Middlesex University (see Figure 2).

In employment terms, these educational exports supported an estimated **1,725 full-time equivalent jobs** across the UK as a whole, including **1,170** supported in **Outer London - West and North West** and a further **310** jobs supported in the rest of **Greater London**.

Figure 2 Impact of Middlesex University's educational exports associated with international students in the 2023-24 cohort (£m), by domicile and type of income



Note: All estimates are presented in 2023-24 prices, discounted to reflect net present values, rounded to the nearest £0.1m, and may not add up precisely to the totals indicated.
Source: London Economics' analysis

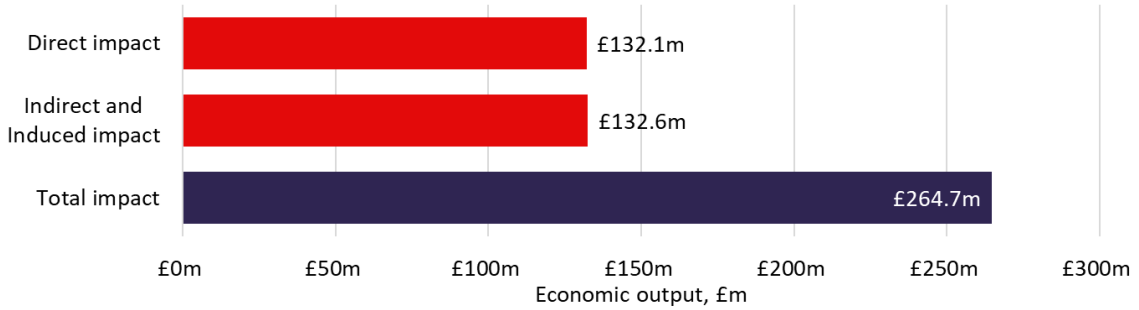
The impact of Middlesex University's expenditure

The impact of the University's expenditure on the UK economy in 2023-24 stood at £264.7 million.

Middlesex University's significant physical footprint supports jobs and promotes economic growth throughout London and the wider UK economy. This is captured by the **direct, indirect, and induced impact** associated with the University's expenditures. The **direct impact** of the University's physical footprint was based on its operating and capital expenditures. In the 2023-24 academic year, Middlesex University incurred a total of **£215.5 million** of expenditure (including **£208.6 million** of operating expenditure[9] and **£6.9 million** of capital expenditure). From this total, we deducted **£83.4 million** to avoid double-counting across other areas of economic impact, which resulted in a net direct impact of **£132.1 million**.

Again, the direct increase in economic activity resulting from the University's expenditures generates additional rounds of spending throughout the economy (through the University's supply chains and the spending of its staff). Applying relevant economic multipliers, the **total direct, indirect, and induced impact** associated with the University's expenditures in 2023-24 was estimated at **£264.7 million** (see Figure 3). The majority of this impact (**£161.8 million, 61%**) occurred in **Outer London - West and North West**, and a total of **£220.2 million** (**83%**) was accrued throughout London **as a whole**.

Figure 3 Impact associated with Middlesex University's expenditure in the 2023-24 academic year (£m)



Note: All estimates are presented in 2023-24 prices, rounded to the nearest £0.1m, and may not add up precisely to the totals indicated.
Source: London Economics' analysis

In terms of the number of FTE jobs supported, the University's expenditures[10] supported a total of **1,240** FTE jobs across the UK economy in the 2023-24 academic year, of which **890** were based in **Outer London - West and North West.**

[9] The total operational expenditure (excluding capital expenditure) of Middlesex University in 2023-24 stood at **£218.0 million**. From this, for the purpose of the analysis, we excluded **£9.4 million** in depreciation costs and pension provision movements, as it is assumed that these costs are not relevant from a procurement perspective (i.e. these costs are not accounted for as income by other organisations).
[10] Again, after adjusting for double-counting with the other strands of economic impact considered here.

The impact of Middlesex University's civic engagement activities

The report concludes by providing data, insights and examples of Middlesex University's **civic engagement activities**, considered through the lens of the seven domains of civic engagement outlined in the **Civic Impact Framework** (Civic University Network, 2024). This section contains a range of internal and published data, and qualitative examples, of the University's civic engagement activities. The seven domains discussed are as follows:

- Social impact;
- Environment, climate and biodiversity;
- Health and wellbeing;
- Cultural contribution;
- Economic impact;
- Estates, facilities and placemaking; and
- Institutional strategy and leadership.

Middlesex University demonstrates a strong civic commitment across these seven domains, with key contributions in social inclusion, sustainability, health, culture, economic development, community facilities, and leadership. Some examples of these contributions in relation to each domain are provided below.

Social Impact: Research from the University's Access and Participation Plan shows that 98% of its students belong to groups that typically face extra challenges in accessing higher education. Middlesex University ranks 8th globally among universities for Reduced Inequalities (relating to United Nations Sustainable Development Goal 10)[11] and supports social mobility through its 1,445 apprenticeships, 38% of which are first-generation learners.

Environmental Impact: Sustainability is embedded in the University's teaching and campus operations. Middlesex holds EcoCampus Platinum/ISO 14001 accreditation and aims for Net Zero by 2040. Since 2018/19, the University's carbon emissions have fallen by 28%,[12] supported by green infrastructure and renewable energy initiatives.

Health and Wellbeing Impact: Middlesex trains around 1,750 nurses and midwives annually and delivers hundreds of healthcare apprenticeships. In 2023–24, students contributed over 1.1 million hours to public sector placements and apprenticeships,[13] strengthening NHS capacity and local resilience. The University also leads police education reform through the Police Education Consortium, raising professional standards and community trust.

Cultural Contribution: Middlesex University undertakes local events such as Holocaust Memorial Day, Diwali celebrations, and the Windrush Stories Exhibition. Initiatives like *Changing the Culture* tackle social issues, empowering students to create campaigns against misogyny and harassment.

[11] https://www.timeshighereducation.com/impactrankings
[12] Based on HESA (2025e).
[13] Based on internal Middlesex University data.

Economic Impact: The University supports 2,215 FTE jobs locally (i.e. within Outer London – West and North West) and connects students with employers through partnerships, apprenticeships, and events like Gradstock. Its Unitemps agency has filled 22,000 roles since 2017, and Middlesex ranks first in the UK for employability.[14]

Estates and Facilities Impact: The University's Hendon campus serves as a community hub, offering warm spaces, sports facilities, and events for older residents, including Silver Sunday — the largest of its kind nationally.

Leadership Impact: Middlesex embeds civic responsibility in its strategy through a dedicated Business and Civic Engagement directorate, fostering collaboration with employers, education providers, and civic organisations to deliver lifelong learning and regional economic renewal.

[14] https://universitycompare.com/rankings/career-opportunities

Introduction 1

1 Introduction

London Economics were commissioned to assess the **economic and civic impact of Middlesex University on the United Kingdom**, focusing on the 2023-24 academic year. The University contributes to the UK's national prosperity through a range of activities and channels, and the economic impact analysis is split into:

- The impact of Middlesex University's **research and knowledge exchange activities**;
- The economic contribution of the University's provision of **teaching and learning**;
- The impact of the University's contribution to **educational exports**; and
- The impact of the University's **operating and capital expenditures**.

Reflecting the channels of economic impact outlined above, the remainder of this report is structured as follows.

Section 2 focuses on the impact of Middlesex University's **research and knowledge exchange activities**. To estimate the impact of the research undertaken at the University, we combine information on the research-related income accrued by the University in 2023-24 with estimates from the wider economic literature on the extent to which public investment in research activity results in additional private sector productivity (i.e. positive 'productivity spillovers'). In addition, the analysis estimates the direct, indirect, and induced impact associated with the University's research and knowledge exchange activities, including contract research provided by the University; consultancy services; business and community courses; and facilities and equipment hire.

In **Section 3**, we assess the improved labour market earnings and employment outcomes associated with higher education attainment at Middlesex University. Through an assessment of the expected lifetime benefits and costs associated with educational attainment, we estimate the **net economic benefits of the University's teaching and learning activity to its graduates and the public purse** (through enhanced taxation receipts), focusing on the cohort of **4,750** UK domiciled students who started higher education qualifications at the University in the 2023-24 academic year.

In addition to these UK domiciled students, there were a further **2,935** international students commencing their studies at Middlesex University in 2023-24. These students contribute to the value of UK educational exports through their tuition fees as well as their non-fee (i.e. living cost) expenditures during their studies. **Section 4** assesses the **direct, indirect, and induced economic impacts generated by this international fee and non-fee income** associated with the University's 2023-24 cohort of non-UK domiciled students.

Given that the University is a large employer and supports its wide-ranging activities through significant expenditures, the University's substantial physical footprint supports jobs and promotes economic growth throughout North West London and the wider UK economy. **Section 5** presents our estimates of the **direct, indirect, and induced economic impacts associated with the operating and capital expenditures incurred by the University** in the 2023-24 academic year.

Section 6 summarises our main findings with regards to economic impact and presents the aggregate economic impact of the University's activities in the 2023-24 academic year.

Finally, **Section 7** provides insights on Middlesex University's **civic engagement activities**, considered through the lens of the seven domains of civic engagement outlined in the **Civic Impact Framework** (Civic University Network, 2024).

The impact of Middlesex University's research and knowledge exchange activities

2

2 The impact of Middlesex University's research and knowledge exchange activities

This section outlines our estimates of the economic impact of Middlesex University's **research and knowledge exchange activities**. To achieve this, we first consider the impact of the University's expenditure on research and knowledge exchange activities, in terms of the direct, indirect and induced effects of that spending. Secondly, we assess the wider productivity spillovers that are generated through the University's research activities.

2.1 Economic impact of Middlesex University's research

In this section, we outline our analysis of the **economic impact of Middlesex University's research activities**. Specifically, we estimate both the **direct, indirect, and induced effects** of the University's research (captured by the research income accrued by Middlesex University and the subsequent rounds of spending this income generates across the economy), as well as the private sector **productivity spillover effects** from the University's research activities.

2.1.1 Middlesex University's research income in 2023-24

To estimate the **direct impact** generated by Middlesex University's research activities, we used information from Middlesex University's financial statement on the total research-related income accrued by the University in the 2023-24 academic year. This includes:

- Income from research grants and contracts provided by:
  - **UK sources**, including the UK Research Councils; UK-based charities; central government bodies, local authorities, and health and hospital authorities; industry and commerce; and other UK sources.
  - **EU sources**, including government bodies, charities, industry and commerce, and other sources.
  - **Non-EU sources**, including charities, industry and commerce, and other sources.
- **Recurrent research funding** allocated to the University by Research England.

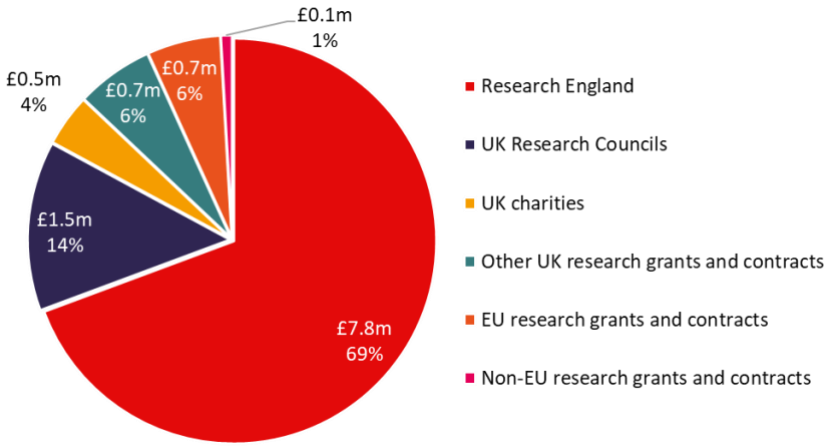
Aggregating across these sources, the total research-related income accrued by Middlesex University in the 2023-24 academic year stood at **£11.2 million** (see Figure 4).[15] Approximately **£7.8 million** (**69%**) of this income was received through recurrent research grant funding from **Research England**, with an additional **£1.5 million** (**14%**) received from the **UK Research Councils**, **£0.5 million** (**4%**) from **UK charities**, and **£0.7 million** (**6%**) from **other UK sources**.[16] In addition, in terms of funding from international sources, **£0.7 million** (**6%**) of the University's research-related income was derived from **EU research grants and contracts**, and the remaining **£0.1 million** (**1%**) was from **non-EU sources**.

[15] Note that, for the purpose of the analysis, we then adjust this income (i.e. the estimated direct impact of research) to avoid double-counting with knowledge exchange activities, and to deduct the public costs of these research activities (see Sections 2.1.2 and 2.1.3).

[16] This income from 'other UK sources' includes **£0.4 million** from UK central government bodies, local authorities, and health and hospital authorities; **£0.2 million** from UK industry, commerce and public corporations; and **£0.1 million** from other sources.

A research income of **£11.2 million** places the University **18th** in London (out of 43 HEPs in London which received research income in 2023-24) and **10th** out of the 17 University Alliance[17] members.[18]

Figure 4 Research income received by Middlesex University in 2023-24, £m by source



Note: All values are presented in 2023-24 prices and rounded to the nearest £0.1 million.
Source: London Economics' analysis based on Middlesex University (2024).

2.1.2 Adjustment for double-counting with knowledge exchange activities

The **£11.2 million** of research income received by Middlesex University in 2023-24 includes the income generated by the University from its **collaborative research** and **contract research**.[19] However, the income from these two activities is *also* recorded separately within HESA's Higher Education Business and Community Interaction Survey (HE-BCI) data,[20] which we use to separately estimate the economic impact associated with the University's knowledge exchange activities (described in further detail in Section 2.2).

The income from these sources is included in *both* the data on the University's research-related income and the HE-BCI data on its knowledge exchange activities. To avoid any double-counting between the estimated impact of the University's research activity (described in this section) and knowledge exchange activities (described in Section 2.2), we made the following adjustments:

- In terms of the University's income from **collaborative research**, we implicitly account for (publicly funded and cash income) from collaborative research within the **impact of the University's research**. We therefore do *not* take collaborative research income into account in the analysis of knowledge exchange activities. This income represents

[17] A list of University Alliance members can be found on: https://www.unialliance.ac.uk/about/member/.
[18] Data for Middlesex University is collected from the University's financial statement (see Middlesex University (2024). Data for all other universities is collected from HESA (2025c).
[19] Collaborative research involving public funding includes cash or in-kind contributions to research projects with material contributions from at least one external non-academic collaborator. Contract research meets specific research needs of external partners, excluding basic research council grants. The two activities are mutually exclusive.
[20] See Higher Education Statistics Agency (2025a).

£0.4 million out of the **£11.2 million** of total research income received by the University in 2023-24.[21]

- In terms of **contract research**, we account for this activity within the impact of Middlesex University's knowledge exchange activities (see Section 2.2). Therefore, to avoid double-counting, we deduct **£0.5 million** of contract research income from the above total research-related income. We thus estimated that the *gross* **direct impact** (before deducting public costs) associated with the University's research activity in 2023-24 stands at **£10.7 million**.

A schematic overview of the methodological approach adopted, including these adjustments for double-counting, is provided in Annex A2.2.1.

2.1.3 Total direct, indirect, and induced impact of Middlesex University's research activity

The analysis then assesses the total **direct, indirect, and induced economic impacts** on the UK economy associated with Middlesex University's research activity in 2023-24. While the direct impact reflects the research income that the University received in the 2023-24 academic year,[22] the indirect and induced effects reflect the chain reaction of subsequent rounds of spending throughout the economy, often referred to as a 'ripple effect'. These are defined as follows:

- **Indirect effect ('supply chain impacts')**: Middlesex University spends its research income on purchases of goods and services from suppliers, who in turn spend this revenue purchasing inputs to meet the University's demand. This results in a chain reaction of subsequent rounds of spending across industries, often referred to as a 'ripple effect'.
- **Induced effect ('wage spending impacts')**: The University's employees (supported by the University's research income) use their wages to purchase consumer goods and services within the economy. 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 further 'ripple effect' throughout the economy as a whole.

The total of the direct, indirect, and induced effects constitutes the *gross* economic impact of Middlesex University's research activities. An analysis of the *net* economic impact ideally needs to account for two additional factors that potentially reduce the size of any of the above effects:

- **Leakage** into other geographical areas, by taking account of how much of the additional economic activity actually occurs in the area of consideration (i.e. within the UK).

[21] The **£0.4 million** in collaborative research funding is made up entirely of public funding. Note that any income in terms of in-kind contributions to collaborative research (**£0.3 million**) is excluded here, since these contributions do not represent a cash transaction for which we can robustly apply economic multipliers.
[22] Net of contract research income, as discussed above.

- **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.[23]

The direct, indirect, and induced impacts are measured in terms of monetary economic output,[24] gross value added (GVA),[25] and full-time equivalent (FTE) employment supported.[26] In addition to measuring these impacts on the UK economy as a whole, the analysis is broken down by geographic region[27] and sector.

These impacts of Middlesex University's research activities were estimated using **economic multipliers** derived from Input-Output tables,[28] 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. In other words, these tables capture the degree to which different sectors within the UK economy are connected, i.e. the extent to which changes in the demand for the output of any one sector impact all other sectors of the economy. To be able to achieve a breakdown of the analysis by region, we developed a **multi-regional Input-Output model**, combining UK-level Input-Output tables (published by the Office for National Statistics[29]) with a range of regional-level data to achieve a granular breakdown by sector *and* region.[30]

To estimate the total direct, indirect, and induced impact, we apply the relevant average economic multipliers[31] derived from the Input-Output analysis associated with organisations in the **government, health, and education sector in Outer London – West and North West**.[32] These multipliers (for the impact on Outer London – West and North West, all of London, and the UK economy as a whole) are presented in Table 3.

Based on these estimates, in terms of economic output, we assume that every **£1 million** of research income accrued by Middlesex University generates a *total* of **£2 million** of impact throughout the UK economy on average, of which **£1.22 million** is accrued in Outer London –

[23] It is important to note that, while the analysis (wherever possible) 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 research income received by the University might otherwise have been used for other purposes by the organisations from which the income is received). Hence, our analysis effectively estimates the direct, indirect, and induced impacts associated with Middlesex University's research activities in *gross* terms.
[24] In this analysis, economic output is equivalent to income or expenditure (e.g. the direct research income that Middlesex University accrued in 2023-24).
[25] Gross value added is used in national accounting to measure the economic contribution of different industries or sectors ,and is defined as economic output minus intermediate consumption (i.e. minus the cost of goods and services used in the production process).
[26] Full-time equivalent jobs represent the total number of full-time jobs supported, accounting for part-time positions on an equivalent full-time basis.
[27] Specifically, the underlying analysis is broken down into the UK's 41 International Territorial Level 2 (ITL2) regions (for more information, see Office for National Statistics (2025a)). Within London overall, the analysis thus distinguishes between Inner London – East; Inner London – West; Outer London – East and North East; Outer London – South; and Outer London – West and North West (where the University is located).
[28] Input-Output tables quantify the interdependencies between different sectors and regions of an economy by detailing the origin and destination of resource flows between each sector and region.
[29] See Office for National Statistics (2023d).
[30] See Annex A2.1 for more details on the Input-Output analysis.
[31] Specifically, the analysis makes use of *Type II* multipliers, defined as [Direct + indirect + induced impact]/[Direct impact].
[32] i.e. we assume that the expenditure patterns of Middlesex University are the same as for other institutions operating in Outer London – West and North West's government, health, and education sector.

West and North West (and **£1.67 million** is generated throughout the whole of London). In terms of employment, we assume that, for every **1,000** FTE staff employed directly by Middlesex University, a total of **1,570** staff are supported throughout the UK, of which **1,130** are supported in Outer London – West and North West (and a total of **1,370** are supported throughout London as a whole).

Table 3 Economic multipliers associated with Middlesex University's research activities

Location of impact	Output	GVA	FTE employment
Outer London - West and North West	1.22	1.19	1.13
London	1.67	1.60	1.37
Total UK	2.00	1.86	1.57

Note: All multipliers constitute Type II multipliers, defined as [Direct + indirect + induced impact]/[Direct impact].
Source: London Economics' analysis

In addition to the direct, indirect, and induced economic impacts associated with Middlesex University's research activity, a similar methodology is applied to estimate the direct, indirect, and induced economic effects associated with the University's knowledge exchange activities (see Section 2.2), educational exports (see Section 4), and operational and capital expenditures (see Section 5).

Adjusting for public costs

To arrive at the ***net* total impact** of the University's research activities on the UK economy (**net of public costs**), we deducted the **costs to the public purse** of funding these activities. These public costs include the funding provided to the University by the UK Research Councils (**£1.5 million**), recurrent research grants provided by Research England (**£7.8 million**), and other research income from UK central government bodies, local authorities, and health and hospital authorities (**£0.4 million**).[33] These total public purse costs (**£9.7 million**) are deducted from the total direct, indirect, and induced impacts of research activity (estimated using the multipliers outlined above). As a result, the **direct, indirect, and induced impact** (net of public costs) associated with Middlesex University's research activity in 2023-24 was estimated at **£11.7 million**, with a (net) direct impact of **£5.8 million** (see Figure 5).

In terms of GVA and FTE employment, the total direct, indirect, and induced impact associated with the University's research was estimated at **£6.6 million** and **90** FTE jobs, respectively.[34]

[33] This is included within the **£0.7 million** of income from 'other UK research grants and contracts' in Figure 4 (which also includes **£0.2 million** of income from UK industry and **£0.1 million** from other UK sources).
[34] To estimate the *direct* GVA and employment supported by the University's research income, we multiplied this income by the average ratio of GVA to output and FTE employees to output within Outer London – West and North West's government, health, and education sector (based on the above-described multi-regional Input-Output model). Again, this approach assumes that the expenditure patterns of Middlesex University are the same as for other institutions operating in Outer London – West and North West's government, health, and education sector. To estimate the *total direct, indirect, and induced* impacts in GVA and employment terms, we then applied the above-described economic multipliers (see Table 3).

Figure 5 Net direct, indirect, and induced impacts associated with Middlesex University's research income in 2023-24, £m

Note: Estimates are presented in 2023-24 prices, rounded to the nearest £0.1 million, and may not add up precisely to the totals indicated.

Source: London Economics' analysis

Case Study – Next Gen STEM

Young people, especially those from underrepresented backgrounds, can see science and technology subjects as inaccessible. Middlesex University works to change this perception with year-round initiatives that reach thousands of young people, demonstrating that science is relevant and welcoming to all.

Staff and students stage major outreach events including an **annual STEM Festival** on campus and a large Middlesex presence at New Scientist Live at the ExCeL Centre. Middlesex's exhibits - featuring a VR motion platform 'rollercoaster' and challenges to programme robots and build molecules - are crowd favourites. Beyond public engagement, the rollercoaster has been used to research into stress and heart health and adapted in collaboration with the Royal Aeronautical Society into a flight simulator touring Special Educational Needs and Disability schools.

School engagement takes many forms. The Science and Technology Facility's Council-funded project, **Space Maths Odyssey**, involved 1,000 Barnet secondary students in co-designing a maths puzzle video game, with feedback showing students were more likely to consider a science career after participating. **'Practical Potions'** events at Middlesex gave primary pupils an introduction to chemistry while the University runs free hands-on robotics workshops for local schools.

Widening participation extends to career pathways too. **SMASHfestUK** is an immersive science and creative arts experience co-founded by a Middlesex lecturer to show young people from underrepresented groups that science, tech and design can be for them. It has now launched a fully paid Graduate Development Programme to support career progression in STEM.

Research into inclusion informs practice across Middlesex. The **London Digital Twin Research Centre** runs a British Council-supported fellowship programme for international early career scholars in fields from AI to quantum computing, designed to widen participation for underrepresented researchers. The centre also offers master's scholarships and fellowships for women in STEM, with participants praising the University's strong support for mothers with young children.

This commitment to outreach and inclusion has led to achievements across the University. The only 2025 UK winner of a **Distinguished Female Chemist award** from the **International Union of Pure and Applied Chemistry** is Middlesex Emeritus Professor Hemda Garelick, whose research includes investigations into water pollution and who continues to champion initiatives to support women chemists. Recent Architectural Technology graduate Kristin Gray also won at the **industry's AT awards** for a skyscraper design, meeting the highest sustainability and accessibility standards. Lastly, current students drive innovation through projects backed by the social enterprise-focused **Middlesex Enactus Society**, developing technology to support neurodivergent students and reimagine car parking.

2.1.4 Productivity spillovers to the private sector

In addition to the direct, indirect, and induced impact of research, the wider academic literature indicates that **investments in research & development (R&D) and other intangible assets may induce positive externalities**. Economists refer to the term 'externality' to describe situations in which the activities of one 'agent' in the market induce (positive or negative) external effects on other agents in that market (which are not reflected in the price mechanism). In the context of research activities, existing academic literature assesses the existence and size of **positive productivity and knowledge spillovers**, where knowledge generated through the R&D activities of one agent enhances the productivity of other organisations.

There are many ways in which research generated at universities can induce such positive spillover effects to the private sector.[35] For example, spillovers are enabled through direct R&D collaborations between universities and firms (such as Knowledge Transfer Partnerships), the publication and dissemination of research findings, or through university graduates entering the labour market and passing on their knowledge to their employers.

In order to estimate the productivity spillovers associated with Middlesex University's research activities, we apply productivity spillover multipliers from the existing literature to the different types of research-related income received by the University in 2023-24 (again see Figure 4). Specifically, we assign a multiplier of **12.7**[36] to the University's research funding from **UK Research Councils and UK charities**[37] (amounting to **£2.0 million**), and a multiplier of **0.2**[38] to **all other research funding** received by the University in 2023-24 (amounting to **£9.2 million**).[39] A more detailed summary of the key relevant literature on this topic is presented in Annex A2.2.2.

