

THE IMPACT OF INDEPENDENT SCHOOLS ON THE UK ECONOMY OCTOBER 2018

A REPORT PREPARED FOR
THE INDEPENDENT SCHOOLS COUNCIL

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EXECUTIVE SUMMARY

£6.05 bn

ISC schools' "direct" contribution to UK GDP in 2017.

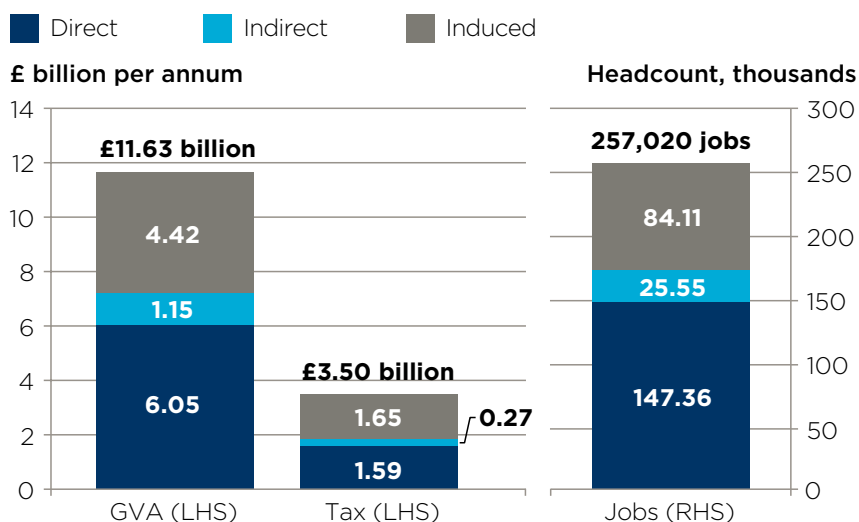
This supported 147,000 jobs and generated £1.59 billion in tax revenues.

This report examines the impact on the wider economy of schools in the UK that are members of the constituent associations of the Independent Schools Council (ISC). In early 2018, 1,317 such schools employed 65,600 teachers. Their 525,000 enrolled pupils accounted for 85 percent of all independent school pupils in the UK, who in turn account for six percent of the country's entire school population.

In 2017, ISC schools' core operations (excluding trading, fundraising, and other financing activities) brought in £7.83 billion of income, of which £1.78 billion was used to purchase goods and services from other organisations. The remaining £6.05 billion—comprising employment costs, capital costs, and a small net surplus—represents the ISC schools' "direct" contribution to the nation's GDP in 2017. This is found to have generated annual tax revenues of £1.59 billion, and the schools are estimated to have employed over 147,000 teaching and non-teaching staff—equivalent to the total number of jobs in the local authority areas of Derby, Northampton, or Kensington and Chelsea.

But their contribution to the national economy does not end there. We estimate the ISC schools' expenditure on goods and services stimulated a further "indirect" contribution to GDP along their UK supply chain of £1.15 billion, supported 26,000 more jobs, and generated £270 million in tax revenues. Furthermore, the wage-funded expenditure of staff working both in the schools and along their UK supply chain is found to have supported £4.42 billion of "induced" GDP, 84,000 jobs, and £1.65 billion in tax revenues in 2017.

Fig. 1: The economic footprint of ISC schools in the UK



Source: Oxford Economics

£13.71 bn

Total contribution of all independent schools to UK GDP in 2017.

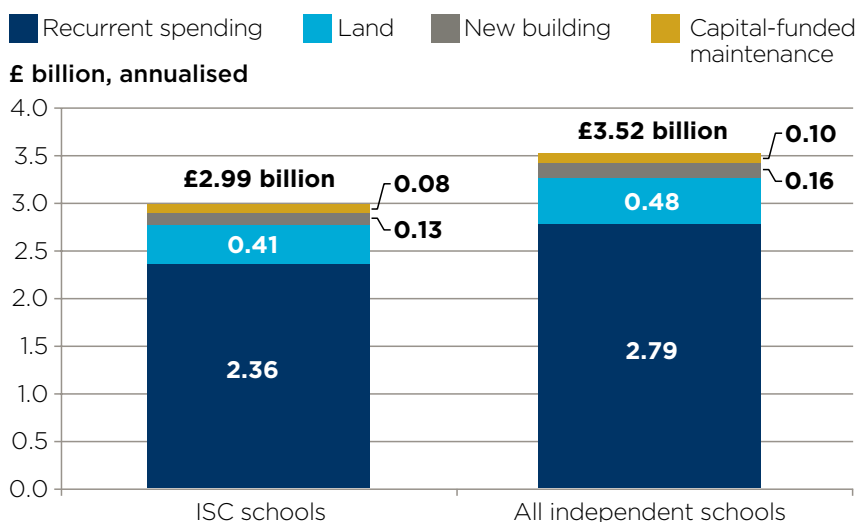
This supported 303,000 jobs and generated £4.12 billion in tax revenues.

In total, therefore, schools that are members of the ISC's constituent associations contributed £11.63 billion to the UK economy in 2017, supporting some 257,000 jobs and £3.50 billion of annual tax revenues in the process (see Fig. 1). This means that, for every £100 of GDP generated by the schools themselves, a further £92 was supported elsewhere in the economy—and for every four individuals employed by these schools in 2017, a further three jobs were supported in other sectors. The total ISC jobs contribution is similar to the number of jobs across the local authority areas of Liverpool, Belfast, or Cardiff, while the total tax impact would fund the wages of around 108,000 nurses.

Scaling our findings up to all independent schools in the UK, we estimate their total economic footprint for 2017 to be £13.71 billion in terms of GDP, supporting 303,000 jobs and £4.12 billion in tax revenue.

If independent school pupils took up the state school places to which they were entitled instead, then the British taxpayer would have to bear significant extra costs. We estimate that ISC schools alone save £2.99 billion per annum for the taxpayer, taking into account teaching and other recurrent costs, and capital costs associated with the use of land, construction of school buildings, and property maintenance (see Fig. 2). For all independent schools, the total taxpayer saving is around £3.52 billion per annum—and note that these figures are likely to understate the total taxpayer savings, as they do not take into account central administrative costs not included in the budgets of the schools.

Fig. 2: Annualised taxpayer cost savings due to independent schools



Source: Oxford Economics

£3.52 bn

Minimum amount that independent schools save British taxpayers each year.

The share of ISC schools in this saving is £2.99 billion.

£73 bn

Estimated shortfall in UK GDP in 2017, had independent schools ceased to exist in the late 1940s.

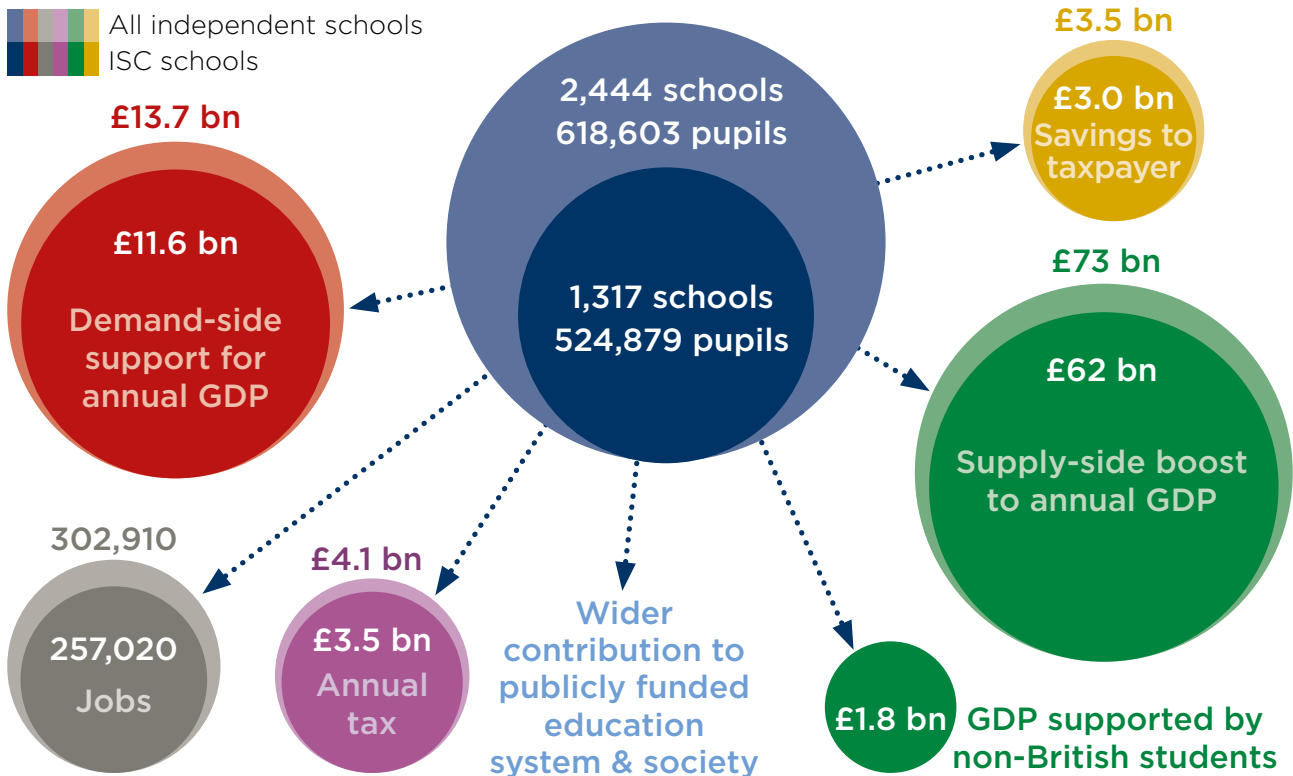
The ISC school share of this is around £62 billion.

Other ways in which independent schools contribute to wider UK society include provision of facilities to local state schools, and discounts on independent school fees. In 2017, 7.6 percent of pupils received a means-tested bursary, and the cost to the schools of discounts of all kinds was over £800 million.

Independent schools also boost the economy's long-term growth rate, by pulling up the average educational attainment level and by encouraging a focus on subjects such as science and mathematics. Based on OECD studies, we estimate that, had independent schools ceased to exist in the late 1940s, then UK GDP would have been £73 billion lower in 2017—a shortfall of 3.6 percent. The ISC school share of that value can be put at £62 billion.