Using this approach, we infer a weighted average spillover multiplier associated with Middlesex University's research activities in 2023-24 of approximately **2.41** – i.e. **every £1 invested in the University's research activities generates additional annual economic output of £2.41 across the UK economy**. This captures the impact of the research undertaken by the University in 2023-24 within that same academic year, but excludes any additional (and likely substantial) impacts in subsequent years.[40] Applying this weighted average multiplier to the

[35] Note that there are also clearly significant economic and social spillovers to the *public* sector associated with university research. However, despite their obvious importance, these have been much more difficult to estimate robustly, and are not included in this analysis.
[36] This is based on a key study by Haskel and Wallis (2010). For more detail, see Annex A2.2.2.
[37] Where the vast majority of funding provided by UK charities relates to projects commissioned through an open competitive process.
[38] This is based on a study by Haskel et al. (2014a). Again, see Annex A2.2.2 for more detail.
[39] In terms of the large difference in magnitude between these multipliers, explaining the size of the 12.7 multiplier in particular, Haskel and Wallis (2010) argue that they would expect the productivity spillovers from Research Council funding to be large, 'given that the support provided by Research Councils is freely available and likely to be basic science'. To the best knowledge of the authors, there exists no further and recent empirical evidence to support this. As a result, we apply the separate multipliers to the different income strands.
[40] Specifically, the 12.7 multiplier (based on the analysis by Haskel and Wallis (2010)) as well as the 0.2 multiplier (from Haskel et al. (2014a)) constitute the impact of research investment on *annual* UK economic output within a given year (and, in our analysis here, we use these multipliers to estimate the level of private sector spillovers occurring in 2023-24 associated with research undertaken by Middlesex University in 2023-24). However, we do *not* account for any subsequent productivity spillovers from this research that might occur in subsequent years (i.e. 2023-24 and beyond). For example, as outlined by Haskel et al. (2014a), based on their analysis, 'a one-off increase in public spending [on R&D] generates an infinitely-lived rise in the level of knowledge capital and so an infinitely-lived higher output' (see Haskel et al. (2014a), p. 48) –

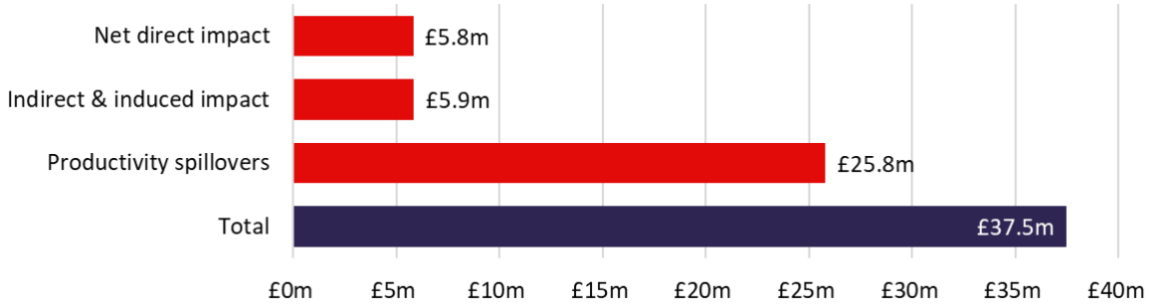
direct impact of research (i.e. **£10.7 million**, excluding contract research),[41] we estimate that the research conducted by Middlesex University in 2023-24 resulted in **total market sector productivity spillovers** of **£25.8 million**.

2.1.5 Aggregate impact of Middlesex University's research

Combining the **direct, indirect, and induced economic impact** of Middlesex University's research (**£11.7 million**) with the **productivity spillovers** associated with this research (**£25.8 million**), we estimate that the total economic impact associated with the University's research activities in 2023-24 stood at approximately **£37.5 million** (see Figure 6).

Comparing this impact to the **£9.7 million** of publicly funded research income received by the University in 2023-24, this suggests that **for every £1 million of publicly funded research income, Middlesex University's research activities generate an estimated total of £3.85 million in economic impact across the UK.**

Figure 6 Total impact of Middlesex University's research activities in 2023-24, £m



Note: All values are presented in 2023-24 prices, rounded to the nearest £0.1 million, and may not add up precisely to the total indicated

Source: London Economics' analysis

2.2 Economic impact of Middlesex University's knowledge exchange activities

In addition to its research activities, the University generates significant economic impacts through a range of **knowledge exchange activities**, which are captured in the above-mentioned HE-BCI data. Specifically, here, we assess the impact of:[42]

i.e. their findings suggest that every £1 spent on public R&D results in an additional *annual* output of £0.20 within the UK private sector *in perpetuity* (under their assumption that the public R&D knowledge stock does not depreciate, i.e. a 0% depreciation rate of public R&D; for more information, also see Haskel et al. (2014b)). Here, conservatively, we do *not* estimate any spillover effects in subsequent years, so that our analysis likely underestimates the total spillovers to the private sector associated with the research undertaken by the University in 2023-24.

[41] Note that by applying this weighted average multiplier, we implicitly assume that the source of Middlesex University's contract research income is representative of all other research income received by the University (in the absence of information related to the source of its contract research income).

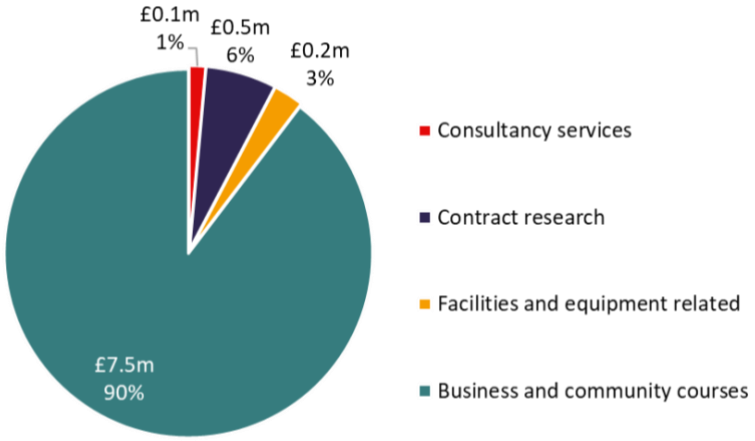
[42] Note again that the income from collaborative research is not included in this section, but is implicitly accounted for in the impact of the University's research (see Section 2.1). Although the income from collaborative research is likely to contain funding related to knowledge exchange activities, it is difficult to attribute it with certainty to a specific knowledge exchange activity. As such, we retain collaborative research within the research impact category (see Section 2.1.2 for more details on the adjustment for double-counting).

- **Contract research** undertaken by the University;
- **Consultancy services** provided by the University;
- **Business and community courses** offered by the University; and
- **Facilities and equipment hire**, and related activities.

Again, in addition to the direct impact in **economic output terms** associated with each of these activities, we estimate the impact in **GVA** and **FTE employment terms**, by multiplying the direct output by the average ratios of GVA to output and of FTE employees to output among organisations within the government, health, and education sector located in Outer London – West and North West.[43]

The **direct impact** of Middlesex University's knowledge exchange activities is made up of **£0.1 million** of income from consultancy services, **£0.5 million** associated with contract research activities, **£7.5 million** generated from business and community courses, and **£0.2 million** associated with the hire of Middlesex University's research facilities. The total direct impact of these activities in 2023-24 therefore stood at **£8.3 million** (see Figure 7), with an associated impact in GVA terms of **£5.1 million**, supporting **80** FTE jobs.

Figure 7 Income from knowledge exchange activities received by Middlesex University in 2023-24, £m by activity



Note: All values are presented in 2023-24 prices and rounded to the nearest £0.1 million.
Source: London Economics' analysis based on data provided by the Higher Education Statistics Agency (HESA, 2025a)

To estimate the **total direct, indirect, and induced impacts** associated with these activities, we multiplied these direct impacts by the estimated average economic multipliers associated with organisations in the government, health, and education sector in Outer London – West and North West. These multipliers are, therefore, the same as those used to estimate the direct, indirect, and induced impacts of the University's research, discussed in Section 2.1.3 above.

Table 4 presents the resulting **aggregate impact** associated with Middlesex University's **knowledge exchange activities**. The analysis estimates that, in 2023-24, the University's

[43] This follows a similar approach as for the estimated impact of the University's research (see Section 2.1), and again assumes that the expenditure patterns of Middlesex University are the same as for other institutions operating in the government, health, and education sector located in Outer London - West and North West.

knowledge exchange activities generated a total of **£16.7 million** of economic output across the UK economy (including **£10.2 million** generated in Outer London – West and North West, and **£13.9 million** occurring in London as a whole). The total GVA impact was estimated at **£9.4 million**, with an estimated **130 FTE jobs** supported across the UK economy.

Table 4 Economic impact associated with Middlesex University's knowledge exchange activities in 2023-24

Type of impact	Output, £m	GVA, £m	# of FTE employees
Outer London - West and North West	£10.2m	£6.0m	90
London	£13.9m	£8.1m	110
Total	**£16.7m**	**£9.4m**	**130**

Note: All monetary values are presented in 2023-24 prices and rounded to the nearest £0.1 million. The employment figures are rounded to the nearest 5.
Source: London Economics' analysis

Note that the analysis presented in this section does not include the impact of Middlesex University's spinout and start-up companies, which is another source of knowledge exchange impact. The University's spinouts tend to be either based outside of the UK, or are not yet at a stage where they generate revenue (or are too small to meet the relevant thresholds for reporting their turnover in Companies House), so they were excluded from the analysis here. In relation to graduate start-ups, while previous research found that 14% of Middlesex University alumni manage or own a business,[44] sufficiently detailed data on the exact nature and turnover of the businesses was unavailable for this study.

2.3 Total impact of Middlesex University's research and knowledge exchange activities

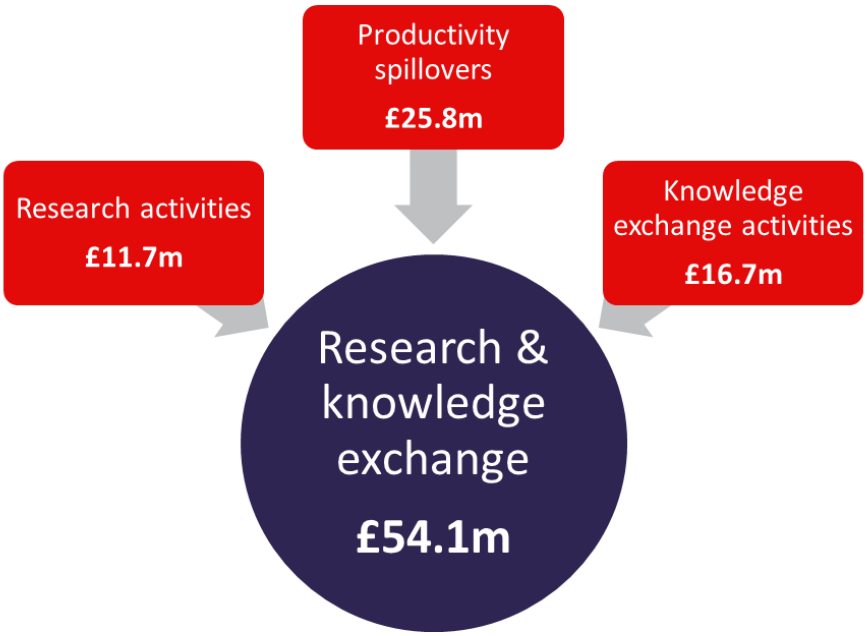
Combining all of the above estimates, the total impact on the UK economy associated with Middlesex University's research and knowledge exchange activities in 2023-24 was estimated to be approximately **£54.1 million** (see Figure 8). In terms of the components of this impact:

- The University's **research activities** accounted for **£11.7 million**.
- The associated **productivity spillovers** to the wider UK economy stood at **£25.8 million**.
- The impact associated with the University's **knowledge exchange activities** was estimated at **£16.7 million**.

The total impact of Middlesex University's research and knowledge exchange activities in 2023-24 stood at £54.1 million.

[44] https://www.mdx.ac.uk/news/2020/01/best-university-student-entrepreneurs/

Figure 8 Total impact of Middlesex University's research and knowledge exchange activities in 2023-24, £m



Note: All values are presented in 2023-24 prices, rounded to the nearest £0.1 million, and may not add up precisely to the totals indicated.
Source: London Economics' analysis

Case Study – Backing Local Business

Small businesses and social enterprises often struggle to access professional legal, tax and business advice due to their high costs. As an anchor institution, **Middlesex University's Faculty of Business and Law** provides direct expertise that helps local enterprise to thrive.

The **University Law Clinic** is a student-led legal advice service that supports individuals who might not be unable to afford legal assistance. It is run by law students under the supervision of qualified solicitors and provides free confidential legal advice on housing, employment and family law. This helps bridge the gap created by legal aid cuts while empowering people to understand their legal rights.

Similarly, Middlesex's **Tax and Accounting Clinic** provides free consultations for individuals, small businesses and community organisations. This clinic is run by experienced Chartered Accountant academics, working alongside final-year accounting students who gain valuable work experience. Together, they support the local community with personal and business tax advice, responding to self-assessment and general accounting queries.

Beyond these clinics, the Faculty of Business and Law's **Careers and Futures Initiative** has built connections with nearly 90 local businesses, involving just under 900 students in real consultancy projects. Students work on briefs including sustainability, artificial intelligence, marketing communications and supply chain management, all overseen by academics. In one particularly successful element of the initiative, MSc Digital Marketing students undertake work experience placements with local businesses to share insights and strategic recommendations from their learning.

Middlesex has also provided targeted support during challenging periods. Following the COVID-19 pandemic, the University helped Barnet's recovery by offering **Continuous Professional Development (CPD) masterclasses** for local micro businesses, as part of an initiative funded by Barnet Council. To tailor the courses to their needs, the Centre for Enterprise and Economic Development Research (CEEDR) surveyed around 500 micro businesses to establish the level of support they required.

Through these initiatives, Middlesex demonstrates how universities can provide practical resources for community resilience and economic development, connecting academic expertise to local business challenges.

The impact of Middlesex University's teaching and learning activities

3

3 The impact of Middlesex University's teaching and learning activities

Teaching and learning constitute some of Middlesex University's primary activities, providing major benefits to the UK economy by improving the labour market productivity of graduates. In this section of the report, we detail our estimates of the economic impact of the teaching and learning activities undertaken at the University. We consider the labour market benefits associated with enhanced qualification attainment and skills acquisition to **both the individual and the public purse**.

3.1 The 2023-24 cohort of domestic Middlesex University students

The analysis of the economic impact of the University's teaching and learning activities is based on the **2023-24 cohort of UK domiciled students**. In other words, instead of the University's entire student body of **15,855** students in the 2023-24 academic year (including both UK and non-UK domiciled students, *irrespective* of when these individuals may have started their studies), the analysis in this section focuses on the **4,750** UK domiciled[45] students **starting higher education qualifications (or standalone modules/credits) at the University in 2023-24.**[46] In terms of the number of UK domiciled student starters, Middlesex University is placed **13th** out of 112 London higher education providers, and has the lowest number of UK domiciled entrants out of the 17 Alliance universities (HESA, 2025d).

In terms of **level of study** (see Figure 9), **59%** (**2,795**) of students in this cohort of UK domiciled students were undertaking **first degrees**, with a further **570** students (**12%**) undertaking **postgraduate taught degrees**, and **120** students (**3%**) enrolled in **postgraduate research degrees**. An additional **820** (**17%**) students were enrolled in **other undergraduate qualifications**,[47] while the remaining **440** (**9%**) students were undertaking **other postgraduate qualifications**.[48]

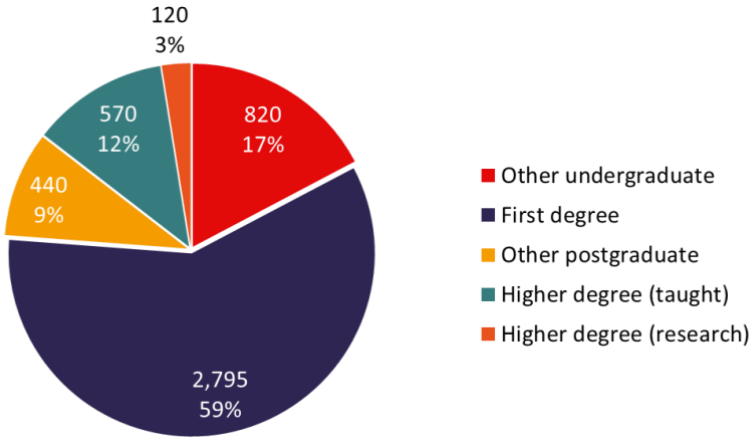
[45] A proportion of EU and non-EU domiciled students undertaking their studies at Middlesex University will remain in the UK to work following completion of their studies; similarly, a proportion of UK domiciled students will leave the UK to pursue their careers in other countries. Given the uncertainty in predicting the extent to which this is the case, and the difficulty in assessing the net labour market returns for students not resident in the UK post-graduation, the analysis of teaching and learning focuses on UK domiciled students only. In other words, for the purposes of this analysis, we assume that all UK domiciled students will enter the UK labour market upon graduation, and that non-UK students will leave the UK upon completing their qualifications at the University.

[46] We received HESA data on a total of 7,680 first-year students from Middlesex University. From this total, we excluded 2,930 non-UK domiciled students (who are instead considered as part of the analysis of educational exports (see Section 4)).

[47] 'Other undergraduate' learning includes Foundation Degrees, Diplomas of Higher Education, Qualified Teacher Status (QTS) qualifications, and other undergraduate-level qualifications, credits and diplomas.

[48] 'Other postgraduate' learning includes Postgraduate Certificates in Education and other postgraduate-level qualifications and certificates.

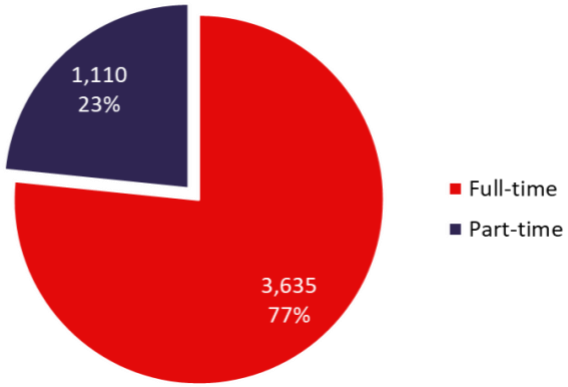
Figure 9 UK domiciled students in the 2023-24 Middlesex University cohort, by level of study



Note: All numbers are rounded to the nearest 5, and the total values may not add up due to this rounding. 'Other undergraduate' learning includes Foundation Degrees, Diplomas of Higher Education, Qualified Teacher Status (QTS) qualifications, and other undergraduate-level qualifications, credits and diplomas. 'Other postgraduate' learning includes Postgraduate Certificates in Education and other postgraduate-level qualifications and certificates.
Source: London Economics' analysis based on Middlesex University HESA data

In relation to **mode of study** (see Figure 10), **3,635** (**77%**) students in the cohort were undertaking their studies with Middlesex University on a full-time basis, while the remaining **1,110** (**23%**) were enrolled on a part-time basis. Most full-time students in the cohort were undertaking first degrees (**76%** of full-time students), whilst part-time students were predominantly enrolled in other undergraduate qualifications (**60%** of part-time students). In terms of **domicile**, over **99%** (**4,710** out of **4,750**) of students in the cohort were domiciled in England.

Figure 10 UK domiciled students in the 2023-24 Middlesex University cohort, by mode of study



Note: All numbers are rounded to the nearest 5, and the total values may not add up due to this rounding.
Source: London Economics' analysis based on Middlesex University HESA data

Figure 11 presents the distribution of Middlesex University's 2023-24 cohort of UK domiciled students by domicile at the Local Authority level. This map illustrates the University's appeal to prospective students in its surrounding area, with approximately **40%** (**1,875**) of the University's

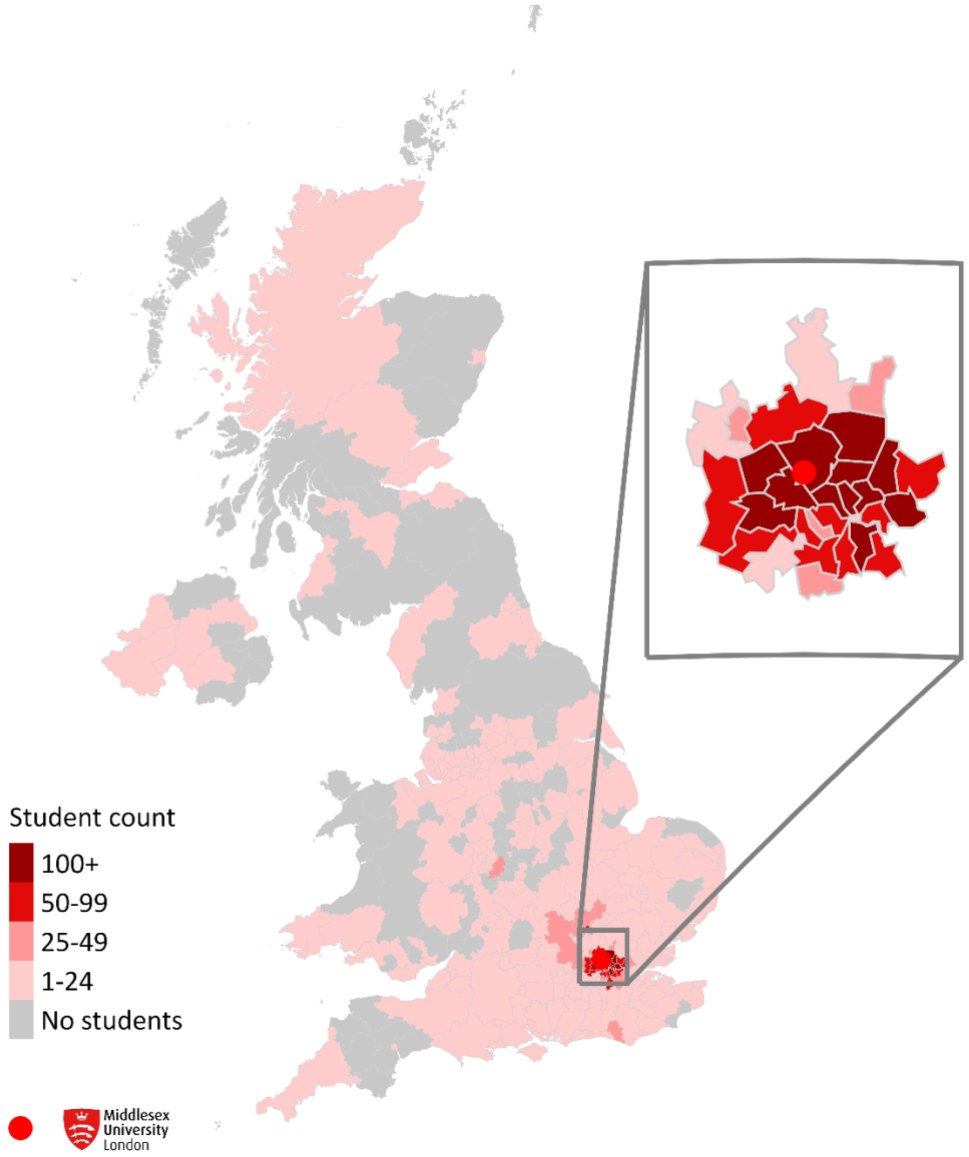
first-year UK domiciled students in 2023-24 coming from **North** or **West London**,[49] and **72%** (**3,400**) from **London** as a whole.

Within London, Middlesex University had a particularly large number of students originating from **Barnet** (**405**, **9%**), **Enfield** (**345**, **7%**), **Brent** (**295**, **6%**) and **Haringey** (**205**, **4%**).

Alongside the University's 'draw' from its local surroundings, the map also shows its attractiveness to students from other parts of the UK, as **11%** of the University's UK domiciled student starters came to the University from each of the **South East** (**520**) and the **East of England** (**510**). The remaining **6%** of UK domiciled students came from other regions and nations of the UK.

[49] Including the following Local Authorities: Barnet, Harrow, Brent, Hammersmith and Fulham, Ealing, Hounslow, Hillingdon, Enfield, Haringey, and Waltham Forest.

Figure 11 UK domiciled first-year students in the 2023-24 Middlesex University cohort, by Local Authority of domicile



Note: Based on HESA data on a total of 4,745 first-year students from Middlesex University. Domicile refers to a student's permanent home address before starting their qualification at Middlesex University. Totals may not sum due to rounding.
Source: London Economics' analysis based on data from Middlesex University and the Office for National Statistics. Contains National Statistics, OS, Royal Mail, Gridlink, ONS, NISRA, NRS and Ordnance Survey data © Crown copyright and database right 2025.

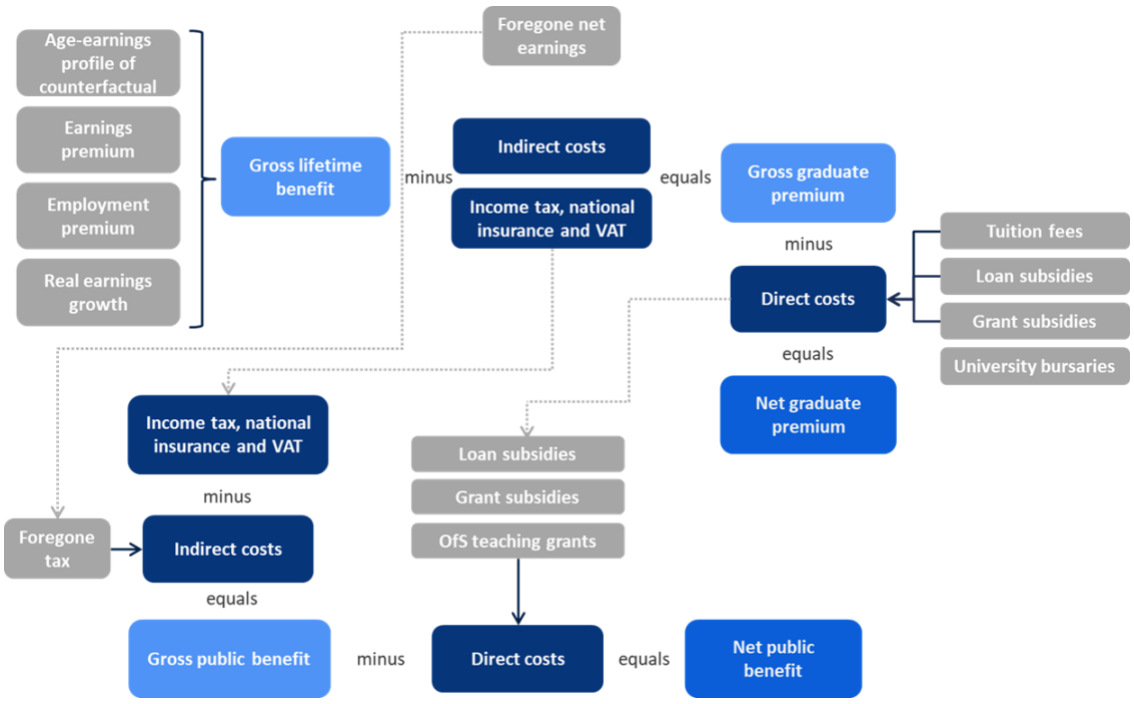
3.2 Methodology

The analysis of the impact of the University's teaching and learning captures the enhanced labour market benefits and taxation receipts (minus the costs of attendance/provision) associated with students in the above 2023-24 cohort completing qualifications at Middlesex University. Specifically, the fundamental objective of the analysis is to estimate the **gross and net graduate premium** to the individual and the **gross and net public purse benefit** to the

Exchequer associated with higher education qualification attainment, defined as follows (and presented in Figure 12):[50]

- The ***gross* graduate premium** associated with qualification attainment is defined as the **present value of enhanced after-tax earnings** (i.e. after income tax, National Insurance and VAT are removed, and following the deduction of any foregone earnings during study) relative to an individual in possession of the counterfactual qualification.
- The ***gross* benefit to the public purse** is defined as the **present value of enhanced taxation** (i.e. income tax, National Insurance and VAT, following the deduction of the costs of foregone tax revenues during study) relative to an individual in possession of the counterfactual qualification.
- The ***net* graduate premium** is defined as the gross graduate premium *minus* the direct costs associated with qualification attainment.
- The ***net* benefit to the public purse** is defined as the gross public purse benefit minus the direct Exchequer costs of provision during the period of attainment.

Figure 12 Overview of the assessment of the gross and net graduate premium and gross and net Exchequer benefit



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

[50] See Annex A2.3 for a detailed description of the methodology used to estimate the impact of the University's teaching and learning activities.

The analysis examines the benefits of the above-described single cohort of students (i.e. the cohort of 2023-24 UK domiciled starters) across their lifetimes in present value terms (i.e. in 2023-24 money). A detailed methodology is presented in Annex A2.3.[51]

[51] The estimation of the net graduate premiums and net Exchequer benefits is based on a detailed econometric analysis of the Labour Force Survey. The analysis considers the impact of higher education qualification attainment on earnings and employment outcomes; however, as no information is specifically available on the particular higher education institution attended, the analysis is *not* specific to Middlesex University alumni. Rather, the findings from the analysis are adjusted to reflect the characteristics of the 2023-24 cohort of Middlesex University students to the greatest extent possible (e.g. in terms of mode of study, level of study, subject mix, domicile, gender, average age at enrolment, or duration of qualification). Again, for further information on our methodological approach, see Annex A2.3.

Case Study – Lifelong Learning Agreement

Going to university remains one of the most powerful drivers for social mobility, boosting lifetime earnings and improving health outcomes. However, many young people who aspire to study at university face uncertainty about their route into higher education.

Middlesex is committed to making educational opportunities accessible for all local young people, ensuring students are prepared for lifelong learning and leadership, whilst developing work-ready skills to benefit employers across Barnet and North London.

The Lifelong Learning Agreement between **Middlesex University and Barnet Education and Learning Service** (BELS) guarantees every student at a Barnet school or college who meets their course criteria an interview or offer to study, removing barriers and providing certainty during their decision-making.

Supporting **Barnet's Post-16 Educations and Skills Strategy**, the Agreement provides schools with employability workshops, access to annual events such as the STEM Festival and campus visits focused on specific subjects.

Middlesex's work with local colleges and colleges extends beyond the Agreement. In 2024, Middlesex **delivered 60 activities with more than 4,000 Barnet school and college students**. More than 1,200 of these students visited the Hendon campus, exploring facilities such as the laboratories and nursing wards. Other initiatives have included a sustainability competition, involving more than 600 pupils from three Barnet schools, who worked in teams to come up with innovative solutions to reduce waste.

Pupils from local **Saracens High School** also take part in four days of nursing and midwifery training sessions at Middlesex, supporting their journey toward potential careers in healthcare. These sessions are developed collaboratively by Middlesex, schools and BELS to support pupils studying a T-Level in Health, better preparing them for industry placements. In 2025, some of these students are expected to progress onto nursing and midwifery degree programmes, demonstrating how sustained partnerships create clear pathways from the classroom into the workplace.

3.3 Impact of the University's teaching and learning activities

3.3.1 Estimated net graduate premium and net Exchequer benefit per student

The net graduate premium for a representative full-time first degree student stands at £64,000.

Table 5 presents the net graduate premiums and net Exchequer benefits achieved by UK domiciled students starting qualifications at Middlesex University in 2023-24 (on average across men and women and across students from all domiciles). The analysis estimates that the average **net graduate premium** achieved by a representative[52] student in the 2023-24 cohort completing a **full-time** first degree at Middlesex University (with an RQF Level 3 qualification as their highest level of prior attainment[53]) is approximately **£64,000** in today's money terms. At postgraduate level, the net (post)graduate premium for representative students completing a full-time postgraduate taught degree at Middlesex University (relative to a first degree) stands at **£65,000**.

Table 5 Net graduate premium and net Exchequer benefit per UK domiciled student in the 2023-24 Middlesex University cohort, by study level and mode

Level of study	Net graduate premium		Net public purse benefit	
	Full-time students	Part-time students	Full-time students	Part-time students
Other undergraduate[1]	£68,000	£45,000	£59,000	£29,000
First degree[1]	£64,000	£72,000	£69,000	£46,000
Other postgraduate[2]	£12,000	£22,000	£20,000	£18,000
Higher degree (taught)[2]	£65,000	£57,000	£70,000	£50,000
Higher degree (research)[2]	-£6,000[54]	£37,000	£44,000	£28,000

Note: All estimates constitute weighted averages across men and women (weighted by the estimated number of student completers in the 2023-24 cohort) and are presented in 2023-24 prices, discounted to net present values, and rounded to the nearest £1,000.
We assume that the gross graduate premium / Exchequer benefit associated with any HE qualification attainment can never be negative – i.e. students will never incur a wage/employment penalty from achieving additional qualifications. In instances where this would be the case, we instead assume a £0 gross graduate premium / Exchequer benefit (while the costs of qualification attainment would still be incurred). Gaps may arise where there are no students in the 2023-24 Middlesex University cohort expected to complete the given qualification (with the given characteristics).
[1] Net graduate premiums and net public purse benefits associated with qualifications at 'other undergraduate' and first degree level are estimated relative to possession of Level 3 qualifications (see Annex A2.3.3 for further detail). [2] Net graduate premiums and net public purse benefits associated with qualifications at 'other postgraduate', higher degree (taught) and higher degree (research) level are estimated relative to the possession of first degrees.
Source: London Economics' analysis

[52] The analysis is based on an average age at graduation of 26 for students undertaking full-time first degrees at Middlesex University in the 2023-24 cohort (also see Annex A2.3.5 for further information).
[53] As further outlined in Annex A2.3.3, this predominantly includes 2 or more GCE 'A' levels (or equivalent qualifications). RQF refers to the Regulated Qualifications Framework used in England, Wales, and Northern Ireland.
[54] The negative net graduate premium for higher degree (research) graduates reflects a high age of enrolment for these graduates (of 35 (see Annex A2.3.5)), meaning that these graduates forego larger expected earnings during their studies than students studying other postgraduate qualifications (due to higher average earnings at this age), and that these

There are also substantial **net graduate premiums** for **part-time** students. For instance, the estimated net graduate premium for a representative part-time student in the cohort completing a first degree stands at **£72,000**. The fact that part-time students tend to complete their studies later in life[55] (resulting in fewer years spent in the labour market post-graduation) results in a relative reduction in the net graduate premiums for part-time students compared to full-time students. However, it is assumed that part-time students are able to combine work with their academic studies and thus do not incur any opportunity costs in the form of foregone earnings, which results in increased net graduate premiums relative to full-time students. Depending on which of these effects dominates, the net graduate premiums for part-time students can be either lower or higher than the corresponding net graduate premiums achieved by full-time students.

The net public purse benefit for a representative full-time first degree student stands at £69,000.

The public purse also benefits significantly from higher education qualification attainment at Middlesex University. The **net Exchequer benefit** for a representative **full-time first degree** student (again with a Level 3 qualification as their highest level of prior attainment) stands at approximately **£69,000** in 2023-24 money terms. The corresponding net Exchequer benefit for a representative student completing a full-time postgraduate taught degree (relative to first degrees) was estimated at approximately **£70,000**.

Again, there are also large net Exchequer benefits associated with **part-time students**. For instance, the net Exchequer benefit for a representative part-time student undertaking a postgraduate taught degree (relative to a first degree) stands at approximately **£50,000**.

3.3.2 Total impact of teaching and learning activities at Middlesex University

The total economic impact of teaching and learning generated by the 2023-24 cohort of Middlesex University students stood at £394.7 million.

Combining the information on the number of UK domiciled students in the 2023-24 Middlesex University cohort, expected completion rates, and the net graduate and public purse benefits associated with the different qualification levels (relative to students' specific prior attainment), the **aggregate economic benefit of the University's teaching and learning activities** associated with the 2023-24 cohort was estimated to approximately **£394.7 million** (see Table 6).

This total impact is split roughly evenly between the Exchequer and students, with **£204.9 million** (**52%**) of the economic benefit accrued by the Exchequer, and the remaining **£189.7 million** (**48%**) accrued by students. In terms of study level, **82%** (**£325.1 million**) of the total impact is generated by Middlesex University's undergraduate students, with the remaining **18%** (**£69.6 million**) generated by the University's postgraduate students. In terms of domicile, reflecting the distribution of students in the cohort, **99%** (**£391.1 million**) of the total impact is

graduates have fewer years in the labour market post-graduation to benefit from the enhanced earnings associated with their qualification.

[55] Again, see Annex A2.3.5 for more information.

generated by students from England, while the remaining **1%** (**£3.6 million**) is generated by students coming to Middlesex University from elsewhere in the UK.

Table 6 Aggregate impact of Middlesex University's teaching and learning activities associated with the 2023-24 cohort (£m), by type of impact and level of study

Study level	Students	Exchequer	Total
Undergraduate	£158.0m	£167.1m	£325.1m
Postgraduate	£31.8m	£37.8m	£69.6m
Total	**£189.7m**	**£204.9m**	**£394.7m**

Note: All estimates are presented in 2023-24 prices, discounted to reflect net present values, rounded to the nearest £0.1m, and may not add up precisely to the totals indicated.
Source: London Economics' analysis

The impact of Middlesex University's educational exports

4

4 The impact of Middlesex University's educational exports

In this part of the analysis, we focus on the impact of educational exports through the injection of **overseas funding into the UK generated by the University.** Specifically, we analyse overseas income in the form of **tuition fee spending** (net of any fee waivers and other bursaries provided by the University) and **non-tuition fee (off-campus) expenditures** by international students in the 2023-24 cohort of Middlesex University students, over the entire course of their studies.[56]

In addition to the **direct impact**, captured by the level of (net) fee income (accrued by Middlesex University itself) and non-fee income (accrued by other organisations providing goods and services to international students) associated with non-UK students in the 2023-24 cohort, the analysis also estimates the **indirect and induced economic impacts** associated with this export income on the UK economy. These again reflect the chain reaction of subsequent rounds of spending throughout the economy that are generated by this export income, i.e. a 'ripple effect'.[57] The analysis of these impacts follows a similar methodology to the one used to estimate the direct, indirect, and induced economic effects associated with the University's research and knowledge exchange activities (see Section 2) and operational and capital expenditures (see Section 5).

4.1 The 2023-24 cohort of international Middlesex University students

Figure 13 and Figure 14 present information on the number of non-UK domiciled students in the 2023-24 cohort of Middlesex University students (by domicile and level of study, respectively).

A total of **2,935** international students started higher education qualifications at Middlesex University in 2023-24, which is the **12th** highest among University Alliance members, and places the University **14th** out of 83 London HEPs which admitted international students in 2023-24 (HESA, 2025d). In terms of domicile (Figure 13), **120** (**4%**) of these students were domiciled within the European Union, while **2,810** (**96%**) were from non-EU countries. Figure 15 presents more detailed information on the country of domicile of international students in the 2023-24 cohort.

In terms of study level (Figure 14), in contrast to UK domiciled students (see Section 3.1), the majority of non-UK domiciled students in the cohort were undertaking postgraduate qualifications (**1,840, 63%**), including **1,765** students (**60%**) enrolled in postgraduate taught

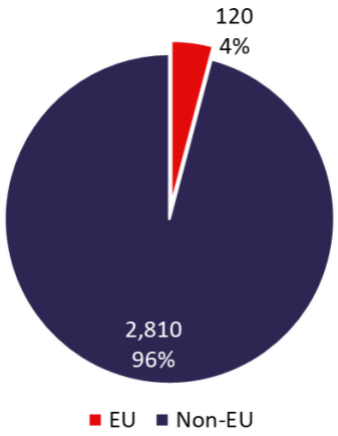
[56] Note that other types of export income accrued directly by Middlesex University (such as research income from international sources, or any other income received from non-UK sources) are accounted for in our analysis of the impact of the University's research activity (Section 2.1) and the impact of the expenditures of the University (Section 5), and are thus excluded from the analysis of educational exports to avoid double-counting.

[57] Our analysis excludes any similar direct, indirect, and induced effects associated with the non-fee expenditures of *UK domiciled* students. In this respect, we (conservatively) assume that these expenditures are *not* additional to the UK economy (i.e. that they would likely have occurred even if these students had not enrolled in programmes at Middlesex University). The economic impact associated with UK students' tuition fee expenditures is instead (implicitly) included in the estimated direct, indirect, and induced impacts associated with Middlesex University's own expenditures (see Section 5).

degrees, **55** (**2%**) undertaking postgraduate research degrees, and **20** (**1%**) undertaking other postgraduate qualifications. At undergraduate level, there were **1,085** (**37%**) students undertaking first degrees, and **10** (**0.3%**) students enrolled in other undergraduate qualifications.

Lastly, in terms of study mode, most international students in the cohort (**2,795**, **95%**) were undertaking their qualifications on a full-time basis, with **135** (**5%**) studying on a part-time basis.

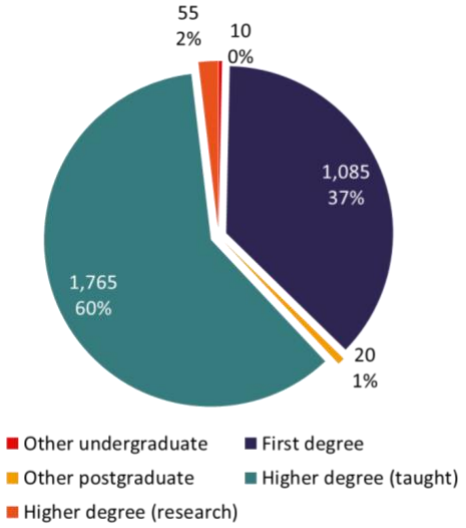
Figure 13 Non-UK domiciled students in the 2023-24 cohort of Middlesex University students, by domicile



Note: All numbers are rounded to the nearest 5, and the total values may not add up precisely due to this rounding.

Source: London Economics' analysis based on Middlesex University HESA data.

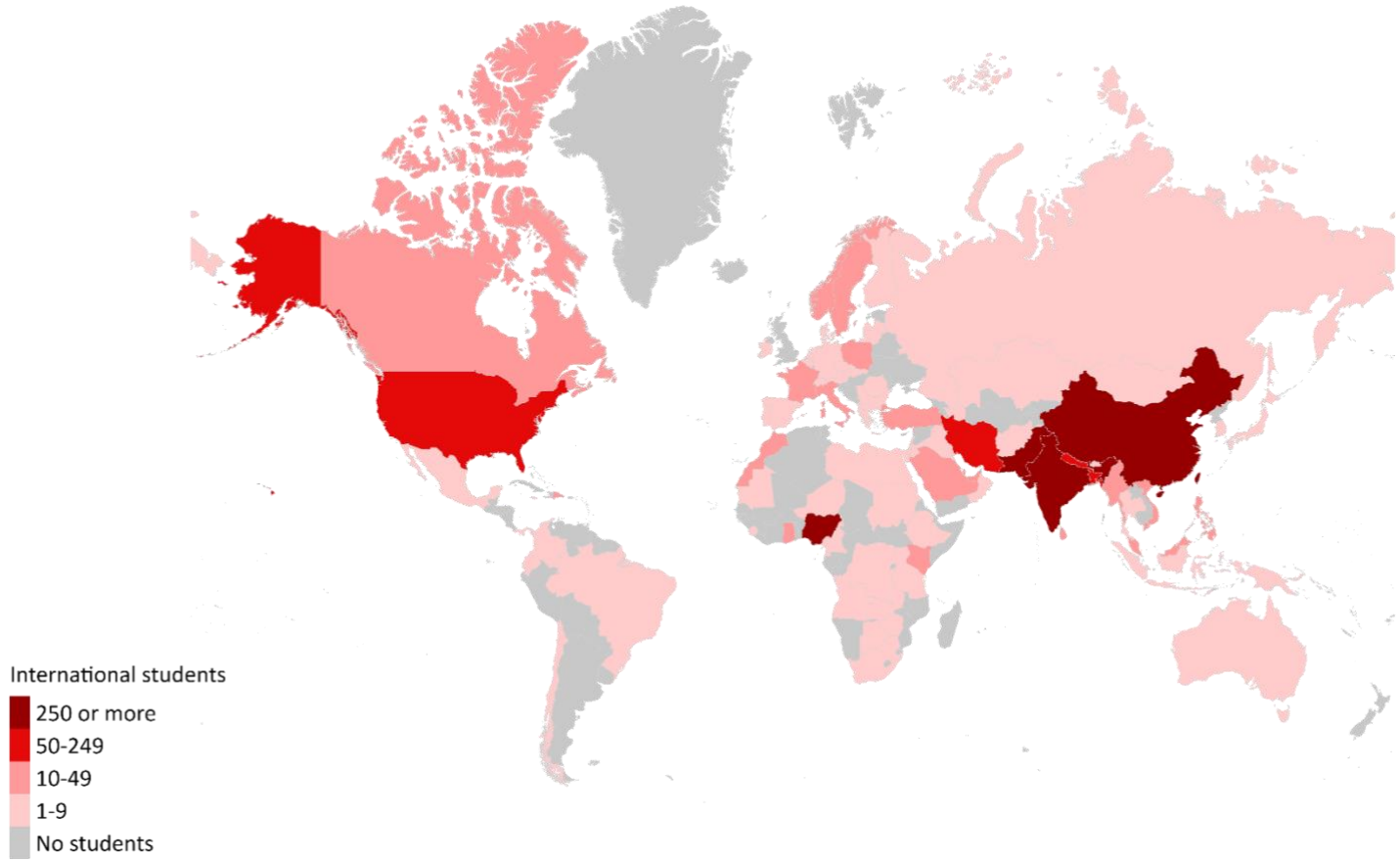
Figure 14 Non-UK domiciled students in the 2023-24 cohort of Middlesex University students, by study level



Note: All numbers are rounded to the nearest 5, and the total values may not add up precisely due to this rounding.

Source: London Economics' analysis based on Middlesex University HESA data.

Figure 15 Non-UK domiciled students in the 2023-24 cohort of Middlesex University students, by country of domicile



Note: Based on data provided by Middlesex University on 2,930 first year overseas domiciled students from Middlesex University in 2023-24. Of these students, 5 were excluded as they could not be matched to a country within the World Bank data. Therefore, this figure is based on 2,925 international students.
Source: London Economics' analysis based on Middlesex University and World Bank data.

Case Study – Building Futures in Creative Industries

The creative industries are one of the UK's most exciting and fast-growing sectors - yet they face a critical shortage of skilled people and many young people feel shut out of creative careers. Middlesex University has joined forces with Barnet Council, Southgate College, and Troubadour Brent Cross Studios to form **Screen London Barnet** - a new partnership opening pathways into the screen industries and transforming North London's creative landscape.

Through Screen London Barnet, Middlesex students gain training, experience and connections whilst bringing the creativity and fresh thinking the creative industries urgently need. The partnership's shared vision is to create a diverse and sustainable workforce that reflects the local communities it serves and ensures every talented individual can find their place in the industry.

Barnet already has the foundations for success. The borough is home to major production facilities such as **Troubadour Brent Cross Studios** and its location - between central London and the major studios at Elstree, Leavesden, and Shepperton - places it at the **heart of the West London production corridor** where nearly a quarter of all UK screen jobs are based.

The **Barnet Screen Skills Plan**, which underpins the partnership, aligns with both the UK Government's 2025 **Creative Industries Sector Vision** - a national plan investing over £100 million in creative growth - and supports **Barnet's Growth Strategy**, which aims to make the borough a hub of innovation and opportunity. Together, these initiatives will position Barnet as a leading centre for film, television, animation, gaming, immersive technologies, and digital media.

A central part of this vision is **MDX Studios**, a state-of-the-art facility located at Middlesex. MDX Studios will be a hub for content development and production, where students work on real-world projects alongside industry professionals. It will give them hands-on experience in production, editing, and design, whilst also providing industry partners with access to skilled crews, affordable production space, and support services such as accounting, marketing, and research partnerships.

Future creative industries programmes at Middlesex will include embedded placements at MDX Studios, ensuring graduates leave with the skills, confidence, and experience the industry needs. Through this alliance, Middlesex is not just training the next generation of filmmakers, designers, and producers - it is helping to build the future of the UK's creative industries in North London.

4.2 Direct impact

4.2.1 Methodology

Net tuition fee income

To assess the level of ***gross* tuition fee income** associated with international students in the 2023-24 cohort, we used data on the average tuition fees per student charged by Middlesex University in the 2023-24 academic year (by study level and mode[58]). Assuming the same average study durations as in the analysis of the impact of Middlesex University's teaching and learning activities provided to UK domiciled students (see Annex A2.3.5), we calculated the resulting tuition fee income per international student in the cohort from the start of a student's learning aim until completion. Expressing the total fee income until completion in 2023-24 prices and using the HM Treasury Green Book real discount rate of **3.5%/3.0%** (see HM Treasury, 2022), we arrived at an estimate of the gross tuition fee income per student (in present value terms over the total study duration).

To calculate the ***net tuition* fee income** per student, we then deducted any fee waivers and bursaries paid to international students by Middlesex University.[59] These costs were again calculated over students' total study duration and estimated in present value terms. These estimates per student were then combined with information on the number of non-UK students in the 2023-24 cohort, and the same assumptions on completion rates as for UK domiciled students (as part of the analysis of the impact of teaching and learning (see Annex A2.3.1)).

Non-fee income

In addition to tuition fees, the UK economy benefits from export income from overseas students' **non-fee (i.e. living cost) expenditures** incurred during their studies at Middlesex University. These costs include:

- **Accommodation costs** (e.g., rent costs, council tax, household bills etc.);
- **Subsistence costs** (e.g., food, entertainment, personal items, non-course travel etc.);
- **Direct course costs** (e.g., course-related books, subscriptions, computers etc.);
- **Facilitation costs** (e.g., course-related travel costs); and
- **Spending on children** (including childcare that is not related to students' course participation).

To analyse the level of non-tuition fee expenditure associated with the 2023-24 cohort of international Middlesex University students, we used estimates from the **2021-22 Student Income and Expenditure Survey** (SIES).[60] The survey provides estimates of the average expenditures of English domiciled undergraduate students (studying in England or Wales) on living costs, housing costs, participation costs (including tuition fees) and spending on children,

[58] As in the analysis of Middlesex University's teaching and learning activities (see Annex A2.3.7), we made use of information provided by Middlesex University to estimate average tuition fees per student, separately by study level and mode. All non-UK domiciled students are assumed to not be eligible for home fees or public student support.
[59] See Annex A2.3.7 for more information on our assumptions in relation to fee waivers and bursaries.
[60] See National Centre for Social Research & Institute for Employment Studies (2023).

separately for full-time and part-time students. For this analysis, we made the following adjustments to the SIES estimates:

- We excluded estimates of **tuition fee expenditure** (to avoid double-counting with the above-described analysis of international tuition fee income).
- We deducted any **on-campus expenditure** that students might incur (to avoid double-counting with the analysis of the impacts of the expenditure of Middlesex University itself (see Section 5)).[61]
- Since the SIES results do not provide expenditure estimates for non-UK domiciled students, our analysis implicitly assumes that the rate of non-tuition fee expenditure levels does not vary significantly between UK and international students (i.e., that the non-tuition fee expenditure of international students and UK students per week is approximately equivalent).
- We made assumptions regarding the **average stay durations** in the UK of international students by domicile and study level.[62] We assume that, on average, EU undergraduate students spend 39 weeks in the UK (the average duration of the academic year). We assume a slightly longer stay duration for non-EU undergraduates, of 42 weeks, reflecting the fact that non-EU students are less likely to return home on average given the extra travel required to do so. We assume that both EU and non-EU postgraduates spend 52 weeks in the UK as they write their dissertations during the summer.

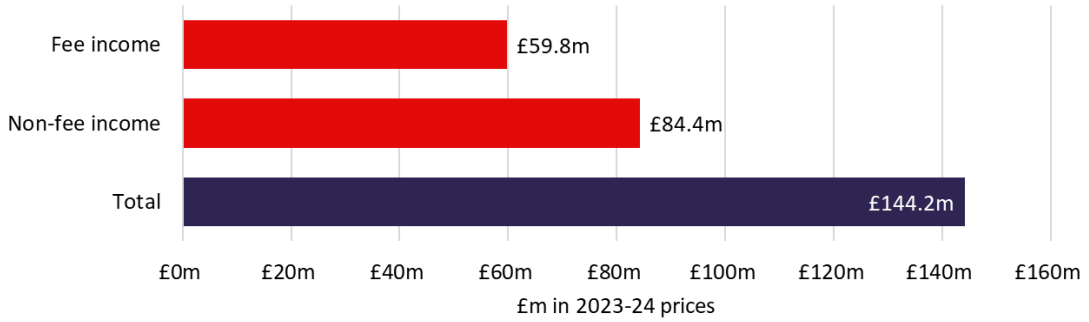
Similarly to tuition fees, we then calculated the non-tuition fee expenditure over the entire duration of students' higher education courses (and discounted to reflect present values). The resulting estimates provide the total average (off-campus) non-fee expenditure per student in 2023-24 prices, by level of study, mode, and domicile. Again, the estimated non-tuition fee spending per student was combined with the number of international students in the 2023-24 cohort expected to complete qualifications (or credits/modules) at Middlesex University.