Finally, the presence of non-British students underpins extra activity in the UK, due to their non-school expenditure, and that of their visitors. More importantly, the provision of high quality education to such students can make a significant contribution to the UK's "soft power" in the international relations field. The same will be true of the 3,000 or so British school campuses based overseas, which also generate income streams—in the region of £18 billion per annum in the global economy.

THE IMPACT OF INDEPENDENT SCHOOLS ON THE UK ECONOMY



THE ECONOMIC IMPACT OF THE ISC'S 1,317 SCHOOLS



CONTRIBUTION TO GDP, EMPLOYMENT AND NATIONAL TAX REVENUES

£11.6 BILLION

GVA contribution to UK GDP, which is greater than the £11.1 billion contribution of the UK's largest defence, aerospace and security company, BAE Systems. The contribution of non-British pupils is **£1.8 billion**.



£3.5 BILLION

annual tax revenues, equivalent to **£129** per UK household...



257,020 JOBS

which is similar to the total number of jobs across Liverpool.



...which is sufficient to fund the annual pay of

108,000

nurses.



SAVINGS TO THE TAXPAYER

£3.0 BILLION

annual savings to the taxpayer, enough to build **20,000** new affordable homes.



ADDITIONAL VALUE OF HIGH EDUCATIONAL PERFORMANCE

If ISC schools had not existed during the past 70 years, UK GDP could now be around

£62 BILLION

per annum lower.



1. INTRODUCTION

This report, prepared by Oxford Economics and commissioned by the ISC, examines the contribution that independent schools make to the UK economy. It updates the results of a previous study published in 2014.¹

The study focuses on three key elements of the wider economic benefit generated by independent schools. These are:

- The sector's contribution to national GDP, jobs and tax revenues, due to the activity taking place in the sector itself, activity in the supply chain stimulated by the schools' purchases of goods and services, and activity in the wider economy supported by the wage-funded spending of school and supply-chain staff.
- Savings for the British taxpayer, because most pupils at independent schools are entitled to, but do not take up, a place at a state school.
- The contribution to the economy's long-term underlying GDP growth rate.

The contribution to GDP, jobs, and tax revenues is referred to variously as the sector's "economic contribution", "economic impact", or "economic footprint".

1.1 THE INDEPENDENT SCHOOLS SECTOR

The main focus of this report is on the contribution to the UK economy of those independent schools that are members of ISC associations. The ISC comprises seven constituent associations of independent schools, their heads, bursars and governors.²

As of January 2018, 1,326 schools were members of ISC associations, with around 529,000 pupils enrolled (see Fig. 3). Of these, 1,317 were located in the UK, educating some 525,000 pupils, while the remaining nine were based in the Channel Islands and the Isle of Man.

There are many types of school in ISC membership, and they are found all over the country—although as set out in Appendix 1, compared with the distribution of state school pupils, ISC school pupils are somewhat more-heavily

concentrated in the South and East of England. Charitable status is held by 989 of these schools, with an additional 41 also operating on a not-for-profit basis, while 296 operate on a for-profit basis. Boarding school pupils account for 13 percent of all ISC school pupils; girls for 49 percent. The schools cater for children and teenagers, from pre-primary school age up to 19 years old.

ISC schools vary in size, with 32 having fewer than 51 pupils, and 80 having more than 1,000 (see Fig. 4). The average (mean) pupil size of these schools is 399, and 48 percent have 300 or fewer pupils.

In the UK, ISC schools account for some 85 percent of all pupils at independent schools (see Fig. 5). In turn, independent schools account for six percent of all UK school pupils.

Fig. 3: Schools in membership associations affiliated to the ISC

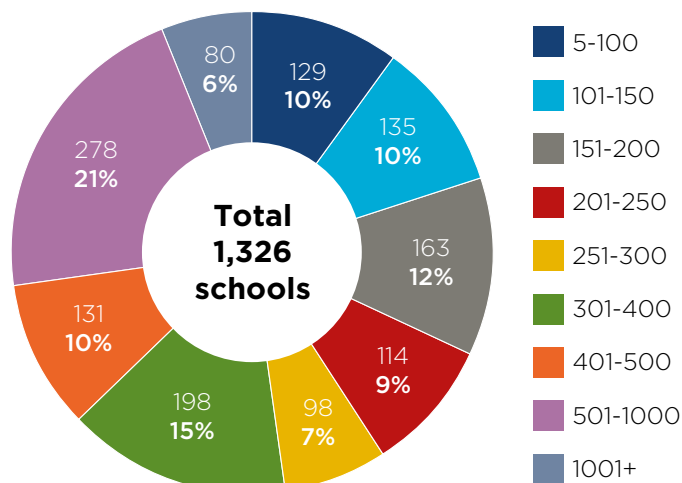
	Number of schools	Number of pupils
England	1,255	481,945
Scotland	32	24,432
Wales	20	7,611
Northern Ireland	10	10,891
Total UK	1,317	524,879
Channel Islands and Isle of Man	9	4,285
Overall total	1,326	529,164

Source: Independent Schools Council. The ISC school data are consistent with the ISC census and annual report 2018, and reflect the position in January 2018.

¹ Oxford Economics for the ISC, The impact of independent schools on the British economy, April 2014.

² The five heads associations are the Girls' Schools Association (GSA), the Headmasters' and Headmistresses' Conference (HMC), the Independent Association of Prep Schools (IAPS), the Independent Schools Association (ISA), and the Society of Heads. The Independent Schools' Bursars Association (ISBA), and the Association of Governing Bodies of Independent Schools (AGBIS), are also in membership. In addition, the ISC has four affiliate members, namely the Council of British International Schools (COBIS), the Boarding Schools' Association (BSA), the Scottish Council of Independent Schools (SCIS), and the Welsh Independent Schools Council (WISC).

Fig. 4: ISC schools ranked in terms of pupil size
Number and share of schools



Source: ISC, ISC census and annual report 2018

Fig. 5: Independent and state schools in the UK

	Number of schools	Number of pupils
ISC-affiliated schools	1,317	524,879
Other independent schools	1,127	93,724
Total independent schools	2,444	618,603
State schools	27,184	9,563,237
Total of all schools	29,628	10,181,840

Source: Independent Schools Council, Department for Education, and devolved bodies

1.2 SCOPE OF THE STUDY

This study covers the impact of the 1,317 ISC schools located in the UK. It therefore includes schools located in Northern Ireland, unlike the previous report which was confined to Great Britain.

For the economic footprint and taxpayer savings analysis, the starting point is income-per-pupil and cost-per-pupil data for the academic year ending in August 2017, or in some instances the fiscal year ending in March 2017. These data are then scaled to the number of ISC pupils at January 2018, to give the most up-to-date indication of the schools' ongoing impacts.

It is probably best to see these results as a broad indication of the sector's impact in calendar year 2017. Compared with that precise period, the

cost-per-pupil figures will be marginally understated, due to the impact of general price inflation. But this will be offset by the slight overstatement of pupil numbers, compared with the average for the calendar year (total ISC school pupils increased from 523,000 to 529,000 between January 2017 and January 2018).

The estimates are carefully constructed to take into account differences between type of school (e.g. junior, senior, or special), between regions, and (for the taxpayer savings analysis) between parents' nationality and country of residence. Estimates for the impact of all independent schools are also given, although these are simple extrapolations based on the ratio of pupil numbers at the national level.

1.3 REPORT STRUCTURE

The remainder of the report is structured as follows:

- Chapter 2 analyses the economic footprint, covering GDP, employment, and tax impacts, together with a summary of the other benefits provided by the sector to UK society.
- Chapter 3 is concerned with savings to the taxpayer.
- Chapter 4 covers the schools' educational outcomes and consequences for the nation's long-term economic performance.
- Appendix 1 looks at the regional distribution of schools, pupils, and impacts.
- Appendix 2 examines the impact of boarding school pupils.
- Appendix 3 highlights the impact of non-British pupils.

2. THE ECONOMIC FOOTPRINT OF INDEPENDENT SCHOOLS

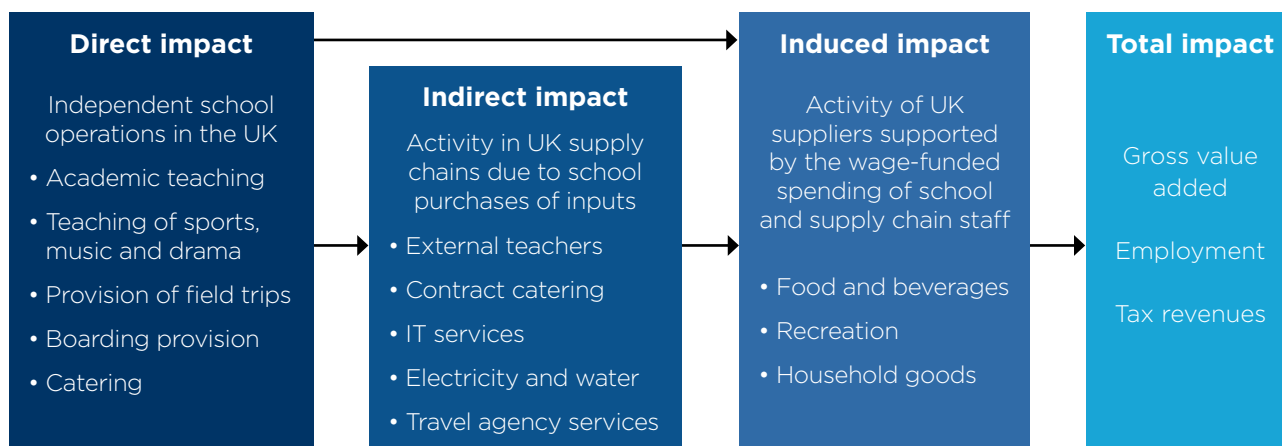
This chapter examines the impact of the independent schools sector on the UK's "gross value added" output (GVA), and also employment and tax revenues, due to the demand these schools support for domestically-produced goods and services of all kinds.³ It concludes with a summary of the other benefits provided by the sector to UK society, not captured by this footprint.