4.2.2 Total direct impact

The total direct economic impact of the expenditures of international students in the 2023-24 Middlesex University cohort (in economic output terms) was estimated at **£144.2 million** (Figure 16). Around two-fifths of this total (**£59.8 million, 41%**) was generated from international students' tuition fees accrued by Middlesex University (net of any fee waivers or bursaries provided by the University), while the remaining **£84.4 million** (**59%**) was generated from these students' non-tuition fee spending. In terms of student domicile, reflecting the composition of the cohort, most of this impact (**£137.2 million**, **95%**) was generated by non-EU domiciled students, while **£7.0 million** (**5%**) was associated with EU students (not presented graphically here).

[61] Specifically, following the approach undertaken by Oxford Economics (2017) in analysing the collective economic impact of all UK higher education institutions in 2014-15, we assume that **10%** of students' non-tuition fee expenditures are spent on campus (i.e. are accrued as income by Middlesex University itself).
[62] These adjustments are based on the approach outlined by the Department for Business, Innovation and Skills (2011b) in estimating the value of educational exports to the UK economy.

Figure 16 Total direct impact associated with non-UK students in the 2023-24 Middlesex University entrant cohort



Note: All monetary estimates are presented in 2023-24 prices, discounted to reflect net present values, and rounded to the nearest £0.1m.
Source: London Economics' analysis

In addition to economic output (i.e. export income), it was possible to convert the above estimates into GVA and the number of FTE jobs supported.[63] We thus estimate that the export income generated by international students in the 2023-24 Middlesex University cohort directly generates **£85.8 million** in GVA (**£36.4 million** from international (net) fee income and **£49.4 million** from non-fee income) and supports **995** FTE jobs (**585** from (net) tuition fee income and **410** from non-tuition fee income).

4.3 Total economic impact associated with Middlesex University's educational exports

To estimate the total (direct, indirect, and induced) economic impact associated with the export income generated by international Middlesex University students, we again used economic multipliers derived from the above-described multi-regional Input-Output model (see Section 2.1), estimating the extent to which the direct export income generates additional activity throughout the UK economy. Specifically, we applied two types of multipliers to the above-described fee and non-fee income associated with international students in the 2023-24 cohort, including:[64]

- **Multipliers relating to international tuition fee income (accrued by Middlesex University itself)**: The multipliers used to estimate the impact of Middlesex University's international tuition fee income were calculated based on the inter- and

[63] To estimate the direct GVA and employment associated with the (net) tuition fee income generated by Middlesex University's international students, we multiplied this income by the average ratio of GVA to output and FTE employees to output within the government, health, and education sector in Outer London - West and North West (again based on the above-described multi-regional Input-Output model, using a similar approach as for the impact of the University's research and knowledge exchange activities). To estimate the direct GVA and employment associated with the non-tuition fee income generated by the University's international students, we instead multiplied this income by the average ratio of GVA to output and FTE employees to output associated with the expenditure of households located in Outer London – West and North West (also based on the multi-regional Input-Output model). In other words, we assume that the non-tuition fee expenditures of Middlesex University's international students support the same levels of GVA and employment (in relative/proportionate terms) as the expenditure of households located in Outer London - West and North West more generally.
[64] With regards to tuition fee income accrued by Middlesex University, we assume that the expenditure patterns of the University are the same as for other institutions in the government, health, and education sector in Outer London - West and North West. For non-tuition fee expenditure, we assume that international students studying at Middlesex University have similar expenditure patterns as households in Outer London - West and North West more generally.

intra-industry flows of goods and services for the government, health, and education sector in Outer London - West and North West.

- **Multipliers relating to income from international students' (off-campus) non-tuition fee expenditures:** These were calculated based on the final consumption expenditure patterns of households located in Outer London - West and North West, and applied to the estimated off-campus non-tuition fee expenditures of overseas students in the 2023-24 cohort of Middlesex University students.

The impact of the export income generated by the 2023-24 Middlesex University student cohort stood at £280.9 million.

Again, these multipliers are expressed in terms of **economic output, GVA**, and **FTE employment**, and are calculated as **total multipliers**, capturing the aggregate impact on all industries in the UK economy arising from an initial injection relative to that initial injection. Table 7 presents the economic multipliers applied to the income generated by international students at Middlesex University (in terms of the impact on Outer London - West and North West, London, and the UK economy as a whole).[65]

Table 7 Economic multipliers associated with the income from international students in the 2023-24 Middlesex University cohort

Location of impact and type of income	Output	GVA	FTE employment
Tuition fee income			
Outer London - West and North West	1.22	1.19	1.13
London	1.67	1.60	1.37
Total UK	2.00	1.86	1.57
Non-fee income			
Outer London - West and North West	1.24	1.24	1.25
London	1.65	1.64	1.66
Total UK	1.91	1.85	1.97

Note: All multipliers constitute Type II multipliers, defined as [Direct + indirect + induced impact]/[Direct impact].
Source: London Economics' analysis

Applying these multipliers to the above direct impacts,[66] we estimate that the total economic impact on the UK generated by the (net) tuition fee income and non-tuition fee income associated with international students in the 2023-24 Middlesex University cohort amounts to **£280.9 million** in **economic output** terms (see Table 8):

- In terms of the breakdown by type of income, **£119.9 million** of this impact was associated with international students' (net) **tuition fees**, and **£160.9 million** was

[65] While the table presents the multipliers for the impacts on Outer London - West and North West, London, and the UK as a whole, a full breakdown of the total economic impacts of the University's activities across all regions (as well as by sector) is provided in Section 6.

[66] In terms of tuition fee income, note that we apply the relevant multipliers to the *gross* tuition fee income generated by international students in the 2023-24 Middlesex University cohort, and then deduct the University's cost of fee waivers and bursaries to arrive at the *net* direct, indirect and induced impact associated with this income.

generated by their **non-tuition fee expenditures** over the duration of their studies at Middlesex University.

- In terms of the breakdown by region, most of this impact (**£177.9 million**, **63%**) was generated in **Outer London - West and North West**, with **£61.4 million** (**22%**) generated in the **rest of London**, and the remaining **£41.6 million** (**15%**) occurring in other regions across the UK.

The impact in terms of **GVA** was estimated at **£158.9 million** across the UK economy as a whole (with **£104.6 million** generated within Outer London - West and North West, and **£34.5 million** generated across the rest of London), while the corresponding estimate in terms of employment stood at **1,725 FTE jobs** across the UK as a whole (with **1,170** jobs supported across Outer London - West and North West and **310** across the rest of London).

Table 8 Total economic impact associated with Middlesex University's educational exports in the 2023-24 academic year

Location of impact	Output, £m	GVA, £m	FT Employment
Fee income			
Outer London - West and North West	£73.3m	£43.4m	660
London	£99.8m	£58.0m	800
Total	**£119.9m**	**£67.5m**	**920**
Non-fee income			
Outer London - West and North West	£104.6m	£61.2m	510
London	£139.5m	£81.1m	680
Total	**£160.9m**	**£91.4m**	**805**
Total			
Outer London - West and North West	£177.9m	£104.6m	1,170
London	£239.2m	£139.1m	1,480
Total	**£280.9m**	**£158.9m**	**1,725**

Note: Monetary estimates are presented in 2023-24 prices, discounted to reflect net present values, rounded to the nearest £0.1 million, and may not add up precisely to the totals indicated. Employment estimates are rounded to the nearest 5 and again may not add up precisely to the totals indicated.
Source: London Economics' analysis

The impact of Middlesex University's expenditures

5

5 The impact of Middlesex University's expenditures

In this section, we outline our estimates of the **direct, indirect, and induced impacts associated with the operational and capital expenditures of Middlesex University**. The **direct impact** considers the economic output generated by the University itself, by purchasing goods and services (including labour) from the economy in which it operates. Similar to the impact associated with the University's research and knowledge exchange activities (see Section 2) and educational exports (see Section 4), the **indirect and induced economic impacts** of the University's expenditures reflect the chain reaction of subsequent rounds of spending throughout the economy, i.e. a 'ripple effect'. Again, these impacts can be measured in terms of economic output, GVA, and FTE employment, and are derived using the relevant multipliers derived from the above-described multi-regional Input-Output model.

5.1 Direct impact of the University's expenditures

5.1.1 Gross direct impact of the University's expenditures

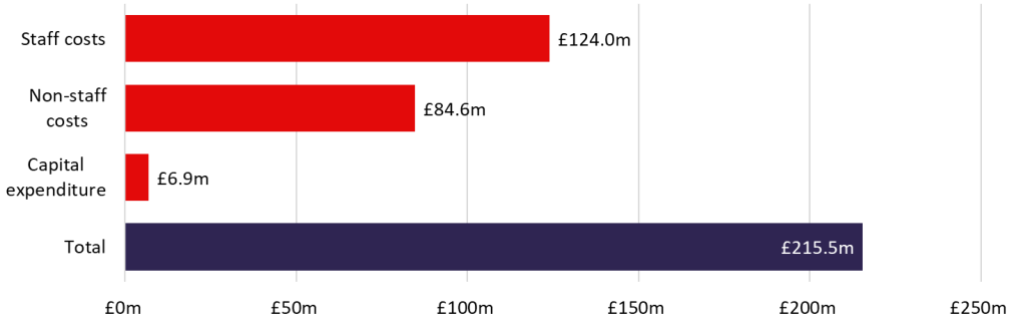
To measure the direct economic impact of the purchases of goods, services, and labour by Middlesex University, we used information on the University's operational expenditures (including staff and non-staff spending), capital expenditures, as well as the number of staff employed (in terms of full-time equivalent employees), for the 2023-24 academic year.[67]

Based on this, in terms of monetary economic **output** (measured in terms of expenditure), **the gross direct economic impact** associated with Middlesex University's expenditures stood at approximately **£215.5 million** in the 2023-24 academic year (see Figure 17). This includes **£124.0 million** of operating expenditure on staff related costs, **£84.6 million** of expenditure on other (non-staff) operating expenses,[68] as well as **£6.9 million** of capital expenditure incurred in that academic year.

In terms of staff, the University employed a total of **1,285** FTE staff in 2023-24[69] (**1,430** in headcount terms). In GVA terms, the University's gross direct impact stood at **£115.7 million**.

[67] Based on staff data published by HESA (2025b) and Middlesex University's annual accounts (Middlesex University, 2024).
[68] The total operational expenditure (excluding capital expenditure) of Middlesex University in 2023-24 stood at **£218.0 million**. From this, for the purpose of the analysis, we excluded **£9.4 million** in depreciation costs and pension provision movements, as it is assumed that these costs are not relevant from a procurement perspective (i.e. these costs are not accounted for as income by other organisations). This results in the total operational expenditure of **£208.6 million** in 2023-24.
[69] Based on data published by HESA (2025b). Note that this excludes staff on atypical contracts.

Figure 17 Gross direct economic impact (in terms of output) of Middlesex University's expenditure in the 2023-24 academic year, by type of expenditure



Note: All estimates are presented in 2023-24 prices and rounded to the nearest £0.1m.
Source: London Economics' analysis of Middlesex University's annual accounts (Middlesex University, 2024).

5.1.2 Net direct impact of the University's expenditures

Before arriving at the net direct impact associated with Middlesex University's expenditure, it is necessary to deduct a number of income and expenditure items to avoid double-counting, and to take account of the 'netting out' of the costs and benefits associated with the University between different agents in the UK economy. Specifically, we deducted a total of **£83.4 million**, including:

- The total research income (excluding contract research income) received by the University in the 2023-24 academic year (**£10.7 million**), to avoid double-counting with the estimated impact of the University's research activities (Section 2.1).
- The University's income from its knowledge exchange activities (including contract research income) of **£8.3 million**, to avoid double-counting with the impact of the University's knowledge exchange activities (Section 2.2).
- **£2.1 million** in Middlesex University bursary spending for UK-domiciled students,[70] as this was included (as a benefit) in the analysis of the University's teaching and learning activities (Section 3).
- The University's (gross) international fee income associated with the 2023-24 cohort of non-UK students (**£62.3 million**),[71] to avoid double-counting with the impact of the University's educational exports (Section 4).

After accounting for these deductions, the net direct impact of the University's expenditure in 2023-24 stood at **£132.1 million**.

[70] The University's bursary support to UK-domiciled students is considered as a benefit to the student in the analysis of the impact of teaching and learning activities (see Section 3). It was therefore necessary to deduct these bursaries from the direct impact of the University's spending to correctly take account of the fact that these bursaries are a transfer from the University to its students, and not an additional benefit to the UK economy.

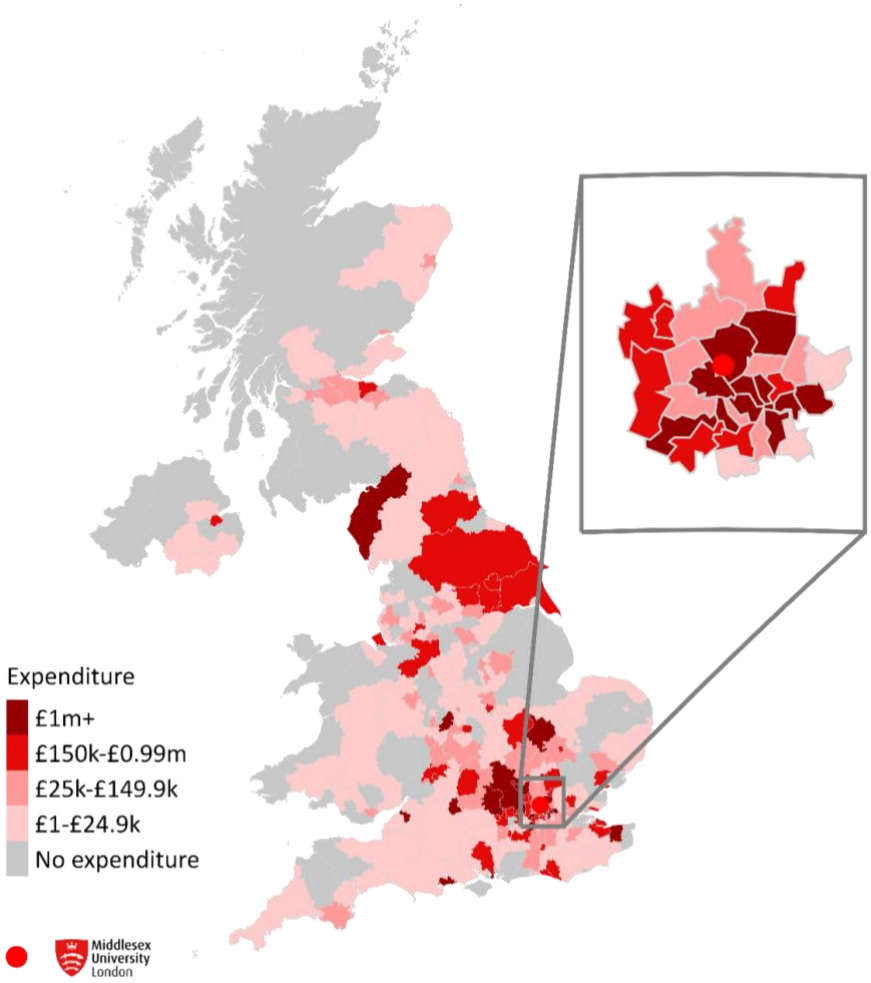
[71] This is slightly larger than the above *net* tuition fee income associated with international students in the 2023-24 cohort (£59.8 million; see Section 4), as the value deducted here relates to the University's *gross* international fee income *before* the deduction of the University fee waiver/bursary costs associated with these students (since these costs are already deducted when estimating the impact of the University's educational exports).

5.1.3 The University's geographical footprint

In addition to these total expenditures, we investigated the **geographical breakdown** of Middlesex University's procurement expenditures, staff salary expenditures and number of staff to demonstrate the University's impact in North and West London and the rest of the UK.

Figure 18 presents the distribution of Middlesex University's UK procurement expenditure (based on invoice data for 2023-24) by Local Authority. The map illustrates a concentration of procurement expenditure in **London**, with approximately half (**49%, £41.7 million**) of the University's procurement expenditure taking place in the city. Of this, **£24.4 million** (**29%**) occurred in North and West London specifically, with particularly large levels of expenditure in the London boroughs of **Enfield** (**£6.8 million, 8%**), **Hammersmith and Fulham** (**£6.6 million, 8%**), **Barnet** (**£5.2 million, 6%**), and **Brent** (**£3.4 million, 4%**).

Figure 18 Distribution of Middlesex University's procurement expenditure in the 2023-24 academic year by Local Authority (of invoice address)

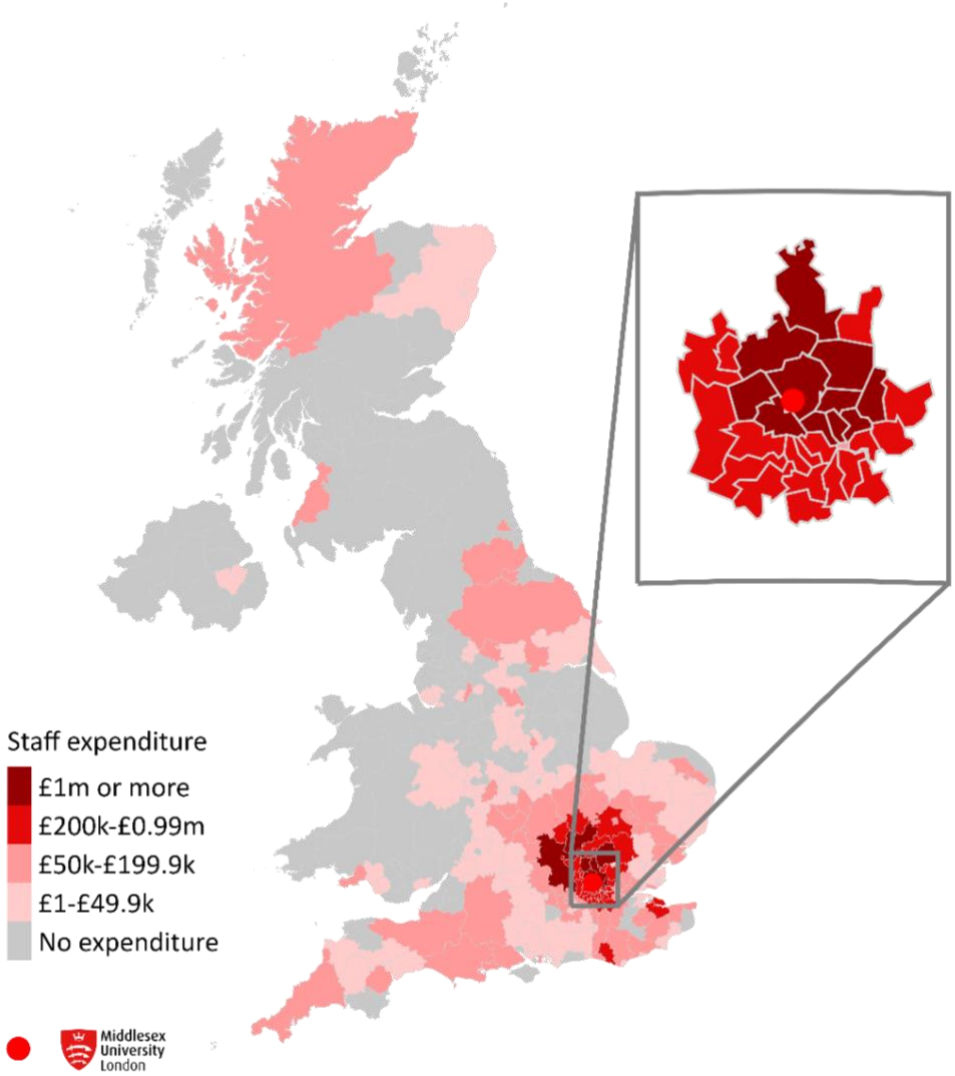


Note: We received data on the postcodes associated with £136.6 million of procurement expenditure (excluding negative values) from Middlesex University. Of this total, we excluded expenditure records from outside of the UK or with an invalid postcode (associated with £51.7 million of expenditure). As a result of these exclusions, the figure is based on a total of £84.9 million of procurement expenditure. Totals may not add up precisely due to rounding.

Source: London Economics' analysis based on data from Middlesex University, and the Office for National Statistics. Contains National Statistics, OS, Royal Mail, Gridlink, ONS, NISRA, NRS and Ordnance Survey data © Crown copyright and database right 2025.

In addition, Figure 19 and Figure 20 illustrate the distribution of the University's staff expenditure and staff headcount by Local Authority (based on the postcode of employees' home addresses) in 2023-24. As expected, the maps show a particularly strong concentration of staff in the University's local area, with approximately **44%** of the University's staff living in **North or West London** and **65%** of the University's staff living in **London** as a whole. In total, the University spent **42%** of its total salary expenditure on staff living in **North or West London** in 2023-24, equating to **£28.8 million**, and **62%** (**£42.8 million**) in London overall. Within North and West London, staff were particularly concentrated in the London boroughs of **Barnet** (**245**, **16%**), **Enfield** (**140**, **10%**), **Brent** (**70**, **5%**) and **Haringey** (**55**, **4%**).

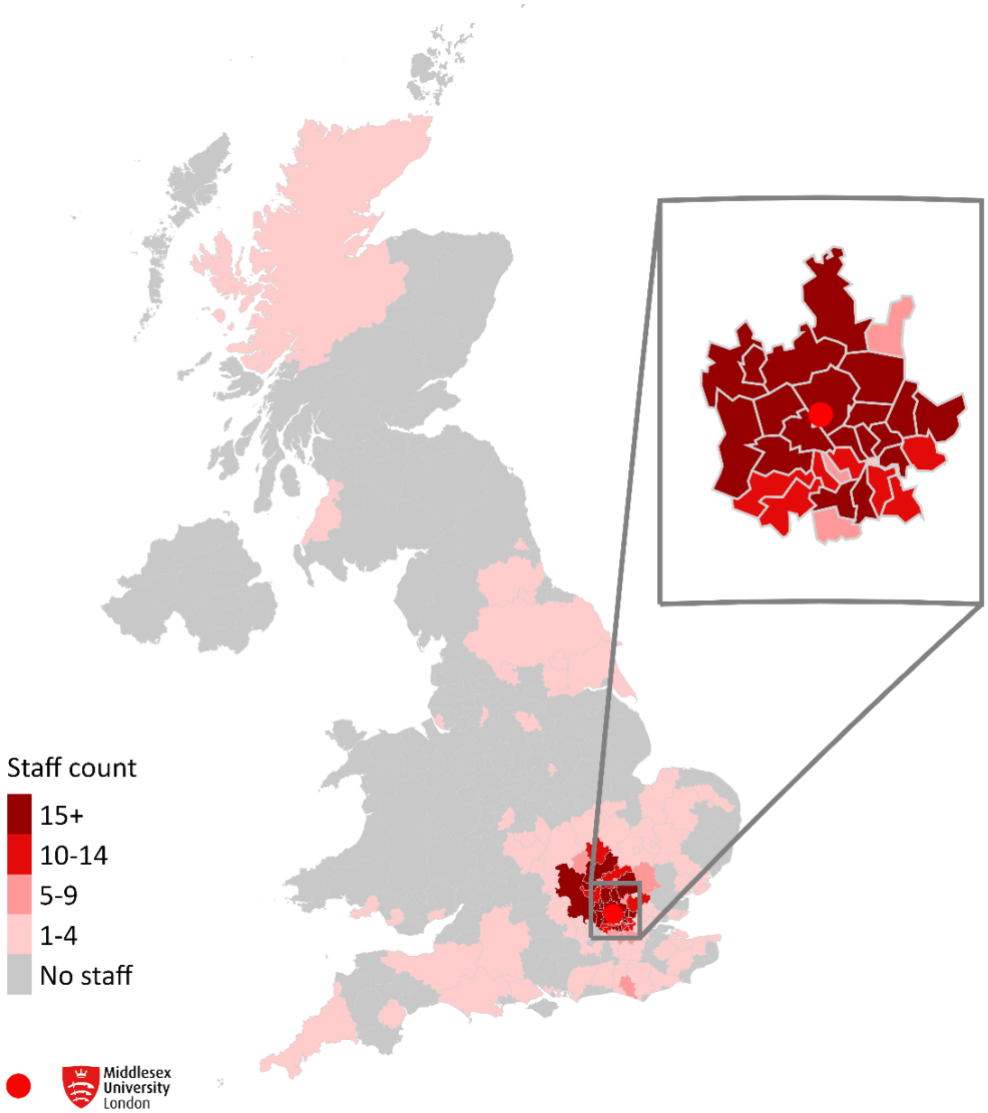
Figure 19 Distribution of Middlesex University's staff salary expenditure by Local Authority (of home address) in the 2023-24 academic year



Note: We received data on the home address postcodes associated with £70.5 million of staff expenditure by Middlesex University. Of this total, we excluded expenditure records from outside of the UK or with an invalid or missing postcode (associated with £1.6 million of expenditure). As a result of these exclusions, the figure is based on a total of £68.9 million of staff expenditure. Totals may not add up precisely due to rounding.

Source: London Economics' analysis based on data from Middlesex University, and the Office for National Statistics. Contains National Statistics, OS, Royal Mail, Gridlink, ONS, NISRA, NRS and Ordnance Survey data © Crown copyright and database right 2025.

Figure 20 Distribution of Middlesex University's staff (in headcount) by Local Authority (of home address) in the 2023-24 academic year



Note: We received data on the home address postcode for a total of 1,510 staff (in headcount terms) from Middlesex University. Of this total, we excluded staff records with missing or invalid postcodes (35 in total). The figure is thus based on the home addresses of 1,475 staff. Totals may not add up precisely due to rounding.

Source: London Economics' analysis based on data from Middlesex University, and the Office for National Statistics. Contains National Statistics, OS, Royal Mail, Gridlink, ONS, NISRA, NRS and Ordnance Survey data © Crown copyright and database right 2025.