The economic impact assessment used here, to estimate the schools' footprint, analyses three different "channels" of impact (see Fig. 6):

- The "direct impact", relating to the economic activity of the independent schools sector itself.
- The "indirect impact", stimulated by the independent sector's procurement of goods and services from its UK supply chain.
- The "induced impact", which is the economic activity supported by teachers and other school workers, and staff in the schools' supply chain, spending their wages.

For schools that are members of the ISC's constituent associations, the total contribution to gross value added output, through all three impact channels, amounted to £11.63 billion in 2017.⁴ These schools supported 257,020 jobs and £3.50 billion of taxation (see Fig. 7). For all independent schools, the estimated impacts are £13.71 billion of gross value added output, 302,910 jobs, and £4.12 billion in tax revenues (see Fig. 8).⁵

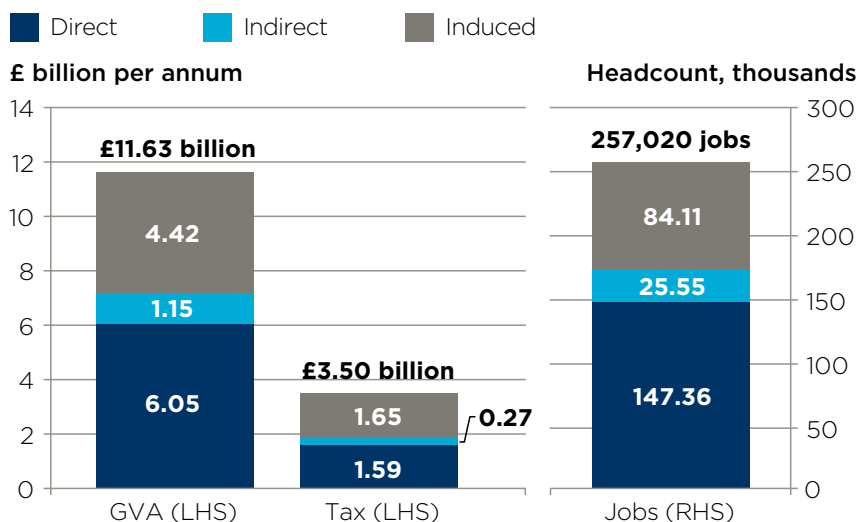
Fig. 6: A standard economic impact assessment model for independent schools



³ Gross value added is a net measure of output. It is similar to the headline measure of net output, gross domestic product (GDP), except that it is measured at the "basic" price received by the supplier, excluding taxes on sales such as VAT. GDP is measured at the "market" price paid by the purchaser, including those taxes. The gross value added of a business is equal to the sum of its employment costs, "production taxes", capital costs, and any net profit or surplus, where "production taxes" largely comprise business payments of property rates and vehicle excise duty. For most businesses, gross value added will be very similar to sales revenues net of purchases of goods and services from other firms.

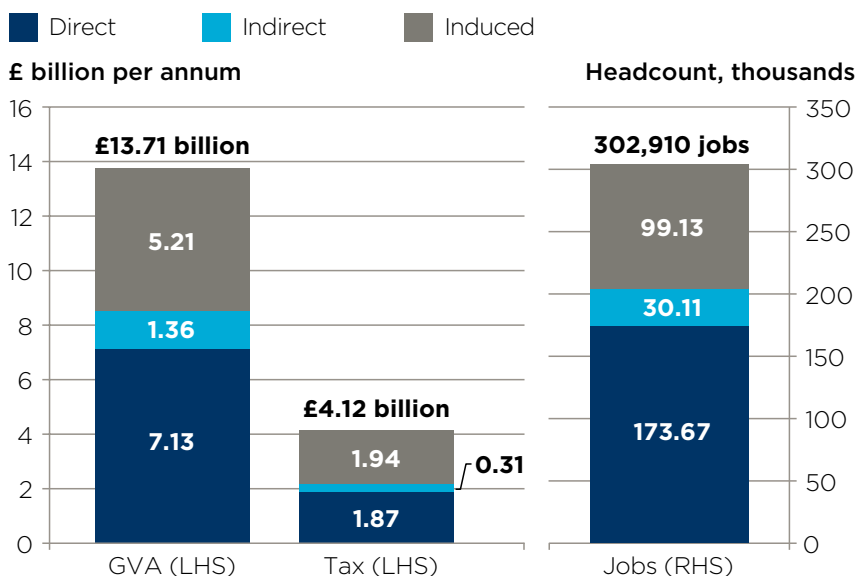
⁴ The results in this chapter should be seen as broadly representative of 2017. The starting point for the estimates is income-per-pupil and cost-per-pupil data, for a large sample of ISC schools, supplied by Baines Cutler Solutions Ltd, and relating to the academic year 2016-17. These are then scaled to total ISC pupil numbers, by region, as reported in January 2018 and published in the ISC census and annual report 2018.

⁵ Estimates for all independent schools are simply scaled up from the results for ISC schools, based on data for total independent school pupil numbers reported by the Department for Education and devolved bodies.

Fig. 7: The total economic footprint of ISC schools in 2017

Source: Oxford Economics

The total gross value added contribution to GDP of £11.63 billion from ISC schools in 2017 compares with the £9.5 billion estimated for 2012 in the previous exercise.⁶ The 2017 ISC jobs contribution of nearly 260,000 is similar in scale to the entire number of registered jobs in the local authority areas of Liverpool, Belfast, or Cardiff.⁷

Fig. 8: The total economic footprint of all independent schools in 2017

Source: Oxford Economics

⁶ Oxford Economics for the ISC, The impact of independent schools on the British economy, April 2014. That study excluded Northern Ireland, but as the Province accounts for only two percent of ISC school pupils in the UK, the results are still reasonably comparable.

⁷ Based on data for 2016 from the ONS Business Register Employment Survey, published in October 2017. These job numbers include all employees and working proprietors engaged in registered businesses, public bodies and charities, but exclude self-employed jobs other than those of working proprietors.

2.1 INCOME, COSTS AND DIRECT GDP

Data for income and costs per pupil, relating to a large sub-set of ISC schools on a region-by-region basis, were supplied to Oxford Economics by Baines Cutler Solutions Ltd, specifically for use in this project.⁸ These numbers were then scaled up to be representative of all ISC schools in the UK, separately for each region, based on total pupil numbers attending those schools as supplied by the Independent Schools Council.

Fig. 9 summarises the headline results. Income and spending relating to core school operations (excluding trading, fundraising, and financing activities) provided the starting point for our estimates of the 2017 economic footprint.

The operating cost numbers provided included a breakdown between employment costs, capital depreciation, and other (i.e. external) costs. This last cost grouping was broken down further by Oxford Economics into “production taxes”, imported supplies, taxes on products purchased (such as unrefunded VAT and road fuel duties), and amounts received by suppliers based in the UK. This was based on ratios in the government’s latest official input-output table.⁹ The most important “production tax” in the UK is business rates. However, this cost category is insignificant in this case, as the majority of independent schools are run on a charitable basis, and therefore qualify for rates relief.

The ISC schools are estimated to have made a £6.05 billion gross value added contribution to GDP in 2017 (see Fig. 10). For all independent schools, this contribution is estimated to be £7.13 billion. The vast majority of this direct GVA (87 percent) is accounted for by the ISC schools’ employment costs. In contrast, the net surplus on core operations is modest by the standards of the wider UK private sector, reflecting the not-for-profit model followed by the majority of ISC schools.

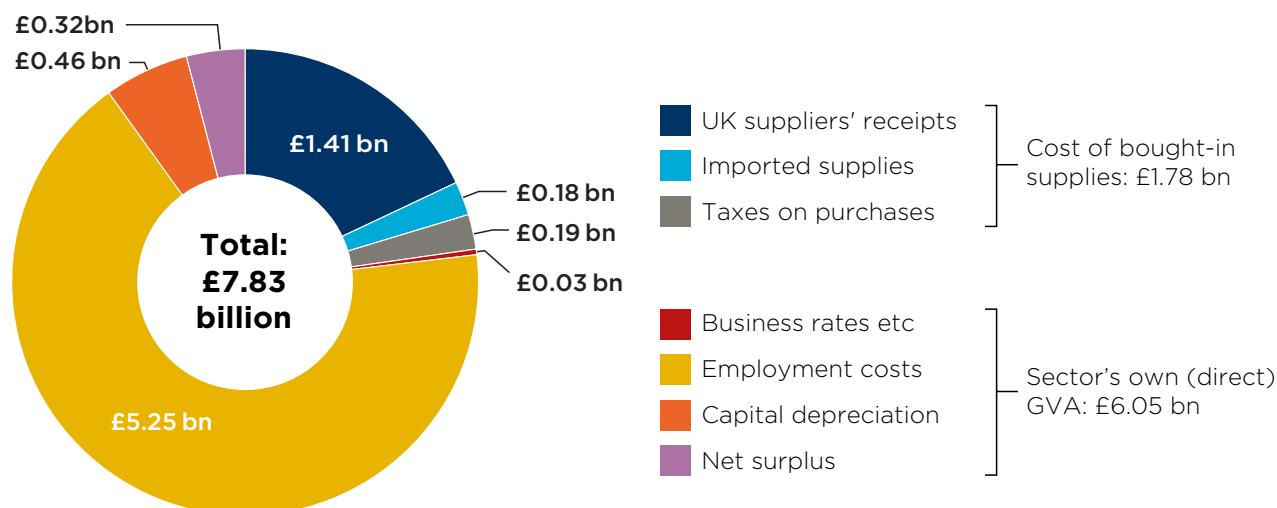
Fig. 9: Overview of income and costs in 2017, £ million

	Income	Costs	Net surplus
ISC schools			
Core school operations	7,834	7,517	317
Trading, fundraising and financing	476	233	244
Total of all activities	8,310	7,750	560
All independent schools			
Main school operations	9,233	8,860	373
Trading, fundraising and financing	561	274	287
Total of all activities	9,794	9,134	660

Source: Oxford Economics; Baines Cutler Solutions Ltd.

⁸ These numbers were provided for schools in Great Britain. Estimates for Northern Ireland were added by Oxford Economics, taking into account those figures, known pupil and teacher numbers, and data on cost differentials relating to the economies of Northern Ireland and Great Britain more broadly.

⁹ Office for National Statistics (ONS), United Kingdom input-output analytical tables 2014, published March 2018. The input-output table is a matrix showing transactions between different sectors of the economy. Separate ratios in the table for the non-profit education sector and commercial education sector were weighted together in accordance with the number of ISC schools having charitable and non-charitable status.

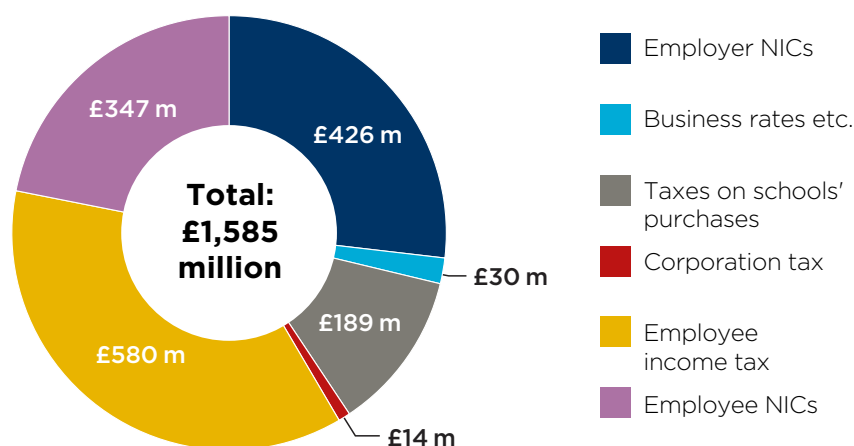
Fig. 10: Use of ISC school operating income by economic category in 2017

Source: Oxford Economics; Baines Cutler Solutions Ltd; ISC

The direct gross value added contribution made by ISC schools is similar in size to that made by the UK's "water transport" sector (including shipping), the "information services activities" sector (including web search portals as well as news agencies), and the "sports, amusement and recreation activities" sector.¹⁰

high as a share of the total cost of those purchases, as VAT paid cannot be reclaimed. National Insurance and income tax payments are also above-average per member of staff, reflecting the above-average salaries of the teaching staff.

Tax payments by ISC schools and their staff are estimated to have been £1.59 billion for 2017, with the direct tax contribution of all independent schools estimated at £1.87 billion (see Fig 11).¹¹ Corporation tax and business rates are modest, reflecting the not-for-profit aims and charitable status of most schools in the sector, while school fees do not attract VAT or any other sales tax. However, taxes on purchases of goods and services are comparatively

Fig. 11: Estimated tax payments by ISC schools in 2017

Source: Oxford Economics

¹⁰ Based on ONS, GDPo low-level aggregates, April 2018. The sectors are divisions 50, 63 and 93 respectively in the latest (2007) version of the UK Standard Industrial Classification.

¹¹ These are Oxford Economics estimates based on information about employment costs, other costs and surpluses, the number of staff, the schools' charitable status, and various parameters of the UK tax system. No specific information was collected about actual tax payments, and these figures should therefore be seen as indicative, rather than as a definitive statement of taxes paid. The direct tax contribution excludes taxes on employees' spending, but this is captured in the induced tax impact described further below.

2.2 DIRECT EMPLOYMENT AND STAFF REMUNERATION

Oxford Economics estimates that the total number of directly-employed ISC staff in 2017 amounted to 147,360.¹² These estimates take into account full-time equivalent numbers for teaching and non-teaching staff in the Baines Cutler Solutions Ltd sample of ISC schools; full-time, part-time and full-time equivalent teaching staff numbers for all ISC schools as found in the ISC census; and full-time-to-part-time ratios for total employment in the private junior- and senior-school sectors.^{13,14} Some 45 percent of these staff are teachers, with the remaining 55 percent in non-teaching roles (see Fig. 12).

The total number of directly-employed staff in ISC schools in the UK, at nearly 150,000, is similar to the number of registered jobs in the local authority areas of Derby, Northampton, or Kensington and Chelsea, and similar to the number of workers in the “sale of new cars and light goods motor vehicles” industry.¹⁵ The total number of directly-employed staff across all independent schools is calculated to have been 173,670 in 2017.

In addition, some 4,290 workers are estimated to have been employed by ISC schools as contract workers in catering roles, again using the Baines Cutler dataset as the starting point.¹⁶ These workers form part of the indirect rather than direct employment contribution, with the cost to the schools counted as part of the cost of bought-in supplies. However, their roles are essentially the same as those of directly-employed catering staff.

Fig. 12: Estimates of ISC school employment

ISC schools in the UK	Full-time workers	Part-time workers	Total workers	Full-time equivalent
Teaching staff	49,320	16,290	65,610	58,180
Non-teaching staff	38,680	43,070	81,750	62,110
Total directly-employed staff	88,000	59,360	147,360	120,290
Non-teaching contract workers	2,030	2,260	4,290	3,250
Total of all workers	90,030	61,620	151,650	123,540

Source: Oxford Economics; Baines Cutler Solutions Ltd; ISC

¹² All jobs numbers in this analysis are rounded to the nearest 10.

¹³ The ratios for the wider sector are sourced from the ONS Business Register Employment Survey.

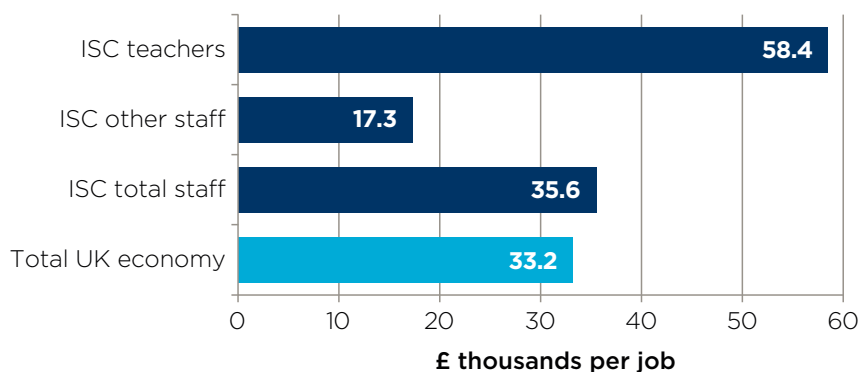
¹⁴ For non-teaching staff, each part-time job is counted as 0.54 of a full-time equivalent (FTE), in line with the implied ratio for teachers in the dataset provided by ISC.

¹⁵ Source: ONS Business Register Employment Survey. The comparator statistics relate to 2016. The vehicle sales industry is SIC 45.111 in the latest (2007) version of the UK Standard Industrial Classification.

¹⁶ FTE numbers were estimated first. The ratio of full-time to part-time workers, and the full-time equivalent of part-time work, were assumed to be in line with the values for directly-employed non-teaching staff.

The total employment cost per ISC school teacher (including salaries, employers' National Insurance, and employers' pension contributions) is estimated to have been some £58,400 in 2017, with the overall employment cost per staff member averaging around £35,600 (see Fig. 13). These figures are above the national average by 76 percent and seven percent respectively.¹⁷

Fig. 13: Employment costs per head



Source: Oxford Economics; Baines Cutler Solutions Ltd; ISC; ONS

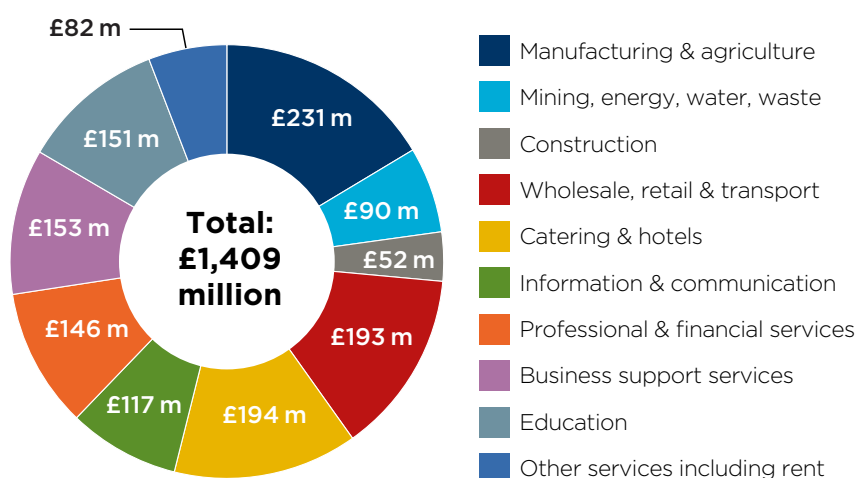
2.3 THE PATTERN OF PROCUREMENT AND INDIRECT IMPACTS

Having estimated the total value of payments to suppliers based in the UK (some £1.41 billion), Oxford Economics then broke that total down by industry sector. This was based on the pattern of transactions for the charitable and commercial education sectors in the ONS input-output table, but with adjustments to the proportions spent on catering services and outside education providers, to better reflect what we know about the schools sector more specifically.

On this basis, ISC schools are assumed to purchase goods and services from a wide range of industries, with around three-quarters of proceeds going to services providers of various kinds (see Fig. 14).¹⁸ Spending on the catering and hotels sector is mainly accounted for by payments to contract caterers, while spending on other

education providers relates to outside supply teachers, including self-employed sports and music teachers, for example. Note that these payments are modest relative to the £5.25 billion spent by the sector on its own, directly-employed staff.

Fig. 14: Value to UK suppliers of purchases by ISC schools in 2017, by industry



Source: Oxford Economics

¹⁷ The national average is based on UK employee compensation from the ONS GDP dataset, and UK employee jobs from the ONS labour market statistics dataset.

¹⁸ Information on the sectoral breakdown used in this chapter can be found in Fig. 15.