5.2 Indirect and induced impacts of the University's expenditures

As with the economic impact of Middlesex University's research and knowledge exchange activities (see Section 2) and educational exports (see Section 4), the assessment of the indirect and induced economic impacts associated with the expenditures of the University is based on economic multipliers derived from the above-discussed multi-regional Input-Output model.[72] We applied the estimated average economic multipliers associated with organisations

[72] See Annex A2.1 for more information.

in Outer London – West and North West's government, health, and education sector, which mirrors the approach used to assess the impact of the University's international tuition fee income and the income derived from its research and knowledge exchange activities, since this income was accrued (and subsequently spent) by Middlesex University itself. Again, this approach asserts that the spending patterns of the University reflect the average spending patterns across organisations operating in Outer London – West and North West's government, health, and education sector. These multipliers (for the impact on Outer London – West and North West, London and the UK economy as a whole) are presented in Table 9 and are applied to the **net direct impact** of Middlesex University's expenditures of **£132.1 million**.

Table 9 Economic multipliers associated with Middlesex University's spending

Location of impact and type of income	Output	GVA	FTE employment
Outer London - West and North West	1.22	1.19	1.13
London	1.67	1.60	1.37
Total UK	**2.00**	**1.86**	**1.57**

Note: All multipliers constitute Type II multipliers, defined as [Direct + indirect + induced impact]/[Direct impact].
Source: London Economics' analysis

5.3 Aggregate impact of Middlesex University's spending

Table 10 presents the estimated total direct, indirect, and induced impacts associated with the expenditures incurred by Middlesex University in the 2023-24 academic year (after the above-described adjustments have been made). The aggregate impact of these expenditures was estimated at approximately **£264.7 million** in economic output terms.

The impact of Middlesex University's expenditure on the UK economy in 2023-24 stood at £264.7 million.

In terms of region, the majority of this impact (**£161.8 million, 61%**) was generated in **Outer London – West and North West**, with an additional **£58.5 million** (**22%**) generated through the rest of London, and the remaining **£44.4 million** (**17%**) occurring in **other regions** across the UK.

In terms of the number of jobs supported (in FTE), the results indicate that Middlesex University's spending supported a total of **1,240** FTE jobs across the UK economy in the 2023-24 academic year (of which **890** were located in Outer London – West and North West). In addition, the impact in terms of gross value added was estimated at **£131.8 million** across the UK economy as a whole (with **£84.7 million** accrued within Outer London – West and North West).

Table 10 Economic impact associated with Middlesex University's institutional expenditures in 2023-24

Type of impact	Output, £m	GVA, £m	FTE employment
Outer London - West and North West	£161.8m	£84.7m	890
London	£220.2m	£113.1m	1,075
Total UK	**£264.7m**	**£131.8m**	**1,240**

Note: All monetary values are presented in 2023-24 prices and rounded to the nearest £0.1 million. The employment figures are rounded to the nearest 5.
Source: London Economics' analysis

Case Study – Bringing the Community Together

In diverse communities, building understanding and dialogue is essential for community cohesion, particularly during times of tension and conflict. Middlesex University's staff-led **Inter Faith Network** (IFN) works with local faith and community leaders to promote this dialogue among students and local people in Barnet. The University's Hendon campus serves a diverse community, with over 60% of students who identify as BAME, and is in an area of London home to Europe's largest Jewish community. Each year, the IFN runs events that reach more than 1,000 people in the local area.

The IFN works to bring people together during challenging times, including the **Together for Humanity peace vigil** to mourn victims of the Israel-Gaza conflict and stand against hate. More than 200 people, including staff, students, residents, and school children, listened to talks from faith and community leaders that showed people have more in common than that which divides them. The IFN won the **Alliance Award** at the University Alliance Awards 2024 for their work with Barnet's diverse communities.

The IFN's work takes many forms throughout the year. Through the network, Middlesex hosts events such as the Big Iftar, Diwali the Hindu festival of lights, a national Islamophobia Awareness Month exhibition, and co-organises Peace Walks that bring people of different faiths together to explore each other's places of worship.

The IFN's community work extends to partnerships with local organisations. The University supports Barnet Council in hosting the annual **Holocaust Memorial Day ceremony** at its Hendon campus. The IFN has also supported **Barnet's Multi Faith Forum**, a focus for different faith groups in the borough, and the **Dialogue Society**, a charity that aims to foster understanding. Together they created a local **Sukkot Shalom** gathering, marking the Jewish festival. This was hosted jointly with Finchley Reform Synagogue, with 50 guests including the University's Vice-Chancellor Professor Shân Wareing, who took part in valuable discussions on investing in relationships for empathy, support and understanding.

During Inter Faith Week in 2025, the group co-organised a **Climate Freskival** on campus to celebrate the 20th anniversary of Mitzvah Day, a faith-led day of social action based on Jewish values, combined with raising awareness of climate change. This was followed by **Noah's Pudding**, an interfaith event to promote unity and understanding through the sharing of a traditional Islamic symbolic dessert.

The total economic impact of Middlesex University on the UK economy in 2023-24

6

6 The total economic impact of Middlesex University on the UK economy in 2023-24

6.1 Aggregate impact

Combining all of the above strands of impact, the total economic impact on the UK economy associated with Middlesex University's activities in the 2023-24 academic year was estimated at approximately **£994.3 million** (see Table 11). In terms of the components of this impact:

- The University's **teaching and learning activities** accounted for **£394.7 million** (**40%**) of this impact.
- The economic impact of the University's **research and knowledge exchange activities** stood at **£54.1 million** (**5%**).
- The impact associated with the University's **international students** was estimated at **£280.9 million** (**28%**).
- The impact generated by the **operating and capital expenditures** of the University stood at **£264.7 million** (**27%**).

The total economic impact associated with Middlesex University's activities in 2023-24 stood at £994.3 million.

Table 11 Total economic impact of Middlesex University's activities on the UK in 2023-24 (£m and % of total)

Type of impact		£m	%
	**Impact of research and knowledge exchange**	**£54.1m**	**5%**
	Research activities	£37.5m	4%
	Knowledge exchange activities	£16.7m	2%
	**Impact of teaching and learning**	**£394.7m**	**40%**
	Students	£189.7m	19%
	Exchequer	£204.9m	21%
	**Impact of international students**	**£280.9m**	**28%**
	Tuition fee income	£119.9m	12%
	Non-tuition fee income	£160.9m	16%
	**Impact of the University's spending**	**£264.7m**	**27%**
	Direct impact	£132.1m	13%
	Indirect and induced impact	£132.6m	13%
	Total economic impact	**£994.3m**	**100%**

Note: All estimates are presented in 2023-24 prices, rounded to the nearest £0.1m, and may not add up precisely to the totals indicated. ***Source: London Economics' analysis***

Compared to Middlesex University's relevant operating costs of approximately **£208.6 million** in 2023-24,[73] the total impact of the University's activities on the UK economy was estimated at **£994.3 million**, which corresponds to a **benefit-to-cost ratio of approximately 4.8:1**.

6.2 Putting the University's impacts into context

To place these findings into context, we provide comparisons of Middlesex University's economic impact to other government interventions.

Firstly, in its framework for economic evaluation guidance, TASO (which is funded by the Office for Students)[74] indicates that **a benefit-to-cost ratio greater than or equal to 4 would be considered to be delivering 'very high' value for money**.[75] As such, according to this wider benchmark used by the UK Central Government, Middlesex University's activities generate very high levels of value for money.

To further contextualise the findings, given Middlesex University's reliance on public funding to deliver its activities, it is important to also consider the potential impact that might be achieved with alternative uses of public funding. Therefore, we undertook an **analysis of the costs and benefits associated with almost 600 UK government regulatory impact assessments**, in order to compare the return on investment (measured using the benefit-to-cost ratio) associated with these alternative publicly funded government interventions with that of the University.[76]

Table 12 presents summary results for the benefit-cost ratio and total benefit across this wide range of regulatory impact assessments. The median economic benefit across all of these government programmes/projects stands at **£65 million**, with a median benefit-to-cost ratio of **1.8**. In comparison, Middlesex University's activities generate an estimated economic benefit of **£994.3 million**, with a benefit-to-cost ratio of **4.8**. In addition, Figure 21 plots the benefit-to-cost ratio and total benefit for each of the almost 600 regulatory impact assessments, alongside the equivalent metrics for Middlesex University. Relative to other government interventions, the University is located in the top right-hand quadrant of the chart, indicating both **relatively large economic benefits for the UK economy and a relatively high return on investment** (i.e. benefit-to-cost ratio).

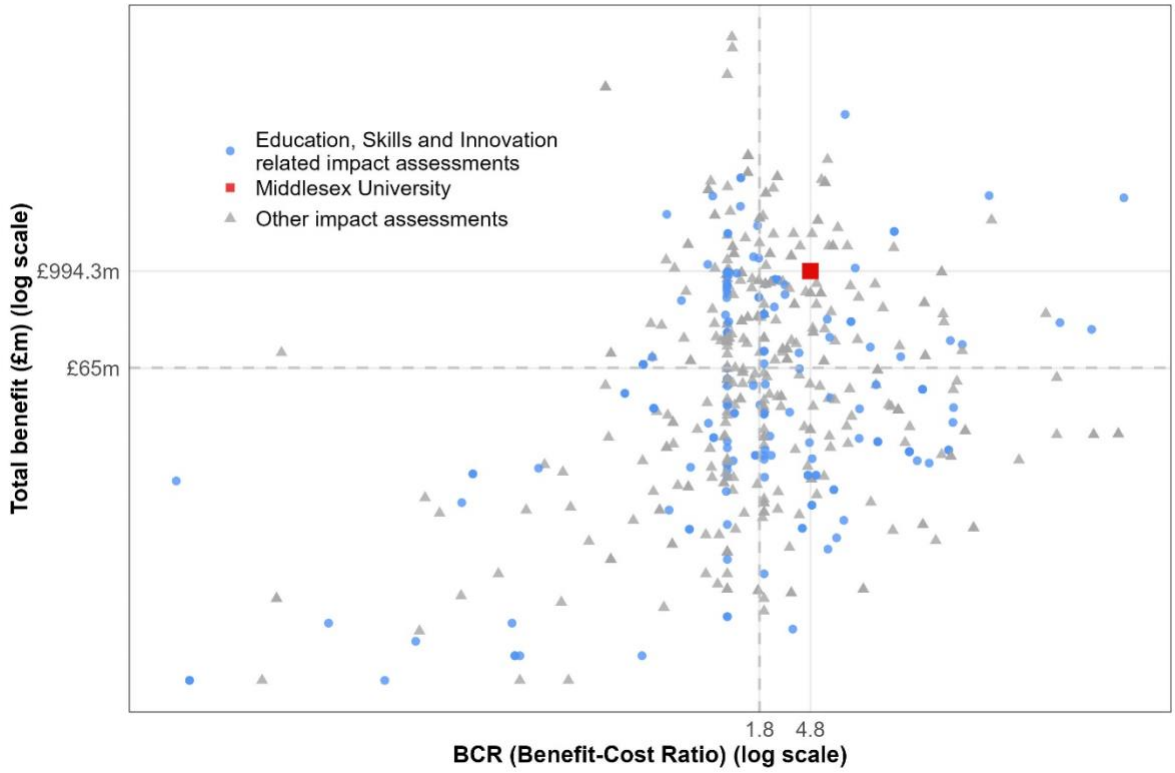
[73] This relates to the University's total operating expenditure, excluding capital expenditure, depreciation and amortisation.
[74] See Transforming Access and Student Outcomes in Higher Education (TASO, 2024).
[75] Based on value for money (VfM) categories used by the Ministry of Housing, Communities and Local Government's appraisal guide (see Ministry of Housing, Communities and Local Government (2025), Section 3.57). As acknowledged by TASO, these categories should only be considered as example categories, since the range of benefit-to-cost ratios associated with each category can vary across different sectors.
[76] Estimates of the total economic benefit and total economic costs were web-scraped from the individual regulatory impact assessments published by a number of UK government departments and public sector agencies (including the Cabinet Office; the Department for Business, Energy & Industrial Strategy; the Department for Business, Innovation and Skills; the Department for Digital, Culture, Media & Sport; the Department for Education; the Department for International Trade; the Department for Transport; the Department of Energy and Climate Change; the Department of Health & Social Care; the Education Funding Agency; the Highways Agency; HM Revenue and Customs; HM Treasury; the Ministry of Defence; and the Office of Communications). In total, 579 regulatory impact assessments published on the UK government's website (https://www.legislation.gov.uk/ukia?stage=Final) between 2010 and 2022 were identified as being machine readable and containing non-missing best estimates for total costs and total benefits (thereby allowing for the calculation of a benefit-to-cost ratio).

Table 12 Comparison with benefit-to-cost ratios for UK government interventions

Measure	Minimum	Median	Maximum
Benefit-to-cost ratio	0	1.8	1,772.7
Total benefit	£0.01m	£65m	£528,122m

Note: Based on a total of 579 UK government regulatory impact assessments published between 2010 and 2022.
Source: London Economics' analysis of published UK government regulatory impact assessments (www.legislation.gov.uk/ukia?stage=Final)

Figure 21 Comparison with benefit-to-cost ratios for UK government interventions



Note: Based on a total of 579 UK government regulatory impact assessments published between 2010 and 2022. Total benefits and BCRs are depicted on a logarithmic scale. Quadrants are marked using dotted lines at the *median*, such that half of the points sit to the left and right of the line BCR = 1.8 and half the points sit above and below the line Total benefits = £65m.
Source: London Economics' analysis of published UK government regulatory impact assessments (www.legislation.gov.uk/ukia?stage=Final)

Case Study – Powering the Public Sector

The public sector has been among the main drivers of workforce growth in London since the pandemic, reflecting demand for improved public service delivery. Health and social work, for instance, is the capital's second biggest employment sector behind professional services, growing from 9.9% to 10.8% of workforce share between 2019 and 2024.

Middlesex has built on a proud tradition of training teachers and nurses to become a crucial part of the talent pipeline for public services. The University is currently educating more than 1,500 student nurses and midwives, 400 trainee social workers and 275 trainee teachers.

The Faculty of Health and Education has extensive connections with providers in London and beyond. The University's **Department of Mental Health and Social Work** partners with the **North London NHS Foundation Trust** and is linked to a wider ecosystem of non-statutory social enterprises and service user networks. Meanwhile, Middlesex's education academics work in partnership with more than 500 schools, colleges and settings.

Middlesex also makes a significant contribution to the public sector workforce through **apprenticeships**. The University was awarded funding in 2017 to develop degree apprenticeships which would enable people from diverse backgrounds to enter the nursing, social work, teaching and policing professions. Building on this, the University received more than £3.5 million from the Office for Students to lead a **Healthcare Education Consortium**, with six other universities, to expand healthcare degree apprenticeships. Additional funding has supported the development of a Teacher Degree Apprenticeship that better matches schools' needs.

The **Police Education Consortium**, made up of Middlesex and three other universities, has trained more than 3,300 student officer recruits since 2019. The Consortium agreed new contracts with **Surrey Police**, **Sussex Police** and **Thames Valley Police** last year. Middlesex is also part of a £12 million programme to develop and provide degree apprenticeships for social workers and environmental health practitioners, addressing a critical shortage in London and the South East.

Supporting this training, Middlesex's facilities include a **state-of-the-art virtual hospital** opened in 2022 in the West Stand of **Saracens' StoneX stadium**. The site includes simulation wards with Augmented Reality technology for nursing and midwifery students to an immersive learning environment to practice realistic emergency situations and hospital scenarios.

The quality of Middlesex's public sector training has been widely recognised, including a **Trailblazer Award** at the **London Maternity and Midwifery Festival**, a commendation for work upskilling adult social care nurses in care homes and an Outstanding rating from Ofsted for the teaching apprenticeship programme for secondary age groups.

6.3 Total impact by region and sector (where available)

In addition to the above total impact on the UK economy as a whole, it was possible to disaggregate *part* of the University's economic impact by sector and region (and estimate the impacts in terms of economic output *as well as* GVA and FTE employment). The strands of impact for which this disaggregation was achievable include:

- The direct, indirect and induced impact of the University's **research activities** (**£11.7 million**, see Section 2.1).[77]
- The impact of the University's **knowledge exchange activities** (estimated at **£16.7 million**, see Section 2.2).
- The impact of the University's **educational exports** (**£280.9 million**, see Section 4).
- The impact associated with the University's **operating and capital expenditures** (**£264.7 million**, see Section 5).

Hence, approximately **£573.9 million** (**58%**) of Middlesex University's total economic impact of **£994.3 million** can be disaggregated in this way.[78]

In terms of the breakdown by region (see Figure 22), the analysis indicates that of this total of **£573.9 million**, approximately **£357.0 million** (**62%**) occurred in **Outer London - West and North West**, with **£126.1 million** (**22%**) occurring in the **rest of London**, and the remaining **£90.8 million** (**16%**) taking place in **other regions** across the UK.

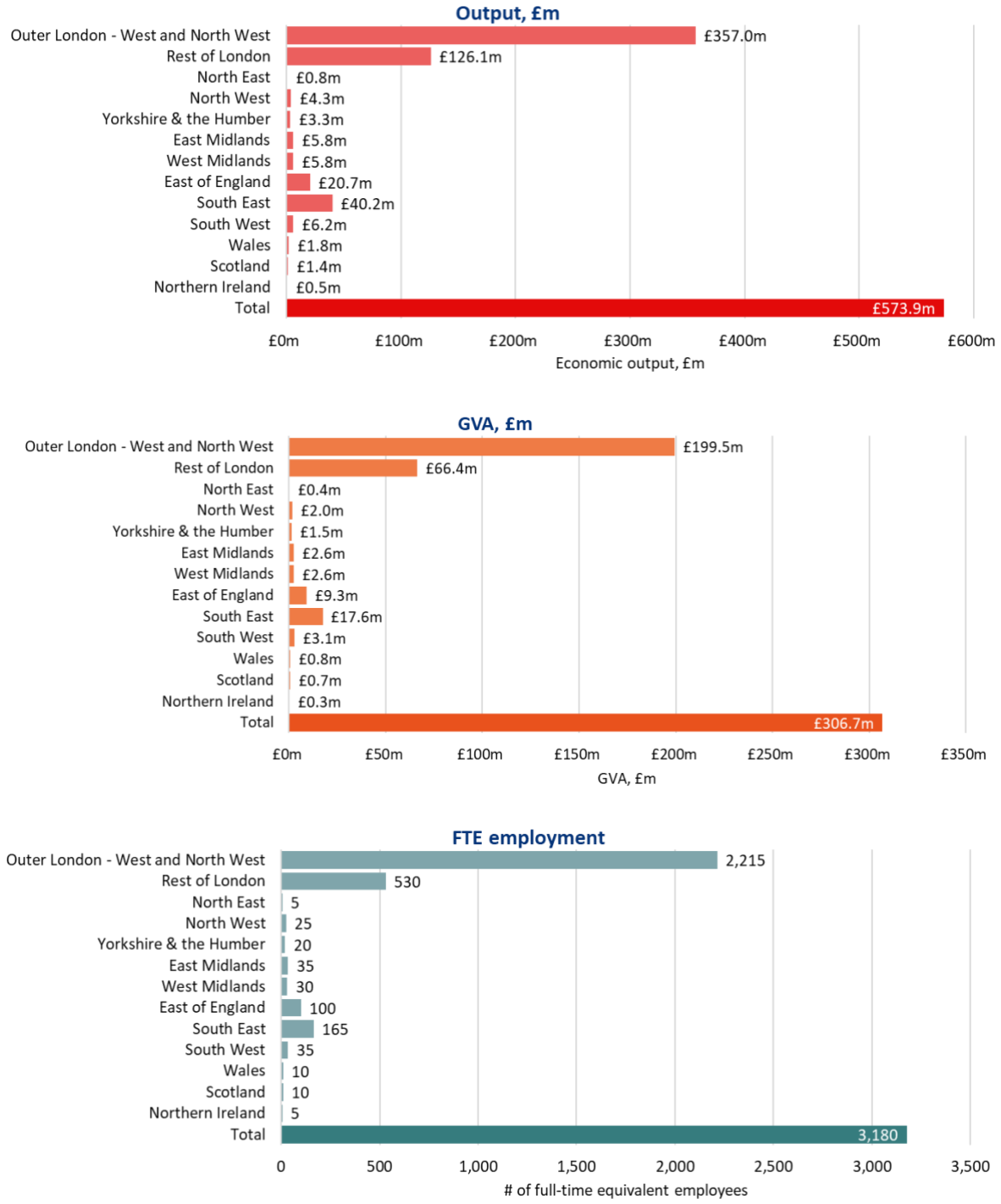
In terms of sector (see Figure 23), the University's activities resulted in particularly large impacts within the **government, health, and education sector** (**£233.6 million**, **41%**), the **distribution, transport, hotel, and restaurant sector** (**£85.7 million**, **15%**), the **production sector** (**£66.7 million**, **12%**), and the **real estate sector** (**£56.9 million**, **10%**).

In terms of the number of FTE jobs supported, the results indicate that the University's activities in 2023-24 (where available/identifiable at a regional level) supported a total of **3,180** FTE jobs across the UK economy, with **2,215** of these jobs located in **Outer London - West and North West**, and a further **530** supported in the **rest of London**. In addition, the impact in terms of gross value added was estimated at **£306.7 million** across the UK economy as a whole, of which **£199.5 million** was generated in **Outer London - West and North West**, and an additional **£66.4 million** was generated in the **rest of London**.

[77] Note that this excludes the productivity spillovers associated with the University's research activities, as these cannot be attributed to a region or sector.

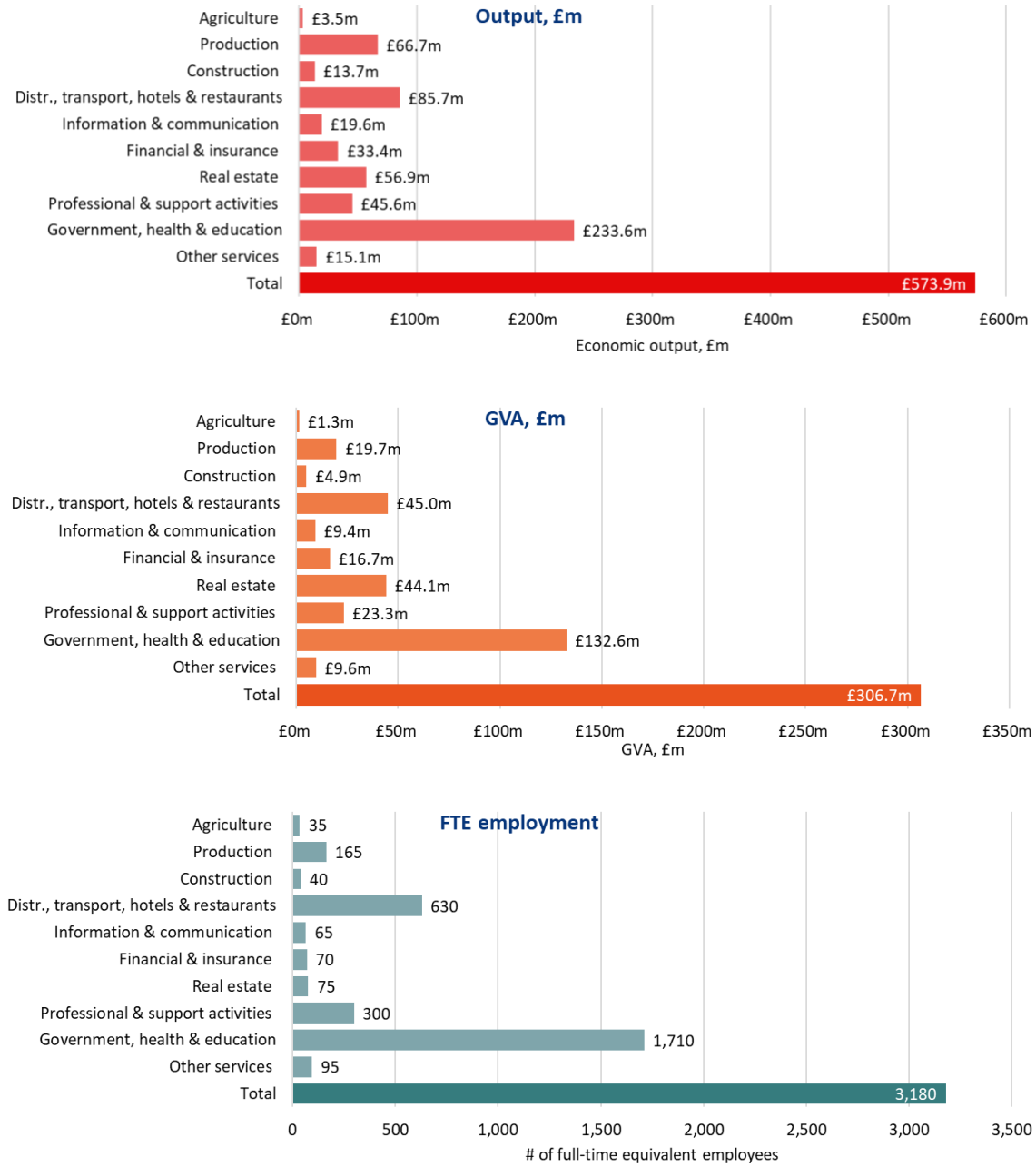
[78] The remaining **£420.5 million** of impact includes the productivity spillovers associated with the University's research (**£25.8 million**, where a breakdown by region or sector is not available as it was not possible to assign the geographic location or sectors of businesses benefiting from the productivity spillovers generated by the University's research); and the impact of **teaching and learning activities** (**£394.7 million**, where a breakdown by region or sector is not available due to graduate mobility (i.e. it is very difficult to determine the region/sector of employment that the University's graduates end up in)).