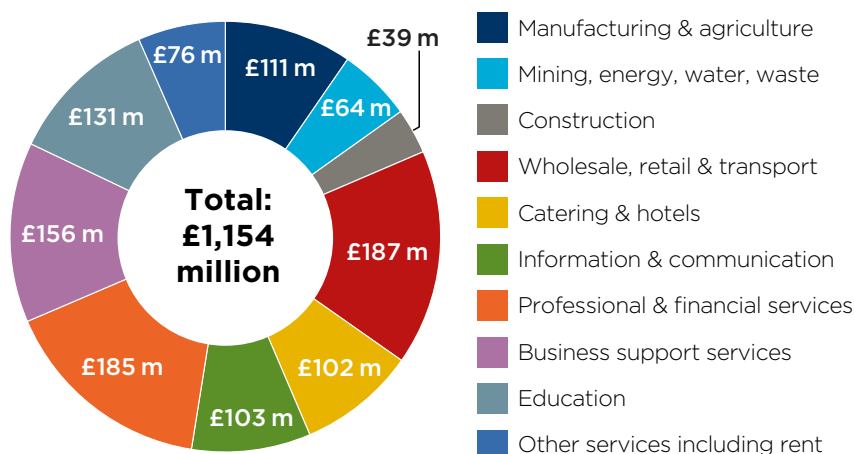
Fig. 15: The industrial sector breakdown used in this chapter

Sector in this report	Section in UK Standard Industrial Classification	Notes
Manufacturing & agriculture	Agriculture, forestry & fishing (A)	
	Manufacturing (C)	Includes repair & installation of machinery
Mining, energy, water, waste	Mining & quarrying (B)	
	Electricity & gas supply (D)	
	Water supply, sewerage and waste management (E)	
Construction	Construction (F)	The calculations exclude outlays classified as capital expenditure
Wholesale, retail & transport	Wholesale and retail trades; motor vehicle repair (G)	The values allocated to this sector include the amounts covering distributors' running costs and profits, but not the net cost of the goods concerned which is allocated to the sector of producer (e.g. manufacturing)
	Transportation & storage (H)	
Catering & hotels	Accommodation & food service activities (I)	Indirect impacts mainly relate to catering contract workers
Information & communication	Information & communication (J)	Includes telecommunications, computer-related services, broadcasting, publishing, and information services
Professional & financial services	Financial & insurance activities (K)	
	Professional, scientific and technical activities (M)	Includes legal work, accountancy, management consultancy, architectural and engineering consultancy, advertising, and design
Business support services	Administrative and support service activities (N)	Includes leasing of vehicles and machinery, employment agencies, travel agencies, security, cleaning of buildings, landscaping, office support, and other business support activities
Education	Education (P)	All staff directly employed by schools are counted here, whatever their role
Other services including rent	Real estate activities (L)	Mainly renting of property
	Public administration (O)	
	Human health & social work (Q)	
	Arts, entertainment & recreation (R)	Recreation includes libraries, museums, gambling, and sports
	Other service activities (S)	Includes membership organisations, repair of computers and household goods, and personal services such as hairdressing
	Activities of households as employers (T)	

To estimate the gross value added supported by ISC schools' procurement, the breakdown of spending with domestic suppliers was then combined with ratios in the input-output table. The indirect value added contribution is estimated to be £1.15 billion for ISC schools and £1.36 billion for all independent schools. The difference between the value of procurement from domestic suppliers, and the indirect gross value added impact, mainly reflects import content in those supplies (with a few further taxes on transactions accounting for the remaining difference).

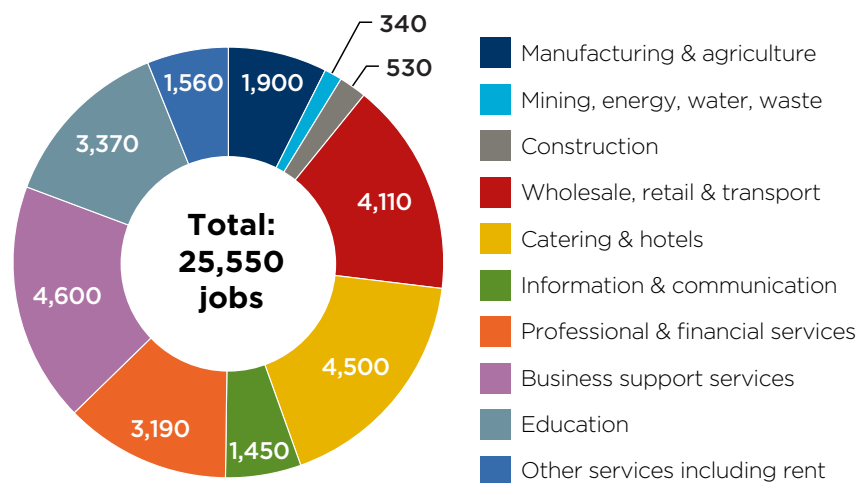
The ISC schools' procurement stimulates economic activity in a wide range of industries (see Fig. 16). Differences compared with the pattern of schools' payments to the "first round" of suppliers partly reflect differences in the role of import content. For example, manufactured products tend to have more import content than services, and this reduces manufacturers' share of the indirect GVA total, compared with the share of manufactured products in the procurement total. The pattern of indirect GVA is also influenced by transactions further along the supply chain. For example, just about all suppliers to the schools will in turn purchase professional services, boosting that sector's share in the indirect GVA total.

Fig. 16: Gross value added supported by ISC schools' procurement, by sector of supplier



Source: Oxford Economics

Fig. 17: Indirect employment of ISC schools by sector of supplier



Source: Oxford Economics

ISC schools' procurement supports 25,550 jobs along its UK supply chain, while the estimate for all independent schools is 30,110 jobs. These jobs are spread across a wide range of industries (see Fig. 17).

Differences between the pattern of indirect value added and that of indirect jobs reflect variations in GVA per job—a crude measure of labour productivity—between sectors of the economy. For example, GVA per job is comparatively high in the energy supply and professional services sectors, so those sectors' share of the indirect jobs impact is low compared with their share of the indirect gross value added impact. The opposite applies

in the case of, for example, catering and hotels, and business support services.

The indirect tax impact of ISC schools in 2017 is calculated to be £0.27 billion (£0.31 billion for all independent schools). The ISC-related payments comprise £57 million of employer NICs; £86 million of taxes on business purchases, property and profits; and £122 million of employee income tax and NICs.

2.4 INDUCED IMPACTS

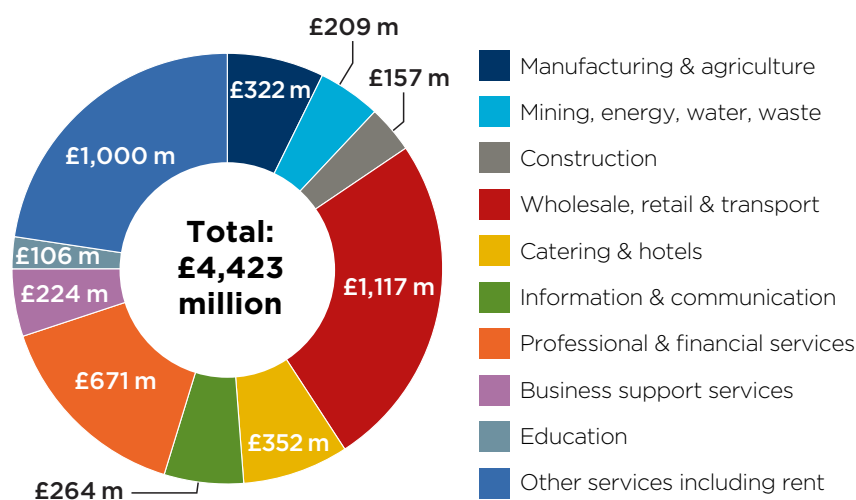
Induced impacts reflect the economic activity in the UK that is ultimately supported by the wage-funded expenditure of workers in the independent schools sector—and in its supply chain, to the extent that those wages are ultimately financed by the schools' purchases of goods and services.

ISC schools' induced impact is estimated to support a £4.42 billion gross value added contribution to GDP, while the figure for all independent schools is put at £5.21 billion. The direct-indirect-induced value added pattern is, therefore, somewhat unusual by UK standards: relative to

the direct impact, the induced impact is unusually high, and the indirect impact rather low. This reflects the high share of the schools' total operating income taken up by employment costs, and the comparatively modest shares taken by purchases of bought-in supplies, capital costs, and profits.

The effect of spending by ISC school staff, and that of spending by staff in the supply chain, is modelled separately, with the resulting values then added together to arrive at the total induced impact. The modelling takes into account the share of workers' take-home pay in each sector's gross value added, and the pattern of UK household expenditure by product type and location of supplier, as found in the input-output table.¹⁹

Fig.18: ISC schools' induced value added by sector of supplier



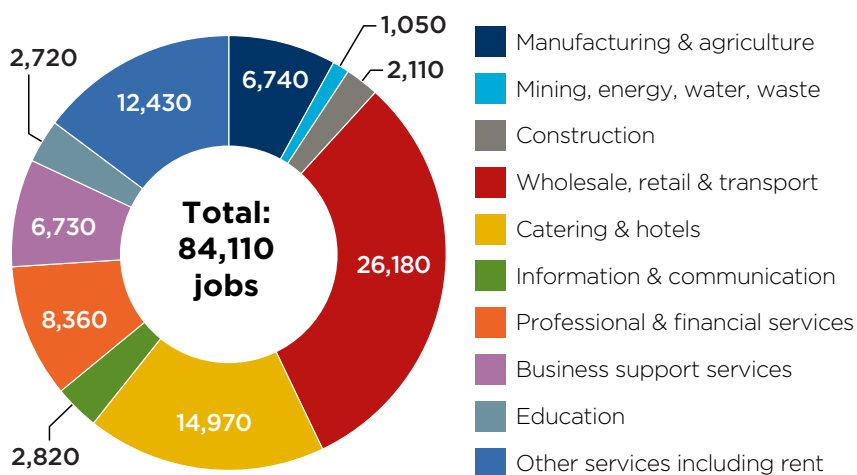
Source: Oxford Economics

The industries that benefit the most from the payment of wages by ISC schools and firms in their supply chain are varied (see Fig. 18). The pattern is very different to that of the indirect impact, as it is driven in the first instance by household rather than business expenditure (although business-to-business transactions further up the supply chain are also taken into account).

Retail, wholesale and transport activities account for the largest slice of the induced gross value added contribution (at 25 percent), with this mainly relating to retailers' and wholesalers' employment costs and profits. Financial services are also significant here, and account for the majority of the professional and financial services category (whereas the opposite is true in the case of the indirect impact). And the value added of other services (at 23 percent) is boosted by the property rental activity included in this category.

The payment of wages by ISC schools and firms in their supply chain is estimated to support 84,110 jobs. The figure for all independent schools is 99,130 jobs. Relative to the induced gross value added impact, wholesale, retail and transport services (at 26,180 jobs), and catering and hotel services (at 14,970 jobs) are more important, reflecting the labour-intensive nature of much of that work (see

Fig. 19: Induced employment of ISC schools by sector of supplier



Source: Oxford Economics

Fig. 19). Professional and financial services, and the other services category which includes property rental, are less important.

The induced tax contribution, meanwhile, is put at £1.65 billion for ISC schools, and at £1.94 billion for all independent schools. Employer NICs account for £165 million of the ISC-related total; taxes on business purchases, property and profits for £418 million; employee tax and NICs for £348 million; and taxes on the consumer spending of employees for £717 million.²⁰

²⁰ Note that all taxes on employee spending are allocated to the "induced" tax impact in this analysis. This will boost the apparent share of the induced channel in the total tax impact, compared with an alternative approach in which these taxes were allocated instead to the channel in which the employee works.

2.5 TOTAL ECONOMIC FOOTPRINT

Taking all three channels together, the total gross value added contribution to GDP from ISC schools in 2017 amounts to £11.63 billion, equivalent to 0.7 percent of the UK's economic output that year.²¹ The value added of the schools themselves accounts for 52 percent of the total impact, with the remainder spread across a wide range of sectors (Fig. 20). This means that, for every £100 worth of value added activity in ISC schools, a further £92 is supported across the rest of the economy. The total gross value added contribution of all independent schools is estimated to have been around £13.71 billion.

ISC schools are estimated to have supported 257,020 jobs in 2017, equivalent to 0.7 percent of all employee and self-employed jobs across the UK.²² ISC schools themselves accounted for 57 percent of the total, so that for every four jobs in these schools, a further three are supported elsewhere in the UK (see Fig. 21). The labour-intensive, consumer-facing sectors of wholesale, retail and transport (12 percent of the total impact), and catering and hotel services (eight percent), were the most important in terms of the jobs supported through the indirect and induced channels.

The total number of jobs supported by all independent schools in the UK in 2017 is estimated to have been 302,910.

Fig. 20: Total gross value added contribution of ISC schools, by sector of activity

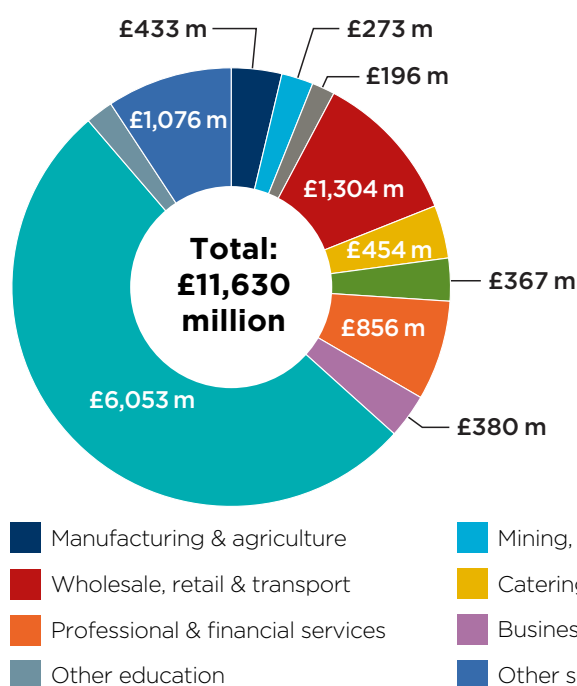
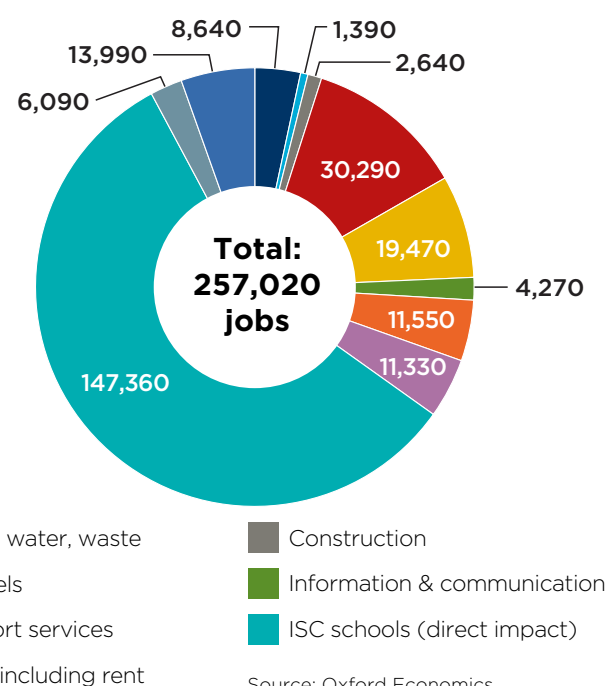
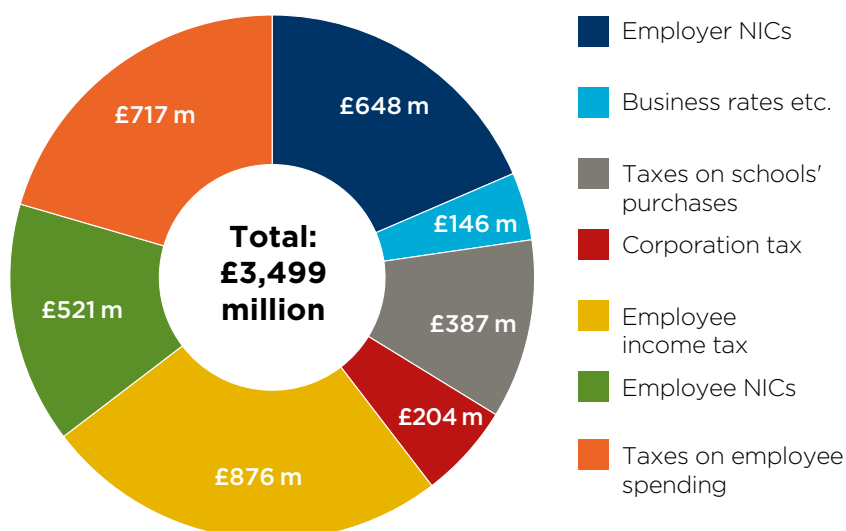


Fig. 21: Total jobs contribution of ISC schools, by sector of activity



Source: Oxford Economics

Fig. 22: Total tax contribution of ISC schools, by type of tax

Source: Oxford Economics

Finally, the total tax impact of ISC schools is calculated to have been £3.5 billion in 2017. This is equivalent to 0.5 percent of all UK tax and social security revenues collected in that year, and would have been sufficient to fund the annual employment of 108,000 nurses on average full-time pay.²³ Employer NICs account for £648 million of this total; taxes on business purchases, property and profits for £737 million; employee tax and NICs for £1.40 billion; and taxes on employee spending for £717 million (see Fig. 22). The total tax contribution of all independent schools in 2017 is calculated to have been £4.12 billion.

2.6 ADDITIONAL BENEFITS PROVIDED BY INDEPENDENT SCHOOLS

In addition to the economic footprint of ISC schools, quantified above, these schools provide a wide range of other benefits to the UK economy and society, some of which are quantifiable, and some less so.

2.6.1 Contribution to the public sector and wider community

As well as helping to generate UK tax revenues (as captured in Fig. 22), the schools save money for the UK taxpayer by providing school places for British pupils who could otherwise be expected to take up a place in the state-funded sector, as will be discussed in Chapter 3. In addition, they contribute directly to their local communities in a variety of ways, including through partnerships with

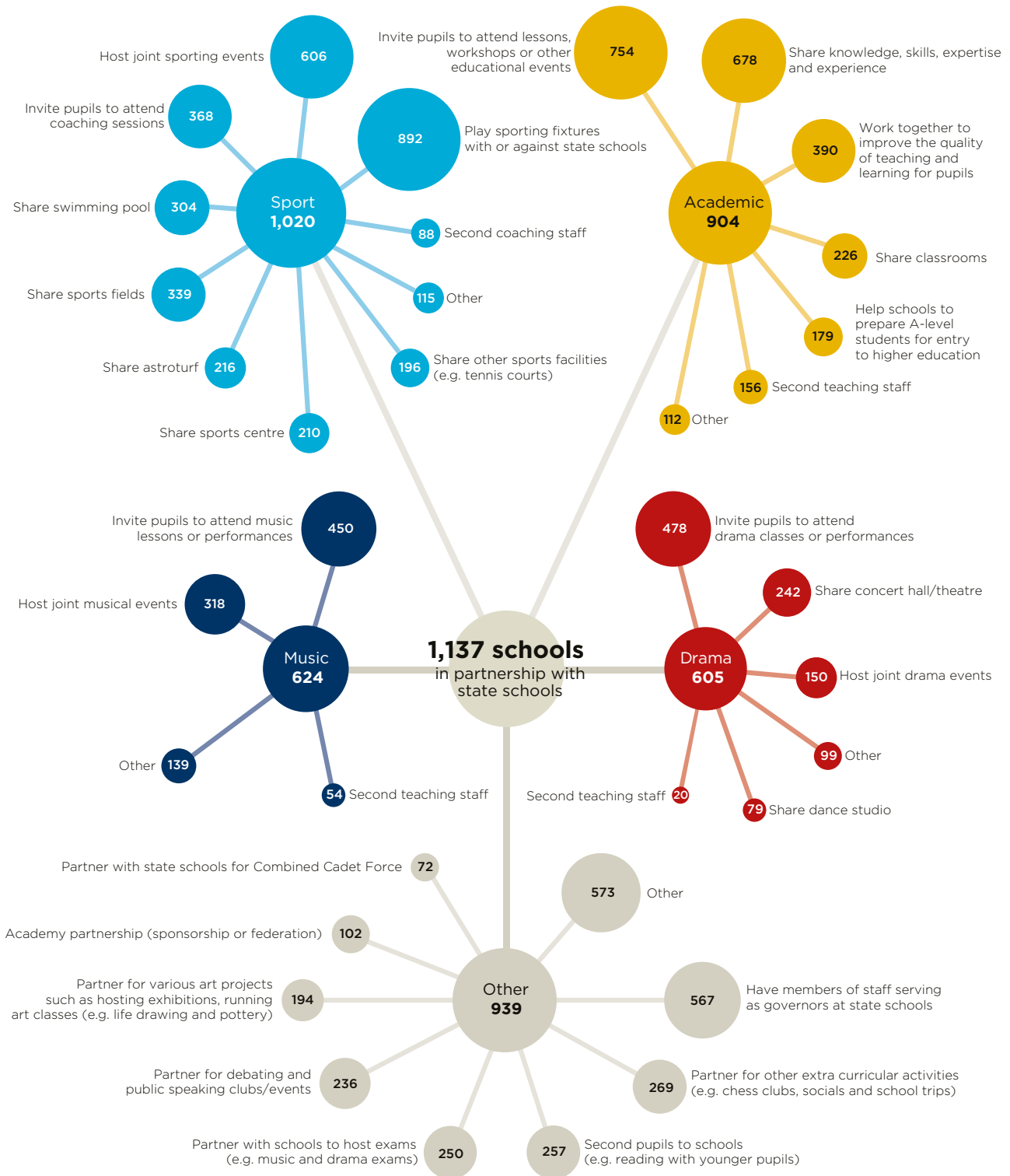
state schools. This can include sharing of classrooms, and of IT, sports and catering facilities, as well as seconding teaching staff and sponsoring state academies.²⁴ As of early 2018, 1,137 ISC schools were engaged in partnerships with state schools. As illustrated by Fig. 23, these partnerships range across the sports, academic, music, drama, and other fields.