Figure 22 Total economic impact associated with the University's activities in 2023-24, by region (where identifiable)



Note: Monetary estimates are presented in 2023-24 prices, discounted to reflect net present values (where applicable), rounded to the nearest £0.1 million, and may not add up precisely to the totals indicated. Employment estimates are rounded to the nearest 5, and again may not add up precisely to the totals indicated. The figure only contains the **£573.9 million** (of the University's total **£994.3 million** (in economic output terms)) of economic impact that can be attributed to a region.
Source: London Economics' analysis

Figure 23 Total economic impact associated with the University's activities in 2023-24, by sector (where identifiable)



Note: Monetary estimates are presented in 2023-24 prices, discounted to reflect net present values (where applicable), rounded to the nearest £0.1 million, and may not add up precisely to the totals indicated. Employment estimates are rounded to the nearest 5, and again may not add up precisely to the totals indicated. The figure only contains the **£573.9 million** (of the University's total **£994.3 million** (in economic output terms)) of economic impact that can be attributed to a sector.
Source: London Economics' analysis

The impact of Middlesex University's civic engagement activities

7

7 The impact of Middlesex University's civic engagement activities

In this section, we provide data, insights and examples of Middlesex University's **civic engagement activities**, considered through the lens of the seven domains of civic engagement outlined in the **Civic Impact Framework** (Civic University Network, 2024). These domains are discussed in turn, and are as follows:

- Social impact;
- Environment, climate and biodiversity;
- Health and wellbeing;
- Cultural contribution;
- Economic impact;
- Estates, facilities and placemaking; and
- Institutional strategy and leadership.

Information on the University's activities in relation to these domains is collected from a wide range of sources, including published data and internal Middlesex information. Data points are supplemented where appropriate by qualitative case study examples.

7.1 Social Impact

Key Question: How does the University bridge and reduce social divides and improve the quality of life of our communities including the most disadvantaged?

Higher education transforms lives – yet many people face barriers that prevent them from reaching their potential. Middlesex University is working to change this, with opportunities for students from all backgrounds to access higher education, including **many from North or West London** who made up **two-fifths** (**1,875**) of Middlesex's first year students living in the UK in 2023/24 (See Section 3.1).

The University's commitment to widening participation is shown in the backgrounds of the students it serves. Research for its Access and Participation Plan,[79] required by the Office for Students, shows that **98%** of Middlesex University's students belong to groups that typically face extra challenges in accessing higher education, completing their studies and achieving their potential. This includes students from ethnic minority backgrounds, low-income areas, those who are first in their family to go to university, students with mental health conditions, and young men.

[79] https://www.officeforstudents.org.uk/for-providers/equality-of-opportunity/search-for-access-and-participation-plans/#/AccessPlans/provider/10004351.

Middlesex University's work has gained international recognition, with Middlesex ranked **8th among higher education providers worldwide** for Reduced Inequalities under the United Nations' Sustainable Development Goal 10 in 2025.[80]

The University's apprenticeship programmes have also proven an effective driver for social mobility. Middlesex University currently has **1,445** apprentices enrolled on **16** apprenticeship programmes, with **38%** of apprentices being **from the first generation in their families** to access higher education. As **58%** of Middlesex University apprentices are aged 25 or over, apprenticeships are also a **valuable pathway for mature students** seeking to upskill or change careers.[81]

7.2 Environmental Impact

Key Question: How does the University play a leading role in mitigating and adapting to climate change, reversing biodiversity loss, and educating students for sustainability?

As climate change reshapes communities, universities can equip the next generation to build a sustainable future. Middlesex University students learn through real-world practice, with environmental sustainability and the United Nations' Sustainable Development Goals (SDGs) embedded in their learning. The University's campus is a living example, featuring 110m^2 of green walls, hedgehog, bird and bat habitats, and bee colonies where 140,000 bees produce up to 150 jars of honey annually. Students gain practical sustainability skills that they take into their careers, including across North London's growing green economy.

This commitment was recognised in February 2025 when the University achieved reaccreditation of its **EcoCampus Platinum/ISO 14001 Award** from EcoCampus, the Environmental Management System for higher and further education.

Building on this foundation, **Middlesex's Climate Action Plan 2025** pledges to achieve Net Zero carbon emissions by 2040. The University currently ranks in the **top 20% of London HEPs for the lowest carbon emissions per student.**[82] Since 2018/19, it has **decreased its Total Scope 1 & 2 Carbon Emissions by over 28%**, aiming to reach 40% by 2027. The University's efforts include generating low carbon electricity through combined heat and power units and zero carbon electricity through solar voltaic panels.

[80] https://www.timeshighereducation.com/impactrankings.
[81] Based on internal Middlesex University data.
[82] London Economics' analysis based on HESA (2025d) and HESA (2025e).

7.3 Health and Wellbeing Impact

Key Question: How does the University support the health and wellbeing of our communities?

7.3.1 Providing trained professionals for the health and care sector

A shortage of skilled professionals across public sector services affects everyone - from people who rely on essential care to the staff working to meet growing demands. Middlesex University plays a vital role in addressing these pressures, training nurses, midwives, and social workers across North and West London.

Every year, **Middlesex trains around 1,750 nurses and midwives**,[83] equipping them with the skills and experience needed to support the NHS and local communities. The University also delivers **hundreds of apprenticeships** that meet critical workforce shortages and upskill existing NHS professionals, such as healthcare assistants.

Apprentices who began nursing and other healthcare programmes in 2023–24 will collectively contribute over **400,000 hours of work to the public sector in London** during their training. More than **150,000** of these hours will directly benefit organisations in **North and West London** — including 80,000 hours in Enfield, 50,000 in Haringey, and 10,000 in Barnet.

Beyond apprenticeships, Middlesex students undertaking nursing and related degrees dedicated over **700,000 hours to public sector placements in 2023-24**, with approximately 290,000 hours completed in North and West London alone. These contributions not only support local health services but also strengthen wellbeing and community resilience across the region.

7.3.2 Transformational police education that builds community trust

Trust in policing is essential for community safety and cohesion. Police education and training play a critical role in raising professional standards, ensuring officers have the skills and values needed to deliver fair, ethical, and community-focused policing.

Middlesex University leads the Police Education Consortium, which has **trained over 3,300 Police Constables since 2019** working with four police

[83] Based on internal Middlesex University data.

forces in the South East region. The University was awarded Best Apprenticeship Programme in Public Services for its Police Constable degree apprenticeship (PCDA) in 2024. In 2023-24, the University had over 150 police apprenticeship starters, who will contribute over 700,000 work hours to the public sector during the course of their apprenticeship.[84]

7.4 Cultural Impact

Key Question: How does the University celebrate and enrich the cultural life of our communities?

7.4.1 Heart of the Community

Stronger communities are often built through shared cultural experiences and understanding. Middlesex University works with local people to make North London a more inspiring place to live, using culture to create cohesion in diverse communities.

The **University's cultural programme** marks key dates in the London Borough of Barnet's civic calendar as well as interfaith community events. For many years, Middlesex University has supported the Borough in hosting its annual **Holocaust Memorial Day Ceremony** as an act of remembrance. They also organise a **'Big Iftar'** celebration during Ramadan and events to mark the Hindu celebration of **Diwali**.

Another significant inclusion and wellbeing initiative is the **Windrush Stories Exhibition**, created in collaboration with the **Barnet African and Caribbean Association** and Barnet Council. The exhibition sheds light on the borough's hidden Black history through videos of interviews filmed by Middlesex students and Windrush art and carnival costumes, preserving stories that might otherwise be lost.

Throughout the year Middlesex opens its doors to the public for free talks and lectures, including the annual **Malcolm Sergeant memorial law lecture** and a **Christmas STEM lecture**. These events bring academic expertise to a wider audience, strengthening the connection between the University and its communities.

[84] Based on internal Middlesex data.

7.4.2 Changing the culture

The rise of online misogyny and masculinity influencers have left boys and young men navigating an increasingly complicated cultural environment. Middlesex University is tackling these problems through a programme of engagement with schools and local community groups.

The University's **Changing the Culture initiative** educates, empowers and inspires students to participate in social justice and inclusion projects. For Changing the Culture, arts and creative industries students developed educational materials on the dangers of online misogyny and violence against women and girls for different groups, including school pupils. They used these materials to deliver a series of workshops with local schools and created student-made educational films that continue to be used in classrooms.

Middlesex Graphic Design students produced artwork titled **See the Unseen**, encouraging the public to challenge hidden forms of misogyny. In partnership with the London Borough of Barnet, these posters were displayed in local bus stops as part of a borough-wide information campaign.

Students have also created campaigns to tackle street harassment and sexism on gaming platforms. Their films and artwork form a series of annual exhibitions, visited by local community leaders, parliamentarians and the public. Through this work, Middlesex students learn about social justice while actively shaping conversations and driving change in their communities.

7.5 Economic Impact

Key Question: How does the University support creating more prosperous communities and reduce economic inequity?

Universities' contributions to sustaining a strong local economy involves connecting students with employers and supporting career development. Middlesex University plays an important role in its region by **maximising local employment opportunities**, forging employer partnerships and by preparing graduates for the workplace.

The University's activities supported **2,215 FTE jobs** in Outer London – West and North West in 2023-24 (see Section 6.3). Through the range of activities considered throughout this report, this shows that Middlesex University helps to maintain a substantial level of employment in the local area, contributing to additional economic activity and supporting local businesses.

The University directly supports local employers through apprenticeship training, with a **network of over 450 employer partners**. These partnerships benefit learners, employers and the local economy, creating a skilled workforce while allowing employees to earn as they learn.

It also connects local business with students through **Gradstock**, the university's flagship careers festival. This is an event which offers students the chance to connect with employers and gain insights for successful post-graduate careers. **More than 60 organisations and businesses exhibited in 2025**, demonstrating strong employer demand for Middlesex students and graduates.

Middlesex students make a significant contribution to the local economy during their studies, fulfilling many part-time roles both on and off campus. Since its creation in 2017, Middlesex's **Unitemps employment agency** has supported student employment by helping to fill 22,000 roles, with students providing local employers with around 900,000 hours of work.

A dedicated careers and employment service, **MDXWorks**, supports these connections. It provides students with work experience placements and over 50 industry-specific internships ever year, as well as CV and application feedback, career fairs and networking opportunities. Even after graduation, alumni retain lifetime access to these employment services.

The breadth and strength of these activities led Middlesex to be placed **first** amongst UK universities for **employability** in the **UniCompare Rankings** for 2026.[85]

7.6 Estates and Facilities Impact

Key Question: How are the University's estates and facilities used for the benefit of the whole community?

Public spaces where communities can connect and access support are increasingly valuable, particularly for people experiencing isolation and economic pressures. Middlesex University views its campus as a community asset - home to the university but open to everyone.

The Quadrangle and **Grove Building** serve as welcoming and accessible meeting places for local people, with affordable cafes and restaurants. The Quadrangle is also a registered warm space, providing a refuge and social hub for those on lower incomes.

The University hosts activities supporting the region's older residents. **Dance for Joy**, a free dance event for older people hosted and supported by the University, promotes health and wellbeing, as well as tackling loneliness. Middlesex has also partnered with Age UK to host an **annual Silver Sunday event**, offering a free programme of dance and musical performances, advice on medical and legal topics (including from Middlesex academics) alongside free meals

[85] https://universitycompare.com/rankings/career-opportunities.

and refreshments. Previous years have attracted over 800 residents, making it the largest Silver Sunday event in the country.

Beyond social programmes, the University has opened its **sports facilities** for community use, including its gym, a Royal Tennis court and basketball courts. Further, **Grove Park** is popular with Hendon residents.

Through these initiatives, Middlesex demonstrates how campuses can serve not just students but also benefit a wider population.

7.7 Leadership Impact

How does the University's strategic leadership demonstrate our civic commitment to the communities we serve?

Middlesex University's commitment to act as a **civic institution**, which supports and uplifts its local community, makes up a core part of its identity. Not only is this commitment embedded within the university's long-term strategy, but its importance is reflected in its corporate structure.

To ensure the strength and breadth of its local connections, the University has created a dedicated **Business and Civic Engagement directorate**. The establishment of this new directorate provides a clear leadership focus, ensuring effective collaboration with employers, civic organisations and education providers. This in turn enables Middlesex to provide accessible, skills-focused, lifelong learning opportunities that are specifically designed to serve local, regional and national economic needs.

By embracing its role as an anchor institution, dedicated to meeting the education and skills needs of the communities it serves and fostering pride in place through civic collaboration and economic renewal, Middlesex is fulfilling its mission to support and sustain its local region, through education and knowledge exchange.

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Annex 2 Technical annex

A2.1 Multi-regional Input-Output tables

A2.1.1 Derivation of economic multipliers from multi-regional Input-Output tables

This section provides further detail on the economic multipliers utilised in this analysis, as first introduced in Section 2.1.3. The economic multipliers are calculated based on the UK's 41 International Territorial Level 2 (ITL2) regions.[86]

The multi-regional Input-Output analysis is undertaken by 'regionalising' UK Input-Output tables for 2019 (see Office for National Statistics (2023d)). This technique relies on the assumption that there is 'common technology' (i.e. identical input structures) across all regions. In other words, for each unit of output produced by a sector, the analysis assumes that the same number of units of input from each supplying sector are required, regardless of the region that the producing sector is located in.[87] However, a region's producing sector may not be able to source all of its required inputs from its own region's supplying sectors. The extent to which firms source production inputs from within their *own* regions is determined using Flegg Location Quotients,[88] which are based on employment data by sector and ITL2 region (see Nomis, 2023). Trade *between* different regions is then determined using a gravity model,[89] based on the distance between each of the ITL2 regions, whether regions border each other, and the size (measured in GVA) of the supplying and producing sectors (based on GVA data by sector and region (Office for National Statistics, 2023a)).

The multi-regional Input-Output analysis also relies on a wide range of other data, including data on GVA components by sector and ITL2 region (Office for National Statistics, 2023a); employment by sector and ITL2 region (Nomis, 2025); gross disposable household income by ITL2 region (Office for National Statistics, 2022c); total residents by Local Authority (converted to ITL2 regions) (Office for National Statistics, 2022b); mean weekly total paid hours worked by industry, for full-time vs. part-time employees (Office for National Statistics, 2022a); employed residents by Local Authority of usual residence and workplace (converted to ITL 2 regions) (Nomis, 2014); and UK imports into each ITL2 region and exports by each ITL2 region by sector, separately for goods and services (Office for National Statistics, 2023b and 2023c).

In terms of sector breakdown, the original UK-level Input-Output tables are broken down into 105 relatively granular sectors. However, the wide range of regional-level data required to generate the multi-regional Input-Output model is not available for such a granular sector

[86] For more information, see Office for National Statistics (2025a). The classification is based on the ITL boundaries established as of January 2021.
[87] i.e. all firms within a given industry (irrespective of their region) use the same production techniques and have the same input structures to produce their outputs. This assumption helps simplify the Input-Output analysis, by treating each industry as if it were a single, homogeneous entity.
[88] See Flegg & Tohmo (2014) and Flegg et al. (2021) for more detail on the implementation of Flegg Location Quotients. Similar location quotient techniques have been used to generate other Input-Output tables in the UK for different regions, such as for London (see GLA Economics (2019)) and the Glasgow City Region (see Hermannsson (2016)).
[89] Based on the specification and parameters given by Jahn (2016) and Jahn et al. (2020).

breakdown. Instead, the multi-regional Input-Output model is broken down into 10 more high-level sector groups (see Table 13 below).

While Input-Output analyses are a useful tool to assess the total economic impacts generated by a wide range of activities, it is important to note several key limitations associated with this type of analysis. For example:

- Input-Output analyses assume that inputs are complements, and that there are constant returns to scale in the production function (i.e. that there are no economies of scale). The interpretation of these assumptions is that the prevailing breakdown of inputs from all sectors (employees, and imports) is a good approximation of the breakdown that would prevail if total demand (and therefore output) were marginally different.
- Input-Output analyses do not account for any price effects resulting from a change in demand for a given industry/output.
- Input-Output models are 'static' in nature, in the sense that they assume fixed relationships between inputs and outputs, not accounting for changes in technology, prices, or production methods over time.
- Given the complexity of the analysis and reliance on a wide range of industry-level data, the sectors included within Input-Output models are often highly aggregated, therefore masking likely differences between different industries.
- Input-Output models typically do not account for potential supply constraints, i.e. they assume that overall supply can meet any level of demand.

A2.1.2 Industry classifications for multi-regional Input-Output analysis

Table 13 provides an overview of the high-level industry classifications used throughout the multi-regional Input-Output analysis.

Table 13 Industry grouping used as part of the multi-regional Input-Output analysis

Industries included in original UK Input-Output table	High-level industry group [and UK SIC Codes]
Crop and animal production, hunting and related service activities	Agriculture [1-3]
Forestry and logging	
Fishing and aquaculture	
Mining and quarrying	Production [5-39]
Manufacture of food products, beverages, and tobacco products	
Manufacture of textiles, wearing apparel and leather products	
Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	
Manufacture of paper and paper products	
Printing and reproduction of recorded media	
Manufacture of coke and refined petroleum products	
Manufacture of chemicals and chemical products	
Manufacture of basic pharmaceutical products and pharmaceutical preparations	
Manufacture of rubber and plastic products	
Manufacture of other non-metallic mineral products	
Manufacture of basic metals	
Manufacture of fabricated metal products, except machinery and equipment	
Manufacture of computer, electronic and optical products	

Industries included in original UK Input-Output table	High-level industry group [and UK SIC Codes]
Manufacture of electrical equipment	
Manufacture of machinery and equipment n.e.c.	
Manufacture of motor vehicles, trailers and semi-trailers	
Manufacture of other transport equipment	
Manufacture of furniture; other manufacturing	
Repair and installation of machinery and equipment	
Electricity, gas, steam, and air conditioning supply	
Water collection, treatment and supply	
Sewerage; waste collection, treatment, and disposal activities; materials recovery; remediation activities and other waste management services	
Construction	Construction [41-43]
Wholesale and retail trade and repair of motor vehicles and motorcycles	Distribution, transport, hotels, and restaurants [45-56]
Wholesale trade, except of motor vehicles and motorcycles	
Retail trade, except of motor vehicles and motorcycles	
Land transport and transport via pipelines	
Water transport	
Air transport	
Warehousing and support activities for transportation	
Postal and courier activities	
Accommodation and food service activities	
Publishing activities	Information and communication [58-63]
Motion picture, video and television programme production, sound recording and music publishing activities; programming and broadcasting activities	
Telecommunications	
Computer programming, consultancy and related activities; information service activities	
Financial service activities, except insurance and pension funding	Financial and insurance [64-66]
Insurance, reinsurance and pension funding, except compulsory social security	
Activities auxiliary to financial services and insurance activities	
Real estate activities excluding imputed rents	Real estate [68.1-2-68.3]
Imputed rents of owner-occupied dwellings	
Legal and accounting activities; activities of head offices; management consultancy activities	Professional and support activities [69.1-82]
Architectural and engineering activities; technical testing and analysis	
Scientific research and development	
Advertising and market research	
Other professional, scientific, and technical activities; veterinary activities	
Rental and leasing activities	
Employment activities	
Travel agency, tour operator reservation service and related activities	
Security and investigation activities; services to buildings and landscape activities; office administrative, office support and other business support activities	
Public administration and defence; compulsory social security	Government, health & education [84-88]
Education	
Human health activities	
Social work activities	
Creative, arts and entertainment activities; libraries, archives, museums, and other cultural activities; gambling and betting activities	Other services [90-97]
Sports activities and amusement and recreation activities	
Activities of membership organisations	
Repair of computers and personal and household goods	
Other personal service activities	

Industries included in original UK Input-Output table	High-level industry group [and UK SIC Codes]
Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use	

Note: 'n.e.c.' = not elsewhere classified

Source: London Economics' analysis, based on Office for National Statistics (2023d) and UK SIC Codes (see Office for National Statistics, 2022f)

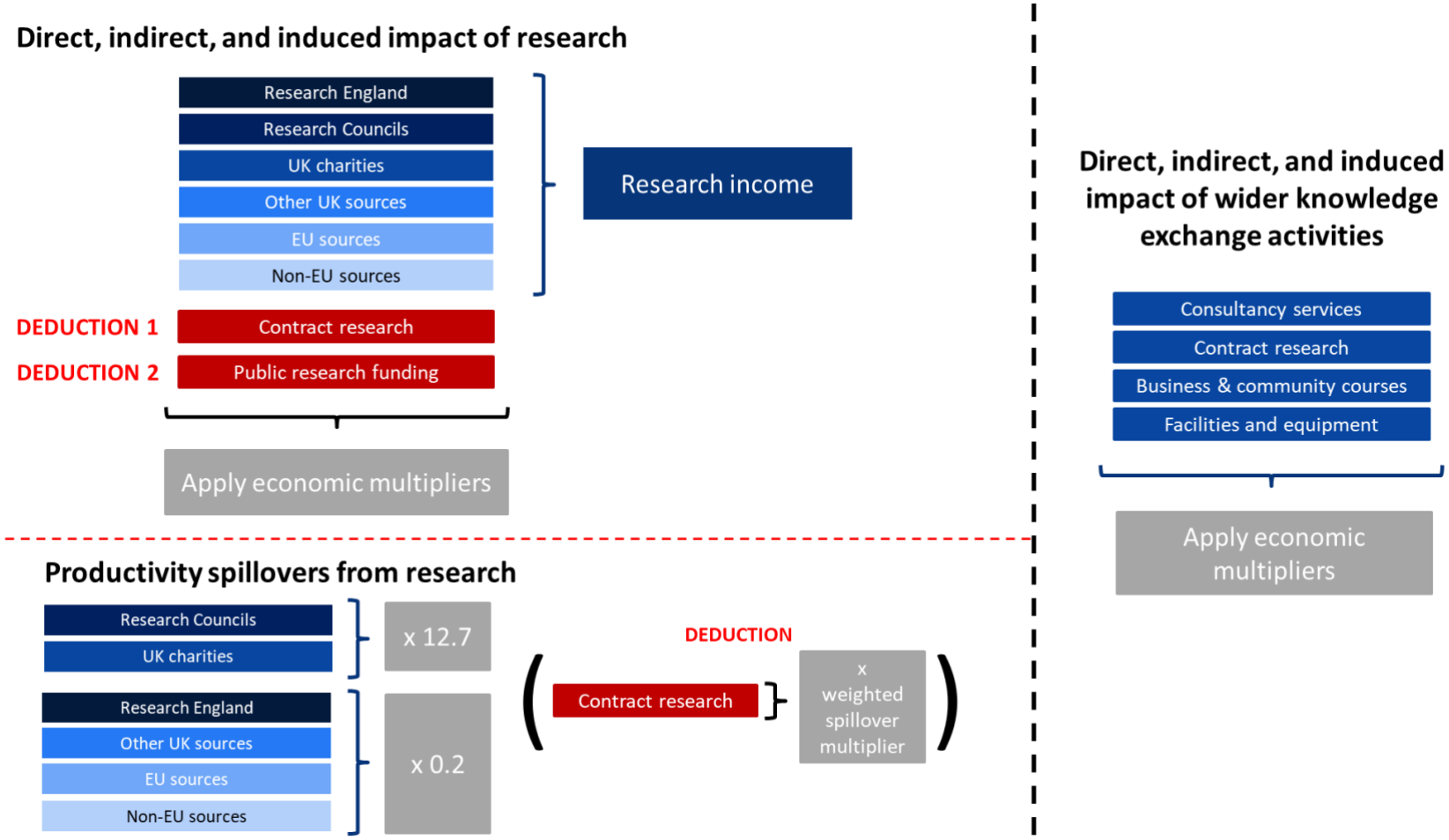
A2.2 Impact of the University's research and knowledge exchange activities

A2.2.1 Overview of the analysis of research and knowledge exchange activities

Figure 24 provides an overview of the methodological approach adopted to analyse the economic impact of Middlesex University's research and knowledge exchange activities, in terms of:

- The direct, indirect, and induced impact of research (Section 2.1.3).
- The productivity spillovers from the University's research (Section 2.1.4).
- The direct, indirect, and induced impact of the University's knowledge exchange activities (Section 2.2).

Figure 24 Overview of the analysis of the impact of research and knowledge exchange activities



Note: Research funding includes collaborative research funding, which is divided into public, cash and in-kind funding. Cash and public fall under and are included in the research categories. In-kind contributions are excluded from the analysis, since these contributions do not represent a cash transaction for which we can robustly apply economic multipliers. To avoid double-counting, contract research funding is deducted from the impact of research, as this is already included within the impact of knowledge exchange activities.

Source: London Economics analysis

A2.2.2 Literature relating to the productivity spillovers to the private sector associated with university research activities

Of particular interest in the context of research conducted by universities, a study by Haskel and Wallis (2010)[90] investigates evidence of **spillovers from publicly funded R&D activities**. The authors analyse productivity spillovers to the private sector from public spending on R&D by the UK Research Councils and public spending on civil and defence-related R&D,[91] and the relative effectiveness of these channels of public spending in terms of their impact on the 'market sector' (i.e. the private sector). They find strong evidence of the existence of market sector productivity spillovers from public R&D expenditure originating from the UK Research Councils. Their findings imply that, while there is no spillover effect associated with publicly funded civil and defence R&D, the marginal spillover effect of public spending on research through the Research Councils stands at **12.7 (i.e. every £1 spent on research through the Research Councils results in an additional annual output of £12.70 within the UK private sector)**. The authors' regressions only test for correlation, which could mean that the results are subject to reverse causality (i.e. it might be the case that increased market sector productivity induced the government to raise public sector spending on R&D). However, the authors test the results with additional time lags and find similar results, which is argued to show that their results appear robust in relation to reverse causation.

Another study by Haskel et al. (2014a) provides additional insight into the size of potential productivity spillovers from university research. Rather than estimating effects on the UK economy as a whole, the authors analyse the size of spillover effects from public research across different UK industries.[92] The authors investigate the correlation between the combined research conducted by the UK Research Councils, the higher education sector, and central government itself (e.g. through public research laboratories), interacted with measures of industry research activity, and total factor productivity within the different market sectors.[93] Their findings imply a total rate of return on public sector research of **0.2 (i.e. every £1 spent on public R&D results in an additional annual output of £0.20 within the UK private sector)**.[94]

A key difference between the multiplier for public sector research found by Haskel et al. (2014a) and the multiplier for Research Council spending provided by Haskel and Wallis (2010) lies in the distinction between *performed* and *funded* research, as outlined by Haskel et al. (2014a). In particular, whereas Haskel and Wallis (2010) estimated the impact of research *funding* by the Research Councils on private sector productivity, Haskel et al. (2014a) instead focus on the *performance* of R&D. Hence, they use measures of the research undertaken by the Research Councils and the government, rather than the research funding which they provide for external research, (e.g. by higher education institutions). The distinction is less

[90] Also, see Imperial College London (2010) for a summary of Haskel and Wallis's findings.
[91] The authors use data on government expenditure published by the (former) Department for Business, Innovation and Skills for the financial years between 1986-87 and 2005-06. The analysis is undertaken by regressing total factor productivity growth in the UK on various measures of public sector R&D spending.
[92] Haskel et al. (2014a) use data on 7 industries in the United Kingdom for the years 1995 to 2007.
[93] In particular, the authors regress the three-year natural log difference of total factor productivity on the three-year and six-year lagged ratio of total research performed by the Research Councils, government, and the Higher Education Funding Councils over real gross output per industry. To arrive at the relevant multiplier, this ratio is then interacted with a measure of co-operation of private sector firms with universities and public research institutes, capturing the fraction of firms in each industry co-operating with government or universities. The lagged independent variables are adjusted to ensure that the resulting coefficients can be interpreted as annual elasticities and rates of return.
[94] For a summary of Haskel et al.'s (2014a) findings, also see Haskel et al. (2014b).

relevant in the higher education sector. To measure the research performed in higher education, the authors use Higher Education Funding Council funding where research is both funded by and performed in higher education.