Source: Independent Schools Council

²³ Based on the average gross annual pay of a full-time nurse (occupation code 2231) reported in April 2017. Source: ONS Annual Survey of Hours and Earnings ("ASHE"), published October 2017.

²⁴ Chapter 6 in the previous report describes provision of this kind in much greater detail. See Oxford Economics for the ISC, The impact of independent schools on the British economy, April 2014.

Fig. 23. ISC school partnerships with local state schools



Furthermore, 27.8 percent of ISC school pupils receive a school-funded contribution to, or discount on, their fees, with 7.6 percent—over 40,000—receiving a means-tested bursary.²⁵ Around 5,650 pupils qualifying for a means-tested bursary, or 1.1 percent of all ISC school pupils, have 100 percent of the cost funded by the schools.

These school contributions to fees reduce the net income of the ISC sector in the UK by over £800 million annually. This reduces the measured economic footprint of the schools, as captured above. But this money will be available for the families—or in some cases the state—to spend instead. The contributions may well allow some pupils from families on modest incomes to enjoy a higher quality of education than otherwise available, but without the serious squeeze on family living standards that the independent school option would entail in those cases, in the absence of financial help.

2.6.2 Contribution to the UK's long-term GDP growth rate

As will be set out in Chapter 4, the existence of independent schools boosts the UK's underlying growth rate, by improving average educational attainment, and by encouraging a greater-than-average focus on those subjects (such as mathematics and science) that are most in demand by employers of graduates.

The benefit of this added value is by no means confined to the extra rewards subsequently enjoyed by the independent school pupils themselves. Future employers, colleagues, and other work contacts also stand to benefit, due to the so-called “positive spillover effects” of enhancements to the knowledge and skills base. And more tax will be raised.

2.6.3 Contribution of international pupils at UK independent schools

As of early 2018, some 10.2 percent of all pupils at ISC schools were non-British.²⁶ Within that total, 4.8 percent had parents living in the UK, while 5.4 percent had parents based overseas.

As is set out in Appendix 3, the latter group will support a modest amount of extra demand for UK goods and services, on top of the contribution captured in the ISC schools' own economic footprint, due to their non-school fee expenditure, and due to the spending of friends and family visiting from abroad.

Furthermore, some international students attending UK universities may have been influenced to choose that option by their prior attendance at a UK-based school. These students will continue to benefit the UK economy in similar ways

to school pupils—except that, if anything, their spending power will be greater.

But perhaps most importantly of all, the provision of high-quality education by UK-based schools, to international pupils, can make a significant contribution to the UK's “soft power” in the international relations field. Many influential international figures studied at UK-based schools, and their experience may well make them more favourable towards UK interests. Examples of UK independent school alumni include the founder of modern India, Jawaharlal Nehru, and King Hussein of Jordan. Jacek Rostowski (Polish Finance Minister, 2007-13), Abhisit Vejjajiva (Thai Prime Minister, 2008-11), and Majid Jafar (CEO of Crescent Petroleum), were also educated at UK independent schools.

²⁵ ISC census and annual report 2018.

²⁶ ISC census and annual report 2018.

2.6.4 Contribution of British schools located overseas

Finally, ISC schools operate some 47 campuses overseas, with over 32,000 pupils enrolled. As the ISC's latest census and annual report states, these account for only a small part of the landscape of British schools overseas, with more than 3,000 such schools in operation worldwide, according to the International Schools Consultancy.

We do not have direct financial data on British schools overseas. But assuming 3,000 school campuses, with an average of 400 pupils each (the average for ISC schools in the UK), and the same income-per-pupil and cost-per-pupil ratios as for ISC schools in the UK, then the total worldwide income of these schools would be in the region of £17.9 billion per annum, allowing for:

- A global net financial surplus of £0.7 billion, potentially available to be repatriated to the UK.
- Some £12.0 billion in annual remuneration for staff, many of whom are likely to be British nationals.
- Some £0.4 billion in spending on imported goods and services, some of which are likely to be sourced from UK suppliers.

In addition, these schools provide experience for teachers who subsequently come to, or return to, the UK-based education sector. And perhaps most importantly of all, the provision to international students of high-quality education, based on the British system, could add considerable weight to the UK's "soft power" in the international relations field.

3. SAVINGS TO THE TAXPAYER

This chapter analyses the savings for the UK taxpayer that come as a result of pupils entitled to free state school education attending independent schools instead. All British children, and (for the time being) children of other EEA nationals residing in the UK, are entitled to free state education, provided they fall within the standard age range for primary, secondary, or sixth-form education. However, the contribution of the UK government towards the education of pupils attending independent schools is a small fraction of the per-pupil cost of state provision.

We first look at the number of pupils involved, followed by the main cost savings that can be quantified—i.e. schools' recurrent spending, and the capital costs associated with the provision of extra school places and building maintenance. We then describe the scope for additional savings relating to state provision of education-related central services, including administration and regulation, although these are more difficult to quantify.

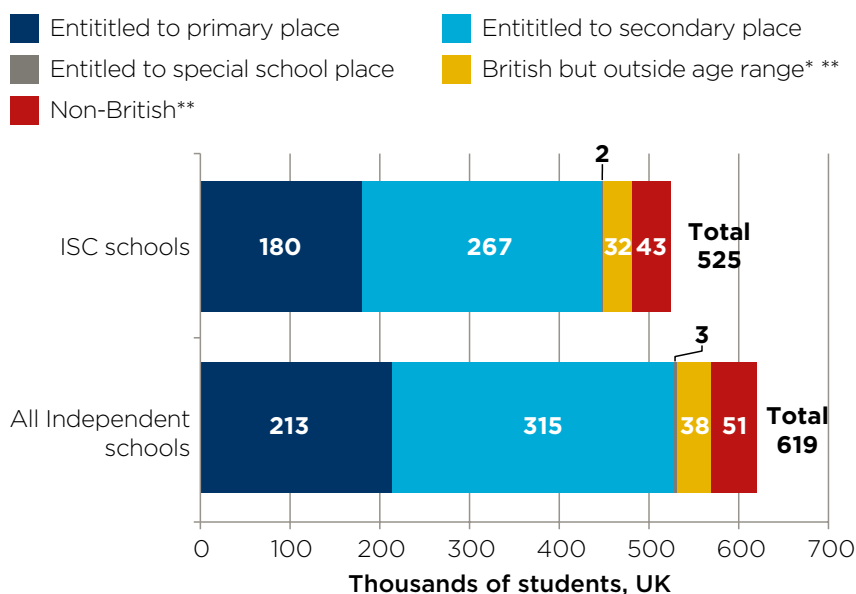
3.1 NUMBERS ENTITLED TO FREE STATE EDUCATION

The ISC data show some 525,000 pupils in total attending independent schools that are members of the Council's associations and located in the UK. Of these pupils, some 482,000 are British or the children of other EEA nationals residing in the UK—of which, some 450,000 are of an age that entitles them to free state schooling (Fig. 24).^{27,28}

The corresponding figure for all independent schools located in the UK is around 530,000.²⁹

The starting point for these estimates is the total number of pupils at ISC schools across the UK, Channel Islands and the Isle of Man, split by country and region, from the 2018 ISC Census, and other data supplied by ISC consistent with that dataset.³⁰ In the Census, the total is also split by age on the eve of the school year, with non-British pupils identified and broken down by parents' place of residence, and the nationality of UK-resident non-British parents also shown. The estimates take this pattern into account, together with differences between the age profile of pupils with parents residing in the UK, and those with parents living overseas.

Fig. 24: Independent school pupils: state schooling entitlement status



* Under 4, or 18 or over, on 31 August prior to the school year.

** Pupils with UK-resident EEA parents are counted as 'British' here.

Source: Oxford Economics

²⁷ That is, of primary school, secondary school, or sixth form age, i.e. 4-17 inclusive on the eve of the school year, 31st August.

²⁸ Most of the remainder were under four on the eve of the school year. As Early Years Funding helps to meet the independent school fees of many children in this category, any net saving to the taxpayer in respect of this group (reflecting untaken entitlement to state-funded childcare) is likely to be very modest.

²⁹ The estimates for all independent schools in this chapter are simply scaled up from those for ISC schools, based on the ratio of UK pupil numbers. ISC school pupils account for around 85 percent of all independent school pupils.

³⁰ ISC census and annual report 2018.

Of those entitled to free state schooling, but attending an ISC school in the UK, 181,000 were of primary school age, and 269,000 of secondary school age (including sixth form). But a small proportion of each group might have attended a “special school” instead, had they been educated in the state sector. To estimate this, the starting point is the 79,000 ISC school pupils with a special educational need or disability (SEND), of which some 3,000 were statemented.³¹ We then assume that 48 percent of statemented pupils, and 1.4 percent of other SEND pupils, would have attended a special school, in line with existing ratios for England.³² The age, nationality, school location, and parental residence pattern of these pupils is assumed to match that of the overall total.

For ISC schools, it is therefore estimated that around 180,000 entitled pupils could have attended a state junior school, 267,000 a state senior school, and 2,000 a state special school. The total for all independent schools is assumed to be split in the same proportion as that for ISC schools.