How do these estimates compare to the wider literature?

Due to a number of significant data limitations and discontinuities within the key dataset on R&D expenditures in the UK, aside from the above-outlined studies by Haskel and Wallis (2010) and Haskel et al. (2014a), there is only relatively limited economic literature available on the productivity spillovers associated with publicly funded research.[95] For example:[96]

- A recent publication for the Department for Science, Innovation and Technology (2024) replicates the Haskel et al. (2014a) approach (despite a number of significant data limitations and discontinuities within the key dataset on R&D expenditures in the UK). This paper uses more recent data than the Haskel et al. (2014a) study and makes use of a more granular breakdown of industries than was previously possible. The paper finds a somewhat higher productivity multiplier estimate than that found by Haskel et al. (2014a), of **0.4**. However, this new estimate is not comparable with the Haskel et al. (2014a) estimate, as it refers to a rate of return of 40% after 6 years, rather than in the year in which the research was undertaken. The authors also highlight that data limitations mean that the results provided may be over-estimates.
- A report for the (former) Department for Business, Innovation and Skills (2014a) replicates the Haskel and Wallis (2010) approach, using a different (publicly-available) dataset and a slightly different methodology to explore variation in types of Research Council R&D investments in terms of their impact on private sector productivity. Despite the difference in data and approach, they find qualitatively similar findings: Research Council R&D investments yield large returns through their impact on private sector productivity,[97] with the comparable productivity spillover multiplier estimated at **10.71**. Moreover, the report finds much higher returns depending on the precise approach and sample used.
- Comparable research by Elnasri and Fox (2017) applies the Haskel and Wallis (2010) approach to assess the productivity spillovers associated with publicly funded research in Australia. The authors find a similar research spillover to Haskel and

[95] Specifically, the Office for National Statistics (ONS) introduced a number of major methodological improvements to its data on Gross Expenditure on R&D (GERD), which constitutes one of the core datasets measuring the scale of total R&D activities across the UK. In particular, the ONS recently improved the measurement of R&D performed by the HE sector, by introducing Transparent Approach to Costing (TRAC) data into its underlying methodology. These changes were implemented from 2018 onwards (but with no changes to previous GERD estimates), resulting in a significant structural break/discontinuity in the data series. In turn, this results in two major issues. First, there are severe limitations associated with the GERD data prior to 2018, since this earlier data omits R&D that was both performed and funded by the HE sector itself (e.g. research funded by surpluses from other activities) – thus under-recording the sector's R&D activity; in addition, the data only accounts for the *direct* costs of R&D work while omitting some *indirect* costs (such as laboratory security and cleaning costs). Second, since the methodological improvements were only made to the data for 2018 onwards, there is currently only a very limited time series (and, therefore, number of observations) available to undertake an updated assessment of the productivity spillovers associated with publicly funded research. For more information on these data issues, see Office for National Statistics (2025b).

[96] It should be noted that much of the existing literature does *not* assume a rate of depreciation on publicly-funded R&D investments. A standard assumption of the depreciation rate from the literature is around 20%-25% per year, which still implies a significant estimate of the productivity spillover.

[97] The coefficient on research council spending is 10.71 in the sample up to 2008, although this is not statistically significant given the limited number of observations employed in their sample.

Wallis (2010), albeit with a slightly lower research multiplier of **9.76**[98] (which may be expected given the different country studied).

- A US-based study by Jones and Summers (2020) undertakes an economy-wide calculation of the average social benefits of investments in innovation, including spillovers. They find a baseline benefit-to-cost ratio of **13.3:1**, although their estimates range from 5 to more than 20 depending on the assumptions made in relation to inflation bias, health benefits, and the discount rate (among other factors).
- In contrast, a study of 22 OECD countries by van Elk et al. (2019) using production function models finds that public R&D investments do not automatically result in positive returns in terms of GDP and total factor productivity growth, and that positive and statistically significant returns depend on the national context in which these investments take place.
- While there is even more limited research associated with general R&D multipliers (for other research income), a report published by the (former) Department for Business, Innovation and Skills (2014b) that focuses on internationally benchmarking the UK science and innovation system notes a rate of return in the range of 20% to 50%.[99]

Hence, overall, although the number of relevant studies is very limited (given the inherent difficulty in identifying spillovers and the above-mentioned data issues), most of these studies suggest that there are significant productivity spillovers associated with R&D activities.

A2.3 Impact of the University's teaching and learning activities

Section 3 outlined our analysis of the **economic impact of teaching and learning activities** associated with the cohort of first-year UK domiciled students who started higher education qualifications at Middlesex University in 2023-24. In the following, we provide further details on the underlying methodological approach used to arrive at our estimates of this impact.

A2.3.1 Adjusting for completion rates

Section 3.1 provided an overview of the number of UK domiciled students *starting* qualifications or modules at the University in 2023-24. However, to aggregate the individual-level impacts of the University's teaching and learning activity, it is necessary to adjust the number of 'starters' to account for **completion rates**.

To achieve this, we used information published by the Office for Students (OfS) on the historical completion outcomes of Middlesex University students, broken down by study mode and study intention (i.e. level of study).[100] In other words, these completion data include the number of students who completed their intended qualification (or module). The remaining proportions of students (who did not complete their intended qualification) were modelled as completing at 'other undergraduate' level (for students who originally enrolled in first degrees or

[98] See London Economics (2018). The authors find an elasticity of 0.175, which we converted to a research spillover of 9.76.
[99] See also Salter and Martin (2001).
[100] See Office for Students (2025). Data are based on full-time 2016-17 to 2019-20 entrants, and part-time 2014-15 to 2017-18 entrants to Middlesex University, tracking their completion outcomes by 2023-24. Completion rates are defined as 'the proportion of students that were observed to have gained a higher education qualification (or were continuing in the study of a qualification) four years and 15 days after they started their course (six years and 15 days for part-time students)'.

other undergraduate qualifications) or 'other postgraduate' level (for students who originally intended to complete higher degrees or other postgraduate qualifications).[101]

Table 14 presents the resulting completion rates applied throughout the analysis. For example, we assume that, of those students starting a full-time first degree at Middlesex University in 2023-24, **83%** complete the first degree as intended, while the remaining **17%** undertake one or more of the credits/modules associated with their degree before discontinuing their studies (modelled as completion at 'other undergraduate' level). Similarly, at postgraduate level, we assume that of those individuals starting a full-time postgraduate taught degree, **91%** complete the qualification as intended, while the remaining **9%** undertake one or more of the credits/modules associated with the intended degree before dropping out (in this case, modelled as completion at 'other postgraduate' level). In all these cases, **the analysis of the impact of teaching and learning calculates the estimated returns associated with the *completed* qualification/standalone module(s)**.

Table 14 Assumed completion rates of Middlesex University student entrants

Completion outcome	Study intention				
	Other undergraduate	First degree	Other postgraduate	Higher degree (taught)	Higher degree (research)
Full-time students					
Other undergraduate	100%	17%	-	-	-
First degree	-	83%	-	-	-
Other postgraduate	-	-	100%	9%	28%
Higher degree (taught)	-	-	-	91%	-
Higher degree (research)	-	-	-	-	72%
Total	**100%**	**100%**	**100%**	**100%**	**100%**
Part-time students					
Other undergraduate	100%	19%	-	-	-
First degree	-	81%	-	-	-
Other postgraduate	-	-	100%	22%	38%
Higher degree (taught)	-	-	-	78%	-
Higher degree (research)	-	-	-	-	62%
Total	**100%**	**100%**	**100%**	**100%**	**100%**

Note: Data are based on full-time 2016-17 to 2019-20 entrants, and part-time 2014-15 to 2017-18 entrants to Middlesex University, tracking their completion outcomes by 2023-24. Completion rates are defined as 'the proportion of students that were observed to have gained a higher education qualification (or were continuing in the study of a qualification) four years and 15 days after they started their course (six years and 15 days for part-time students)'. Totals may not sum due to rounding.

Source: London Economics' analysis based on data published by the Office for Students (2025)

[101] In other words, we assume that students who discontinued their studies at least complete one or several standalone modules associated with their intended qualification, so that these students' completion outcomes were modelled as either completion at 'other undergraduate' or at 'other postgraduate' level. As a result, the total assumed completion rates sum up to 100%.

A2.3.2 Defining the gross graduate premium and gross public purse benefit

As summarised in Section 3, to measure the economic benefits of higher education qualifications, we estimate the **labour market value associated with these qualifications**, rather than simply assessing the labour market outcomes achieved by individuals *in possession* of higher education qualifications. The standard approach to estimating this labour market value is to undertake an **econometric analysis** where the 'treatment' group consists of those individuals in possession of the qualification of interest, and the 'counterfactual' group consists of those individuals with comparable personal and socioeconomic characteristics but with the next highest level of qualification. The rationale for adopting this approach is that the comparison of the earnings and employment outcomes of the treatment group and the counterfactual group 'strips away' (to the greatest extent possible with the relevant data) those other personal and socioeconomic characteristics that might affect labour market earnings and employment (such as gender, age, or sector of employment), leaving just the labour market gains attributable to the qualification itself (see Figure 25 for an illustration of this). The treatment and counterfactual groups, and details of the econometric approach, are presented in Annex A2.3.3 and Annex A2.3.4, respectively.

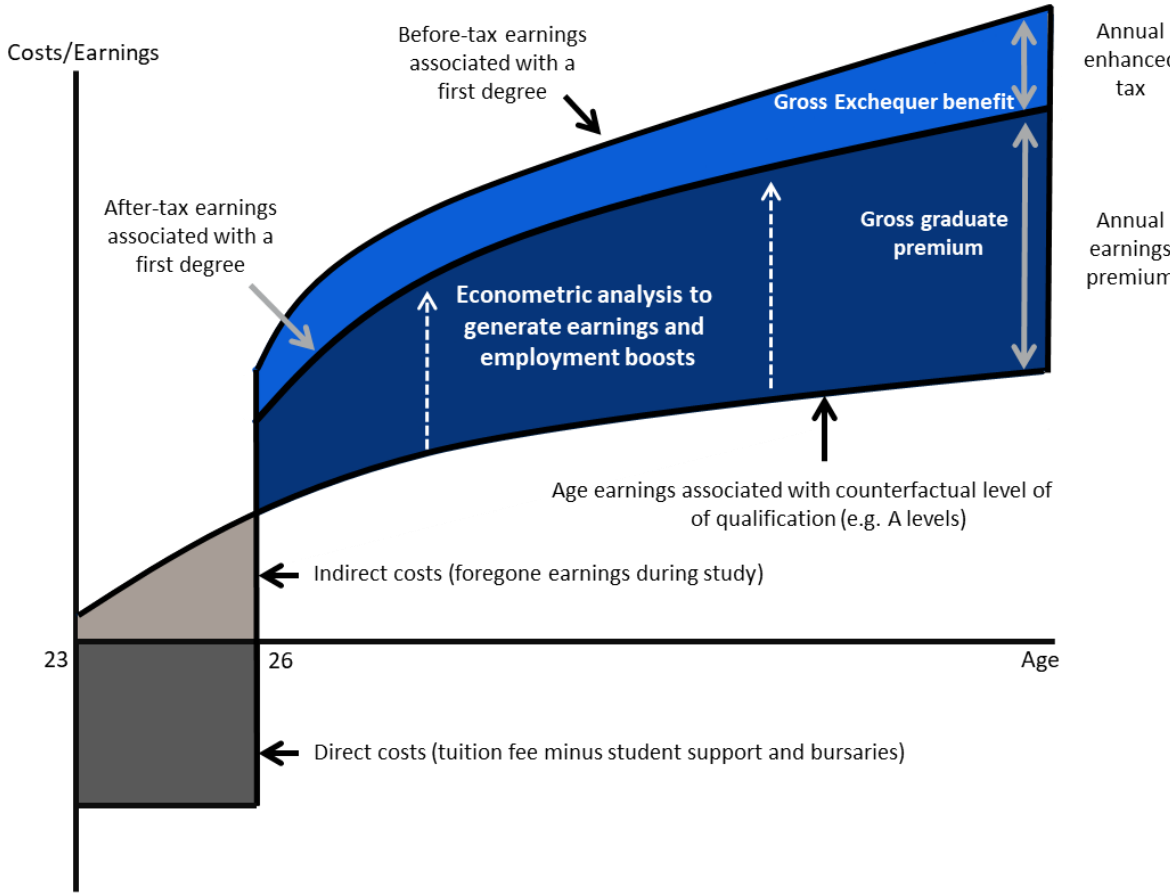
Throughout the analysis, the assessment of earnings and employment outcomes associated with higher education qualification attainment (at all levels) is undertaken separately by **gender**, reflecting the different labour market outcomes between men and women. Further, the analysis is adjusted for the specific **subject composition** of students studying at Middlesex University, to reflect the fact that there is significant variation in post-graduation labour market outcomes depending on the subject of study. In addition, given the fact that part-time students generally undertake and complete higher education qualifications later in life than full-time students, the analysis for part-time students applies a **'decay function'** to the returns associated with qualification attainment, to reflect the shorter period of time in the labour market.[102]

To estimate the **gross graduate premium**, based on the econometric results, we then estimate the **present value of the enhanced post-tax earnings** of individuals in possession of different higher education qualifications (i.e. after income tax, National Insurance and VAT are removed, and following the deduction of foregone earnings) relative to an individual in possession of the counterfactual qualification (see Annex A2.3.6 for more detail).

The **gross benefits to the Exchequer** from the provision of higher education are derived from the enhanced taxation receipts that are associated with a higher likelihood of being employed, as well as the enhanced earnings associated with more highly skilled and productive employees. Based on the analysis of the lifetime earnings and employment benefits associated with higher education qualification attainment and administrative information on the relevant taxation rates and bands (from HM Revenue and Customs), we estimate the **present value of additional income tax, National Insurance contributions, and VAT associated with higher education qualification attainment** (by gender, level of study, mode of study, and prior attainment). Again, please refer to Annex A2.3.6 for more detailed information on the calculation of the gross Exchequer benefit.

[102] See Annex A2.3.5 for more information.

Figure 25 Estimating the gross graduate premium and gross Exchequer benefit



Note: The analysis assumes that the opportunity costs of foregone earnings associated with higher qualification attainment are applicable to full-time students only. For part-time students, we have assumed that these students are able to combine work with their academic studies and as such, do not incur any opportunity costs in the form of foregone earnings. This illustration is based on an analysis of Middlesex University's student cohort data for 2023-24, where the mean age at enrolment for full-time first degree students stands at 23, and the average study duration for full-time first degree students is 3 years (also see Annex A2.3.5).
Source: London Economics

A2.3.3 Qualifications and counterfactuals considered in the econometric analysis

Our econometric analysis of the earnings and employment returns to higher education qualifications (described in more detail in Annex A2.3.4) considered **five different higher education qualification groups** (i.e. five **'treatment' groups** for HE qualifications):

- **Three at postgraduate level** (higher degree (research), higher degree (taught) and 'other' postgraduate qualifications[103]).

[103] 'Other' postgraduate relates to Labour Force Survey variables HIQUAL8, HIQUAL11, HIQUAL15 and HIQUAL22 value labels 'Postgraduate Certificate in Education', 'Other postgraduate degree or professional qualification' and 'Don't know', for individuals who selected 'Higher degree' (other than Masters or Doctorate degree). The specific composition of the treatment group here is based on the composition of individuals undertaking each type of qualification in the relevant Middlesex University student cohort. Courses which are not offered by the institution will thus be excluded from the treatment group.

- **Two at undergraduate level** (first degrees and 'other' undergraduate qualifications[104]).

Table 15 presents these different undergraduate and postgraduate qualifications (i.e. treatment groups) considered in the analysis, along with the associated **counterfactual group** used for the marginal returns analysis in each case. As outlined above, we compare the earnings of the group of individuals in possession of each higher education qualification to the relevant counterfactual group, to ensure that we assess the economic benefit associated with the qualification itself (rather than the economic returns generated by the specific characteristics of the individual in possession of the qualification). This is a common approach in the literature and allows us to control for other personal, regional, or socioeconomic characteristics that might influence *both* the determinants of qualification attainment as well as earnings/employment.

Specifically, for the analysis of marginal labour market returns, postgraduate qualification holders are compared to first degree holders, while for individuals holding first degrees or 'other undergraduate' level qualifications, the counterfactual group consists of individuals holding any (academic or vocational) qualification at Regulated Qualifications Framework (RQF) Level 3 as their highest qualification (i.e. 2 or more GCE 'A' Levels or equivalent).[105, 106]

[104] 'Other' undergraduate relates to Labour Force Survey variables HIQUAL8, HIQUAL11, HIQUAL15 and HIQUAL22 value labels 'other degree', 'diploma in higher education', and 'other higher education below degree'. Interviewers are instructed to use 'other higher education below degree' only if the respondent states that they have 'something from higher education but they do not know what it is'. It is therefore not possible to provide examples of typical qualifications that would normally fall under this category. The response option serves the purpose of confirming that higher education qualifications have been achieved but that the respondent is unaware of the actual qualification title itself. Again, the specific composition of the treatment group here is based on the composition of individuals undertaking qualifications at this level in the 2023-24 Middlesex University student cohort.

[105] Historically (across all UK higher education institutions), students starting first degrees or other undergraduate qualifications were in possession of 2 or more GCE 'A' Levels as their highest level of prior attainment. However, as this is no longer the case for all HE institutions and subject areas, the analysis reflects the fact that approximately 58% of first degree students in the 2023-24 Middlesex University cohort (with information provided on the exact RQF Level 3 qualifications they had obtained before their studies) started their degrees with RQF Level 3 qualifications *other than* GCE 'A' Levels (or equivalent (e.g. Internal Baccalaureates)) as their highest prior attainment. For students which started their degrees with RQF Level 3 qualifications, but where information was not available on whether this included GCE 'A' Levels or equivalent qualifications, we used a group-wise imputation approach, based on students' gender, age band and subject of study, to estimate whether they were likely to have obtained GCE 'A' Levels or equivalents before starting their studies at Middlesex University. This approach was taken for 590 out of 2,795 first degree starters.

[106] In terms of prior attainment, note that for 44 students in the 2023-24 cohort of UK domiciled Middlesex University students, previous attainment levels were specified as 'Not known', 'Mature student admitted on basis of previous experience and/or admissions test', or 'Other qualification level not known'. For these students, we imputed their prior attainment level using a group-wise imputation approach, based on the most common prior attainment among students in the cohort undertaking qualifications at the same level (separately by study mode).

Table 15 Treatment and comparison groups used to assess the marginal earnings and employment returns to higher education qualifications

Treatment group – highest qualification	Comparison group - highest qualification
Higher education qualifications	
Higher degree (research)	First degree
Higher degree (taught)	First degree
Other postgraduate	First degree
First degree	RQF Level 3 (academic or vocational) qualifications[1]
Other undergraduate	RQF Level 3 (academic or vocational) qualifications
Other	
RQF Level 3 (academic or vocational) qualifications[2]	5 or more GCSEs grade A*-C

Note: 1. The analysis for first degrees (only) is weighted to reflect the specific prior attainment levels among UK domiciled students in the 2023-24 Middlesex University cohort. Specifically, the analysis is weighted to reflect the proportions of students in possession of 2 or more GCE 'A' Levels or other academic (or vocational) qualifications (at RQF Level 3) as their highest attainment prior to starting their learning at the University. For students where this information was not available, we used a group-wise imputation approach, based on students' gender, age band and subject of study, to estimate whether they were likely to have obtained GCE 'A' Levels or equivalents before starting their studies at Middlesex University.
2. Similar to the counterfactual group for first degrees, the analysis for the treatment group here is weighted to reflect the proportions of students in possession of 2 or more GCE 'A' Levels or other equivalent (vocational or academic) qualifications (at RQF Level 3) as their highest attainment prior to starting their learning at Middlesex University in 2023-24. ***Source: London Economics***

In addition, we also included a separate specification comparing the earnings associated with RQF Level 3 qualifications to possession of 5 or more GCSEs at grades A*-C (or equivalent). This additional analysis was undertaken to incorporate the fact that the academic 'distance travelled' by a (very small) proportion of students in the 2023-24 Middlesex University cohort is **greater** than might be the case compared to those in possession of levels of prior attainment 'traditionally' associated with higher education entry.[107] Similarly, for other students within the cohort, the academic 'distance travelled' is **lower** than the traditional prior attainment level (e.g. a small proportion of students undertaking first degrees at the University had previously already completed a sub-degree level (i.e. 'other undergraduate') qualification).

In instances where the level of prior attainment for students at Middlesex University was higher or lower than the 'traditional' counterfactual qualifications outlined in Table 15, the analysis used a **'stepwise' calculation of additional lifetime earnings**. For example, to calculate the earnings and employment returns for a student **in possession of an 'other undergraduate' qualification undertaking a first degree at Middlesex University**, we *deducted* the returns to undertaking an 'other undergraduate' qualification (relative to the possession of an RQF Level 3 qualification) from the returns to undertaking a first degree (again relative to the possession of an RQF Level 3 qualification). Similarly, to calculate the returns for a student **in possession of 5 GCSEs A*-C (or equivalent) undertaking a first degree at the University**, we *added* the returns to achieving an RQF Level 3 qualification (relative to the possession of 5

[107] e.g. there is a (very) small number of students in the 2023-24 cohort of UK domiciled Middlesex University students who only held qualifications at RQF Level 2 as their highest prior attainment before starting their learning at the University.

GCSEs A*-C) to the returns to undertaking a first degree (relative to the possession of an RQF Level 3 qualification).[108]

A2.3.4 Marginal earnings and employment returns to higher education qualifications

Marginal earnings returns

To estimate the impact of qualification attainment on earnings, using information from the Labour Force Survey (LFS), we estimated a standard **ordinary least squares** linear regression model, where the dependent variable is the natural logarithm of hourly earnings, and the independent variables include the full range of qualifications held alongside a range of personal, regional, and job-related characteristics that might be expected to influence earnings. In this model specification, we included individuals who were employed on either a full-time or a part-time basis. This approach has been used widely in the academic literature.

The basic specification of the model was as follows:

$ln\ (\omega_i) = \alpha + \beta X_i + \epsilon_i$ for *i* = 1 to n

where ln(ω_i) represents the natural logarithm of hourly earnings, $\epsilon_i$represents an error term, α represents a constant term, i is an individual LFS respondent, and X_i provides the independent variables included in the analysis, as follows:

- Highest qualification held;
- Age;
- Age squared;
- Ethnic origin;
- Disability status;
- Region of work;
- Marital status;
- Number of dependent children under the age of 16;
- Full-time/part-time employment;
- Temporary or permanent contract;
- Public or private sector employment;
- Workplace size; and
- Yearly dummies[109].

[108] In some instances, this stepwise calculation might result in *negative* lifetime returns to achieving higher education qualifications. As this seems illogical and unlikely in reality, any negative returns in these instances were set to zero. Hence, the analysis implicitly assumes that all calculated gross returns (*before* the deduction of any foregone earnings or other costs) can only be greater than or equal to zero (i.e. there can be no wage or employment *penalty* associated with any HE qualification attainment, irrespective of the level of prior attainment).

[109]A dummy variable is one that takes a binary value, either 0 or 1, to indicate the outcome. In this instance, the variable for each year takes the value of 1 if the observation occurred in that year, and 0 otherwise. This allows us to control for year-specific effects, such changes in economic conditions or the Covid-19 pandemic, which are likely to have an impact on earnings and/or employment.

Using the above specification, we estimated earnings returns in aggregate and **for men and women separately**. Further, to analyse the benefits associated with different education qualifications over the lifetime of individuals holding these qualifications, the regressions were **estimated separately across a range of specific age bands** for the working age population, depending on the qualification considered. The estimated marginal earnings returns also take account of the specific subject mix of UK domiciled students in the 2023-24 Middlesex University cohort.[110] As a result, the estimated marginal wage returns **adjust for the specific subject composition of Middlesex University's student cohort**, where possible.[111] In addition, as outlined in Annex A2.3.3, the marginal wage returns for first degrees also **reflect the specific prior level of attainment of first degree students in the 2023-24 Middlesex University cohort** (i.e. where the analysis is adjusted for the proportions of students in possession of GCE 'A' levels vs. other types of RQF Level 3 qualifications as their highest prior attainment on entry).

Further, note that the analysis of earnings premiums was undertaken at a national (UK-wide) level. However, to adjust for differences across the Home Nations, these UK-wide earnings premiums were then combined with the relevant differential direct costs facing the individual and/or the public purse for students domiciled in the different Home Nations and studying in England.

To estimate the impact of higher education qualifications on labour market outcomes using this methodology, we used information from **pooled Quarterly UK Labour Force Survey data between Q1 2010 and Q4 2024**. All earnings information within the data was adjusted to June 2023 prices.

The resulting estimated marginal wage returns to the different qualifications of interest are presented in Table 16. In the earnings regressions, the coefficients provide an indication of the additional effect on hourly earnings associated with possession of the respective higher education qualification relative to the counterfactual level of qualification. To take an example, the analysis suggests that men aged between 36 and 40 in possession of a first degree achieve a **23.2%** hourly earnings premium compared to comparable men holding only an (academic or vocational) RQF Level 3 qualification as their highest level of attainment (weighted to reflect the specific prior attainment levels of first degree students in the 2023-24 Middlesex University cohort). The comparable estimate for women aged between 36 and 40 stands at **31.8%**.

[110] This subject mix adjustment was made by applying weights in the LFS regressions reflecting the proportion of students in the cohort enrolled in each subject area. The HESA Common Aggregation Hierarchy (CAH) was used to classify subject areas. The following subject groups were distinguished: (1) Medicine & dentistry, (2) Subjects allied to medicine, (3) Biological and sports sciences, (4) Psychology, (5) Veterinary Sciences, (6) Agriculture, food & related studies, (7) Physical sciences, (8) General and others in sciences, (9) Mathematical sciences, (10) Engineering & technology, (11) Computing, (13) Architecture, building & planning, (14) Humanities & liberal arts (non-specific), (15) Social sciences, (16) Law, (17) Business & management, (19) Language & area studies, (20) Historical, philosophical & religious studies, (22) Education and teaching, (23) Combined & general studies, (24) Media, journalism and communications, (25) Design, and creative and performing arts, and (26) Geography, earth and environmental studies.

[111] Note that the LFS data did *not* include information on subjects for students undertaking 'other undergraduate' qualifications. Therefore, the subject mix adjustment factors for other undergraduate qualifications were instead based on the subject-level returns to first degrees, weighted by the number of students in the cohort undertaking other undergraduate qualifications in each subject, and multiplied by the overall ratio of the marginal earnings returns to other undergraduate qualifications relative to first degrees (across all subjects).

Table 16 Marginal earnings returns to higher education qualifications (weighted across subjects), in % (following exponentiation), by gender and age band

Qualification level (vs. counterfactual)	Age band								
	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61-65
Men									
Level 3 (vs. 5+GCSEs)[1]	6.1%	7.5%	10.7%	11.7%	10.5%	9.2%	7.8%	12.9%	8.0%
Other undergraduate (vs. Level 3)[2]		4.7%	17.2%	19.6%	25.7%	22.5%	22.8%	24.2%	37.7%
First degree (vs. Level 3)[2]	9.3%	14.1%	20.2%	23.2%	30.2%	24.9%	28.3%	31.3%	37.4%
Other postgraduate (vs. first degrees)[3]	16.9%								
Higher degree (taught) (vs. first degrees)[3]		3.8%	7.6%	8.7%	13.2%	13.4%	12.0%	13.7%	27.5%
Higher degree (research) (vs. first degrees)[3]	42.3%		10.7%	19.8%	15.0%	24.0%	15.3%	35.3%	35.0%
Women									
Level 3 (vs. 5+GCSEs)[1]	3.3%	4.9%	5.0%	8.7%	9.7%	5.7%	7.6%	7.4%	6.0%
Other undergraduate (vs. Level 3)[2]	4.1%	8.7%	13.7%	26.1%	27.0%	26.1%	27.1%	25.7%	29.4%
First degree (vs. Level 3)[2]	7.5%	17.7%	28.1%	31.8%	31.5%	32.3%	28.0%	29.3%	25.9%
Other postgraduate (vs. first degrees)[3]	6.5%		3.6%	6.0%	8.3%	10.3%	13.8%	11.4%	12.4%
Higher degree (taught) (vs. first degrees)[3]	4.8%	2.7%	12.4%	15.0%	18.5%	26.0%	25.5%	32.7%	21.8%
Higher degree (research) (vs. first degrees)[3]		15.8%	24.0%	28.0%	36.8%	50.2%	47.0%	52.8%	49.3%

Note: Regression coefficients have been exponentiated to reflect percentage wage returns. In cases where the estimated coefficients are not statistically significantly different from zero (at the 10% level), the coefficient is assumed to be zero; these are displayed as gaps in the table.

[1] Returns to holding RQF Level 3 qualifications are estimated relative to 5 or more GCSEs at A*-C (or equivalent) (weighted to reflect the proportion of first degree entrants in the 2023-24 Middlesex University cohort holding GCE 'A' levels (or equivalent) vs. other RQF Level 3 qualifications as their highest prior qualification on entry).

[2] Returns to other undergraduate qualifications and first degrees are estimated relative to individuals holding a Level 3 (academic or vocational) qualification as their highest qualification. Returns to first degrees are estimated relative to individuals holding RQF Level 3 qualifications as their highest qualification (weighted by the proportion of first degree entrants in the 2023-24 Middlesex University cohort holding GCE 'A' levels (or equivalent) vs. other RQF Level 3 qualifications as their highest prior attainment).

[3] Returns to higher degree (taught), higher degree (research), and 'other' postgraduate qualifications are estimated relative to first degrees.

Source: London Economics' analysis of pooled Quarterly Labour Force Survey data for 2010 Q1 - 2024 Q4

Marginal employment returns

To estimate the impact of qualification attainment on employment, we adopted a **probit model** to assess the likelihood of different qualification holders being in employment or otherwise. The basic specification defines an individual's labour market outcome to be either in employment (working for payment or profit for more than 1 hour in the reference week (using the standard International Labour Organisation definition) or not in employment (being either unemployed or economically inactive)). The specification of the probit model was as follows:

$$Probit(EMPNOT_i) = \alpha + \gamma Z_i + \epsilon_i \quad \text{for } i = 1 \text{ to n}^{112}$$

The dependent variable adopted represents the binary variable $EMPNOT_i$, which is coded 1 if the individual is in employment and 0 otherwise.[113] We specified the model to contain a constant

[112] Where i is again an individual LFS respondent.

[113] The probit function reflects the cumulative distribution function of the standard normal distribution.

term (α) as well as a number of standard independent variables, including the qualifications held by an individual (represented by Z_i in the above equation), as follows:

- Highest qualification held;
- Age;
- Age squared;
- Ethnic origin;
- Disability status;
- Region of usual residence;
- Marital status;
- Number of dependent children under the age of 16; and
- Yearly dummies.

Again, ϵ_i represents an error term. Similar to the methodology for estimating earnings returns, the described probit model was estimated in aggregate and **separately for men and women**, with the analysis further split by respective **age bands**, and adjusted for the specific **subject mix** of students in the 2023-24 cohort of UK domiciled students studying at Middlesex University. Further, and again similar to the analysis of earnings returns, the employment returns were estimated at the national (i.e. UK-wide) level. In addition, the marginal employment returns for first degrees again reflect the specific prior level of attainment of first degree students in the 2023-24 Middlesex University cohort (i.e. the proportions of students in possession of GCE 'A' levels (or equivalent) vs. other types of RQF Level 3 qualifications as their highest prior attainment on entry).

The resulting estimated marginal employment returns to HE qualifications are presented in Table 17. In the employment regressions, the relevant coefficients provide estimates of the impact of the given qualification on the probability of being in employment (expressed in percentage points). Again, to take an example, the analysis estimates that men aged between 36 and 40 in possession of a first degree are **4.8 percentage points** more likely to be in employment than men of similar age holding only a Level 3 qualification as their highest level of education (again, predominantly including GCE 'A' levels). The corresponding estimate for women stands at **6.5 percentage points**.

Table 17 Marginal employment returns to higher education qualifications (weighted across subjects), in percentage points, by gender and age band

Qualification level	Age band								
	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61-65
Men									
Level 3 (vs. 5+GCSEs)[1]	2.3	3.6	2.1		1.7	1.5		1.8	
Other undergraduate (vs. Level 3)[2]					2.2		1.6	-2.7	
First degree (vs. Level 3)[2]		1.8	2.1	4.8	2.4				-4.8
Other postgraduate (vs. first degrees)[3]	11.1	2.3	2.5	1.6	2.5	2.0	4.8		-8.1
Higher degree (taught) (vs. first degrees)[3]	-6.0	-2.1						3.4	
Higher degree (research) (vs. first degrees)[3]	13.9	2.3		1.3	2.7		7.2	7.8	8.1
Women									
Level 3 (vs. 5+GCSEs)[1]	4.5	4.4	3.4	3.9	3.4	4.2	3.6	2.9	2.5
Other undergraduate (vs. Level 3)[2]	2.7		3.4	4.6	3.0	2.7	2.0		
First degree (vs. Level 3)[2]	3.2	7.1	7.3	6.5	5.5	4.0			
Other postgraduate (vs. first degrees)[3]	3.6		2.7	3.2	3.6	3.8	4.9	6.2	
Higher degree (taught) (vs. first degrees)[3]	-4.3	-2.1				2.8	4.2	5.4	5.8
Higher degree (research) (vs. first degrees)[3]			3.3	3.7	7.0	4.1	9.6	18.0	12.0

Note: In cases where the estimated coefficients are not statistically significantly different from zero (at the 10% level), the coefficient is assumed to be zero; these are displayed as gaps in the table.

[1] Returns to holding RQF Level 3 qualifications are estimated relative to 5 or more GCSEs at A*-C (or equivalent) (weighted to reflect the proportion of first degree entrants in the 2023-24 Middlesex University cohort holding GCE 'A' levels (or equivalent) vs. other RQF Level 3 qualifications as their highest prior qualification on entry).

[2] Returns to other undergraduate qualifications and first degrees are estimated relative to individuals holding a Level 3 (academic or vocational) qualification as their highest qualification. Returns to first degrees are estimated relative to individuals holding RQF Level 3 qualifications as their highest qualification (weighted by the proportion of first degree entrants in the 2023-24 Middlesex University cohort holding GCE 'A' levels (or equivalent) vs. other RQF Level 3 qualifications as their highest prior attainment).

[3] Returns to higher degree (taught), higher degree (research), and 'other' postgraduate qualifications are estimated relative to first degrees.

Source: London Economics' analysis of pooled Quarterly Labour Force Survey data for 2010 Q1 – 2024 Q4

A2.3.5 'Age-decay' function

Existing economic analyses of the lifetime benefits associated with higher education qualifications to date (e.g. Walker and Zhu, 2013) have typically focused on the returns associated with the 'traditional path' of higher education qualification attainment – i.e. progression directly from secondary level education and completion of a three- or four-year undergraduate degree from the age of 18 or 19 onwards (completing by the age of 21 or 22). These analyses assume that there are direct costs (tuition fees etc.), as well as an opportunity cost (the foregone earnings while undertaking the qualification full-time) associated with qualification attainment. More importantly, these analyses make the implicit assumption that *any and all* of the estimated earnings and/or employment benefit achieved accrues to the individual.

However, **the labour market outcomes associated with the attainment of higher education qualifications on a part-time basis are fundamentally different than those achieved by full-time students**. In particular, part-time students typically undertake higher

education qualifications several years later than the 'standard' full-time student (e.g. the estimated average age at enrolment among students in the 2023-24 cohort completing part-time postgraduate taught degrees at Middlesex University is **39**, compared to **29** for corresponding full-time students); generally undertake their studies over an extended period of time; and often combine their studies with full-time employment. Table 18 presents the assumed average age at enrolment, study duration, and age at completion for students in the 2023-24 Middlesex University cohort.[114]

Table 18 Average age at enrolment, study duration, and age at completion among students in the 2023-24 Middlesex University cohort

Qualification level	Full-time students			Part-time students		
	Age at enrolment	Duration (years)	Age at completion	Age at enrolment	Duration (years)	Age at completion
Other undergraduate	26	1	27	39	2	41
First degree	23	3	26	32	5	37
Other postgraduate	31	1	32	40	2	42
Higher degree (taught)	29	1	30	39	2	41
Higher degree (research)	35	4	39	44	7	51

Note: All values have been rounded to the nearest integer. ***Source: London Economics' analysis based on Middlesex University HESA data***

Given these characteristics, we adjust the methodology when estimating the returns to part-time (and relatively late full-time) education attainment at Middlesex University, through the use of an **'age-decay' function**. This approach assumes that possession of a particular higher education qualification is associated with a certain earnings or employment premium, and that this entire labour market benefit accrues to the individual *if* the qualification is attained before the age of 24 (for undergraduate qualifications) or 29 (for postgraduate qualifications). However, as the age of attainment increases, it is expected that a declining proportion of the estimated earnings and employment benefit accrues to the individual.[115] This calibration ensures that those individuals completing qualifications at a relatively older age will see relatively lower earnings and employment benefits associated with higher education qualification attainment (and perhaps reflect potentially different motivations among this group of learners). In contrast, those individuals attaining qualifications earlier in their working life will see a greater economic benefit.

[114] The assumed average age at enrolment is based on the number of individuals in the cohort assumed to *complete* a given qualification at the University (based on the assumption that some students might complete a different qualification than initially intended, or instead only complete several standalone credits/modules associated with the intended qualification (see Annex A2.3.1 for more information)). In particular, the age at enrolment per qualification (based on the HESA student data provided by Middlesex University) is calculated as the weighted average age at enrolment across students in the 2023-24 cohort expected to *complete* the given qualification (weighted by the number of students starting different qualification aims and completing each given qualification, separately by study mode). The assumed average durations of study (by qualification level and mode) are based on assumptions made by London Economics and approved as accurate by Middlesex University.

[115] E.g. Callender et al. (2011) suggest that the evidence points to decreasing employment returns with age at qualification: older graduates are less likely to be employed than younger graduates three and a half years after graduation; however, there are no differences in the likelihood of graduates undertaking part-time and full-time study being employed according to their age or motivations to study.

Table 19 presents the assumed age-decay adjustment factors which we apply to the marginal earnings and employment returns to full-time and part-time students undertaking qualifications in the 2023-24 Middlesex University cohort. To take an example, we have assumed that a student undertaking a first degree on a full-time basis recoups **93%** of the earnings and employment premium identified in the econometric analysis (for their entire working life). However, for part-time first degree students, we assume that because of the later attainment (at age **37** (on average)), these students recoup only **65%** of the corresponding earnings and employment premiums.

Table 19 Assumed age-decay adjustment factors for students in the 2023-24 Middlesex University cohort

Age	Other undergraduate	First degree	Other postgraduate	Higher degree (taught)	Higher degree (research)
18	100%	100%	100%	100%	100%
19	100%	100%	100%	100%	100%
20	100%	100%	100%	100%	100%
21	100%	100%	100%	100%	100%
22	100%	100%	100%	100%	100%
23	100%	100%	100%	100%	100%
24	98%	98%	100%	100%	100%
25	95%	95%	100%	100%	100%
26	93%	93%	100%	100%	100%
27	90%	90%	100%	100%	100%
28	88%	88%	100%	100%	100%
29	85%	85%	97%	97%	97%
30	83%	83%	94%	94%	94%
31	80%	80%	91%	91%	91%
32	78%	78%	89%	89%	89%
33	75%	75%	86%	86%	86%
34	73%	73%	83%	83%	83%
35	70%	70%	80%	80%	80%
36	68%	68%	77%	77%	77%
37	65%	65%	74%	74%	74%
38	63%	63%	71%	71%	71%
39	60%	60%	69%	69%	69%
40	58%	58%	66%	66%	66%
41	55%	55%	63%	63%	63%
42	53%	53%	60%	60%	60%
43	50%	50%	57%	57%	57%
44	48%	48%	54%	54%	54%
45	45%	45%	51%	51%	51%
46	42%	42%	49%	49%	49%
47	40%	40%	46%	46%	46%
48	37%	37%	43%	43%	43%
49	35%	35%	40%	40%	40%
50	32%	32%	37%	37%	37%
51	30%	30%	34%	34%	34%
52	27%	27%	31%	31%	31%
53	25%	25%	29%	29%	29%
54	22%	22%	26%	26%	26%
55	20%	20%	23%	23%	23%
56	17%	17%	20%	20%	20%
57	15%	15%	17%	17%	17%
58	12%	12%	14%	14%	14%
59	10%	10%	11%	11%	11%
60	7%	7%	9%	9%	9%
61	5%	5%	6%	6%	6%
62	2%	2%	3%	3%	3%
63	0%	0%	0%	0%	0%
64	0%	0%	0%	0%	0%
65	0%	0%	0%	0%	0%

Note: Shaded areas indicate relevant average graduation age per full-time/part-time student at each level of study at Middlesex University (also see Table 18): Full-time students Part-time students

Source: London Economics' analysis based on Middlesex University data

A2.3.6 Estimating the gross graduate premium and gross public purse benefit

The gross graduate premium associated with qualification attainment is defined as the **present value of enhanced post-tax earnings** (i.e. after income tax, National Insurance, and VAT are removed, and following the deduction of foregone earnings) relative to an individual in possession of the counterfactual qualification. To estimate the value of the gross graduate premium, it is necessary to extend the econometric analysis (presented in Annex A2.3.4) by undertaking the following elements of analysis (separately by study level, gender, and study mode):

1. We estimated the employment-adjusted **annual earnings achieved by individuals in the counterfactual groups** (e.g., RQF Level 3 qualifications or first degrees), again using pooled Quarterly UK Labour Force Survey data between Q1 2010 and Q4 2024.
2. We inflated these baseline or counterfactual earnings using the marginal earnings premiums and employment premiums (presented in Table 16 and Table 17 in Annex A2.3.4, respectively), adjusted to reflect late attainment (as outlined in Annex A2.3.5), to produce **annual age-earnings profiles associated with the possession of each particular higher education qualification (i.e. treatment group)**.
3. We adjusted these age-earnings profiles to account for the fact that earnings are expected to increase over time (based on average annual earnings growth rate forecasts published by the Office for Budget Responsibility (2025)[116]).
4. Based on the earnings profiles generated by qualification holders, and income tax and National Insurance rates and allowances for the relevant academic year,[117] we computed the future stream of net earnings (i.e. post-tax).[118] Using similar assumptions, we further calculated the stream of (employment-adjusted) foregone earnings (based on earnings in the relevant counterfactual group[119]) during the period of study, again net of tax, for full-time students only.

[116] Specifically, we make use of the Office for Budget Responsibility's most recent short-term forecasts (for 2024-25 to 2029-30; see Office for Budget Responsibility (2025), detailed forecast tables: Economy – Table 1.6) and long-term forecasts (for 2030-31 onwards; see Office for Budget Responsibility (2025), supplementary tables: long-term economic determinants) of nominal average earnings growth.

[117] i.e. 2023-24. Note that the analysis assumes fiscal neutrality, that in subsequent years, the earnings tax and National Insurance income thresholds/bands grow at the same rates of average annual earnings growth (again based on Office for Budget Responsibility (2025) forecasts). Further, note that different thresholds and rates for National Insurance contributions applied throughout different parts of the 2023-24 tax year. Here, for simplicity, we use the rates and threshold that applied at the end of 2023-24 (i.e. the rates and thresholds applicable between 6th January 2024 and 5th April 2024 (the last 3 months of the 2023-24 tax year)).

[118] The tax adjustment also takes account of increased VAT revenues for HMT, by assuming that individuals consume 90.9% of their annual income, and that 47.9% of their consumption is subject to VAT at a rate of 20%. The assumed proportion of income consumed is based on forecasts of the household savings rate published by the Office for Budget Responsibility (2025), while the proportion of consumption subject to VAT is based on OBR forecasts of the standard VAT rate share from the same source.

[119] The foregone earnings calculations are based on the baseline or counterfactual earnings associated with either RQF Level 3 (vocational or academic) qualifications or first degrees. As outlined in Annex A2.3.3, some students in the 2023-24 Middlesex University cohort were in possession of other levels of prior attainment. To accommodate this, as a simplifying assumption, the foregone earnings for students previously in possession of other undergraduate qualifications (other than first degrees) are based on the earnings associated with possession of a Level 3 qualification as the highest qualification (adjusted for the age at enrolment and completion associated with the relevant higher education qualification undertaken at Middlesex University). In addition, the estimated foregone earnings for students previously in possession of postgraduate qualifications are based on the earnings of individuals in possession of first degrees.

5. We then calculated the **discounted** stream of additional (employment-adjusted) future earnings compared to the relevant counterfactual group (using a standard real discount rate of **3.5%** (Years 1-30) and **3.0%** (Years 31+) as outlined in HM Treasury's Green Book (HM Treasury, 2022)), as well as the discounted stream of foregone earnings during qualification attainment (for full-time students), to generate present value figures. We thus arrive at the **gross graduate premium** (or equivalent) associated with each higher education qualification.
6. The **discounted** stream of enhanced taxation revenues minus the tax income foregone during students' qualification attainment (where relevant) derived in element 4 then provides the estimated **gross public benefit** associated with higher education qualification attainment.

Note that the gross graduate premium and gross public benefit for students undertaking qualifications at a level *equivalent to or lower* than the highest qualification that they are already in possession of was assumed to be zero. For example, it is assumed that a student in possession of a first degree undertaking an additional degree at Middlesex University will *not* accrue any wage or employment benefits from this additional qualification attainment (while still incurring the costs of foregone earnings during the period of study, if they studied on a full-time basis). Further note that the analysis of gross graduate premiums and public purse benefits was undertaken at a **national** (UK-wide) level. To adjust for differences across the Home Nations, these UK-wide premiums were then combined with the relevant differential student support costs facing the individual and/or the Exchequer for students domiciled in the different Home Nations and studying in England.

A2.3.7 Estimating the net graduate premium and net public purse benefit

The difference between the gross and net graduate premium relates to **students' direct costs** of qualification acquisition.[120] These direct costs refer to the **tuition fee paid by the student**[121] minus any **tuition fee support** or **maintenance support** provided by the Student Loans Company (SLC, for students from England, Wales, and Northern Ireland) or the Students Awards Agency (SAAS, for students from Scotland),[122] and minus any **fee waivers or**

[120] Note again that the *indirect* costs associated with qualification attainment, in terms of the foregone earnings during the period of study (for full-time students only), are already deducted from the gross graduate premium.
[121] Average tuition fees per student per year were calculated through the use of information provided by Middlesex University, separately by study level, mode, and domicile (i.e. UK or non-UK). In terms of fee eligibility, we assume that all UK domiciled students studying at the University in the 2023-24 cohort were eligible to pay 'home' fees, and that all non-UK domiciled were not eligible to pay 'home' fees.
[122] The analysis makes use of *average* levels of support paid per student by study mode, domicile, and level (i.e. undergraduate, higher degree (taught) and higher degree (research), and we assume that no funding is available for students undertaking qualifications at 'other postgraduate' level). Our estimates are based on SLC publications on student support for higher education in England, Wales, and Northern Ireland in 2023-24 (see Student Loans Company 2024a, 2024b and 2024c, respectively) and a publication by the Student Awards Agency Scotland (2024) on student support for higher education in Scotland in 2023-24. To ensure comparability across the different Home Nations, we focus only on core student support in terms of tuition fee grants, tuition fee loans, maintenance grants and maintenance loans (where applicable), but *exclude* any Disabled Students' Allowance and other targeted support. Wherever possible, we focus on the average level of support for the most recent student cohorts available. Furthermore, and again wherever possible, we adjusted the average levels of fee and maintenance loans for average loan take-up rates available from the same sources. In addition, the assumed average fee loans or fee grants per student (where applicable) have been capped at the average tuition fees charged per Middlesex University student in 2023-24 (also see Footnote 121), and were calculated net of any fee waivers provided by Middlesex University itself (see Footnote 123).

bursaries provided by Middlesex University itself[123]. In this respect, the student benefit associated with public tuition fee loan or maintenance loan support equals the **Resource Accounting and Budgeting charge** (RAB charge), capturing the proportion of the loan that is not repaid. The relevant RAB charges by study level, mode, and by Home Nation of domicile are provided in Table 20. Given the differences in public funding support for students from each of the UK Home Nations, the direct costs incurred by students were assessed separately for students from England, Wales, Scotland, and Northern Ireland.

Table 20 Resource Accounting and Budgeting charge (RAB charge) by study level, study mode, and Home Nation of domicile

Level and mode of study	England	Wales	Scotland	Northern Ireland
FT				
Undergraduate	29%	0%	30%	14%
Higher degree (taught)	0%	0%	-	0%
Higher degree (research)	23%	23%	-	-
PT				
Undergraduate	28%	10%	-	10%
Higher degree (taught)	0%	0%	-	0%
Higher degree (research)	23%	23%	-	-

Note: RAB charge estimates for English domiciled undergraduate students are based on Plan 5 estimates. There are currently no student loans provided to Scottish domiciled undergraduate part-time students, nor to Scottish domiciled postgraduate taught students studying outside of Scotland, so no RAB charge assumptions are required. Funding is also not provided for Northern Irish or Scottish domiciled postgraduate research students. In the absence of alternative information, we have assumed the same RAB charge for postgraduate taught students from Wales and Northern Ireland as that for English domiciled students (based on postgraduate Master's loans (Plan 3)), and the same RAB charge for postgraduate research students from Wales as that for English domiciled students (again in relation to Plan 3).

Source: Department for Education, 2025b (for English domiciled undergraduate students and all postgraduate students (where relevant)); London Economics, 2024 (for undergraduate students from the rest of the UK).

The **direct costs**[124] **to the public purse** include the **teaching grant funding** provided to Middlesex University by the Office for Students[125] and the **student support** provided in the form of fee and maintenance loans and grants (where applicable, and where any loan support has been adjusted for the relevant RAB charge). Again, the analysis tailors the cost of student support to the student's specific Home Nation of domicile (i.e. separately for English, Welsh, Scottish, and Northern Irish domiciled students studying at Middlesex University).

These direct costs associated with qualification attainment to both students and the Exchequer (by study level, study mode and Home Nation domicile) are calculated from start to completion of a student's learning aim. Throughout the analysis, to ensure that the economic impacts are computed in **present value** terms (i.e. in 2023-24 money terms), all benefits and costs

[123] Average fee waivers and non-fee waivers (i.e. other bursaries and scholarships) per student were based on information provided by Middlesex University on the fee waivers and other (non-fee) bursaries provided by the University in 2023-24. Average fee waivers and other bursaries were calculated by study level, mode, and domicile.
[124] Again, any indirect costs to the public purse in terms of tax receipts foregone during the period of study (applicable to full-time students only) are already deducted as part of the gross public purse benefits as described above.
[125] This is based on financial information on the total OfS recurrent teaching grant received by Middlesex University in 2023-24 (see Middlesex University, 2024), divided by the total number of students enrolled at the University in 2023-24 who were eligible to pay 'home' fees (i.e. excluding any students who were not eligible to pay 'home' fees, and further excluding higher degree (research) students, i.e. it is assumed that there is no teaching funding associated with these students).

occurring at points in the future were **discounted** using the standard HM Treasury Green Book real discount rate of **3.5%/3.0%** (see HM Treasury, 2022). Deducting the resulting individual and Exchequer costs from the estimated gross graduate premium and gross public purse benefit, respectively, we arrive at the estimated **net graduate premium** and **net public purse benefit** per student (as presented in Section 3.3).

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