3.2 TOTAL QUANTIFIABLE TAXPAYER SAVINGS

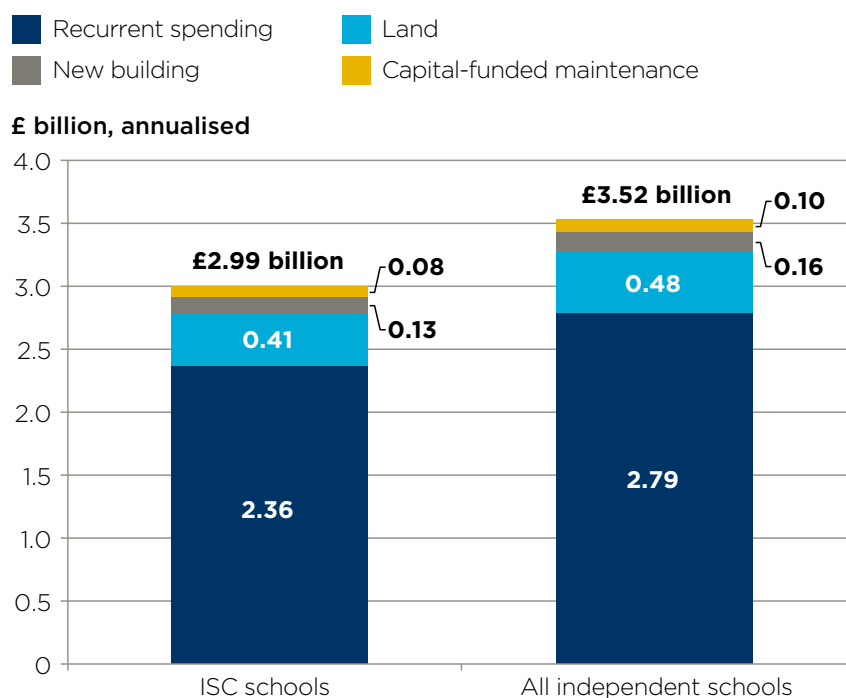
The taxpayer savings per pupil that can be quantified are assumed to be in line with existing per-pupil spending by state-funded schools, estimated on a region-by-region basis and adjusted to reflect differences in the income and needs profiles of the families. This total in turn comprises recurrent (“day-to-day”) expenditure, together with three types of capital outlay, namely:

- The cost of using land for additional state-school places.
- The cost of building new schools to provide the extra school places.

- Subsequent building maintenance costs, where these are funded out of capital budgets.

Taking all four of these cost categories together, we estimate that the total saving to the taxpayer, in respect of ISC school pupils in the UK, amounted to £3.0 billion in 2017 (see Fig. 25).^{33,34} The corresponding figure for all independent schools is calculated to have been £3.5 billion. These amounts are equivalent to 3.4% and 4.0% of total state spending on education in the UK in that year, or £6,640 per pupil.

Fig. 25: Annualised taxpayer cost savings due to independent schools



Source: Oxford Economics

³¹ i.e. entitled to a plan for those needing extra help.

³² Department for Education, Special educational needs in England: January 2017. For the purposes of this calculation, SEND pupils attending pupil referral units are included in the “special school” category.

³³ The estimates in this chapter should be seen as broadly representative of the picture in 2017. The starting point is provided by various official cost-per-pupil datasets, either for the academic year ending in August 2017, or for the fiscal year ending in March 2017. However, these per-pupil estimates are scaled up to the total number of ISC pupils, by region, as reported in January 2018 and published in the ISC census and annual report 2018.

³⁴ These estimates have been worked out using a more refined methodology than in the 2014 report, and so are not on a comparable basis.

3.3 SAVINGS RELATING TO RECURRENT SPENDING

ISC school-related savings on recurrent spending are estimated at £2.36 billion, or £5,253 per pupil, in 2017 (see Fig. 26). These estimates take into account actual spending by state-funded schools in 2016-17, separately for junior, senior, and special schools, and separately for Scotland, Wales, Northern Ireland, and the nine English regions.³⁵ The costs are net of school income from non-state sources, and adjusted to take into account differences in income and needs profiles, as well as state contributions towards independent school fees.

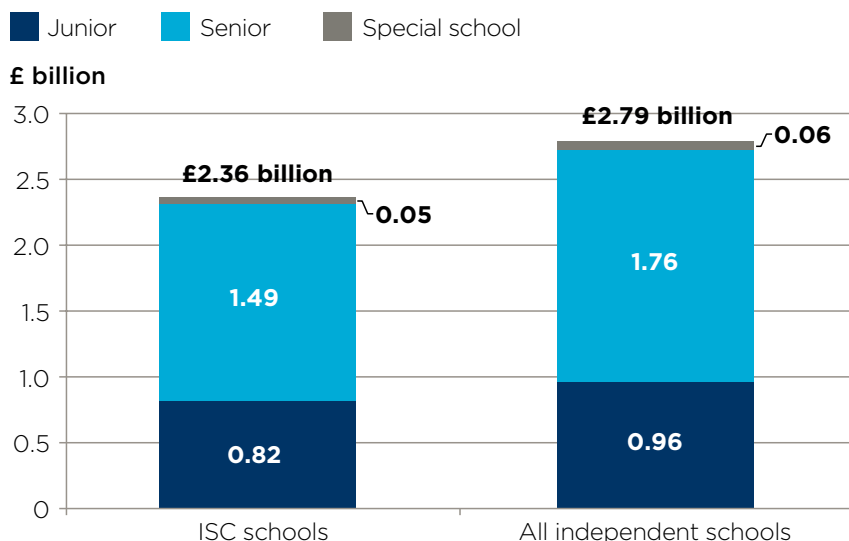
Separate datasets are used relating to:

- Local authority-maintained schools in England.³⁶
- State-funded academies in England.³⁷
- State school pupil numbers in Scotland.³⁸
- State-funded spending on schools in Scotland.³⁹
- State-funded schools in Wales.⁴⁰
- State school pupil numbers in Northern Ireland.⁴¹
- State-funded spending on schools in Northern Ireland.⁴²

The cost savings relating to ISC schools break down as follows:

- £0.82 billion for pupils who would otherwise attend a state junior school, or £4,540 per pupil.
- £1.49 billion for those who would otherwise attend a state senior school, or £5,580 per pupil.
- £0.05 billion for those who would otherwise attend a state special school, or £23,740 per pupil.

Fig. 26: Taxpayer savings relating to recurrent spending on schools



Source: Oxford Economics

³⁵ Nursery schools are excluded, while pupil referral units are included with special schools.

³⁶ Department for Education, Expenditure by Local Authorities and Schools on Education, Children and Young People's Services in England, 2016-17. The majority of English junior and special schools are in this category.

³⁷ Department for Education, Income and Expenditure in Academies in England: 2015 to 2016. These figures cover free schools, city technology colleges, university technical colleges, and studio schools, as well as "academies". The majority of English senior schools are in this category. The data were adjusted to 2016-17 by assuming that per-pupil spending for each school type grew in line with that for local authority-funded schools.

³⁸ Scottish Government Learning Directorate, September 2016 Pupil Census.

³⁹ These figures were interpolated by Oxford Economics using data for slightly broader education functions in Scottish Government, Government expenditure and revenues Scotland 2016-17 ("GERS"), and in HM Treasury, Public Expenditure Statistical Analyses 2017 ("PESA"), together with ratios found to apply in England.

⁴⁰ Welsh Government, Statistics for Wales, Key Education Statistics Wales 2017. The data relate to 2015-16 and were adjusted to 2016-17 in line with changes in per-pupil spend in English local authority-maintained schools.

⁴¹ Northern Ireland Department of Education, Annual enrolments at schools and in funded pre-school education in Northern Ireland, 2016/17, Statistical Bulletin 2/2017, revised version published February 2018.

⁴² These figures were interpolated by Oxford Economics using data for slightly broader education functions in HM Treasury, Public Expenditure Statistical Analyses 2017 ("PESA"), together with ratios found to apply in England.

The per-pupil cost is worked out as follows, and as set out in Fig. 27.

Excluding nursery schools and net of non-state-funded school income, total state recurrent spending per pupil in the UK in 2016-17 was around £5,578. This includes the cost of the “pupil premium”, which varies from one school to the next depending on the specific family circumstances of its pupils.⁴³ Excluding the premium payments, the cost per state pupil is around £5,309.

The potential cost to the taxpayer, if all eligible ISC school pupils took a state school place, would be £5,289 per pupil, excluding premium payments. This estimate takes into account the regional

distribution and type of school. Compared with the per-pupil cost for existing state school pupils, this figure is pushed up by the slightly greater-than-average share of pupils in London, where per-pupil state costs are above average. But this effect is offset by the comparatively low share of ISC pupils in Scotland, where spending per state pupil is also above average, and by the smaller proportion of pupils potentially eligible for a special school place.⁴⁴

(For England, outside of London, state funding per pupil does not vary that much by region, so the relative concentration of ISC pupils in the South and East makes little difference to estimate of recurrent cost savings.)

Two further adjustments are then applied. The estimated cost of the premium for ISC school pupils is added back, based on an assumption that all of those receiving means-tested bursaries, covering 100 percent of their fees, would qualify for the most basic type of premium if they attended a state school. Government contributions to fees for relevant ISC school students are then deducted, to arrive at an overall per-pupil cost saving of £5,253.

Fig. 27: Derivation of taxpayer savings per pupil

Estimates based on state spending in 2016-17	£ per pupil
Average recurrent spending per UK state school pupil ¹	5,578
Deduct: pupil premium funding averaged across all pupils	269
Average state recurrent spending excluding pupil premium	5,309
Potential recurrent spending excluding premium: ISC pupils ²	5,289
Add: potential pupil premium per ISC school pupil ³	13
Deduct: present government funding for ISC school pupils ⁴	50
Savings on recurrent state spending per ISC pupil	5,253

1. Excluding nursery schools. Net of non-state-funded school income.

2. After adjusting for the regional pattern and type of school.

3. Assumes those receiving means-tested bursaries, covering 100% of fees, would qualify for the “deprivation pupil premium”.

4. Local authority contributions to school fees and the Government Music and Dance Scheme. Excludes Early Years Funding for 3-4-year-olds.

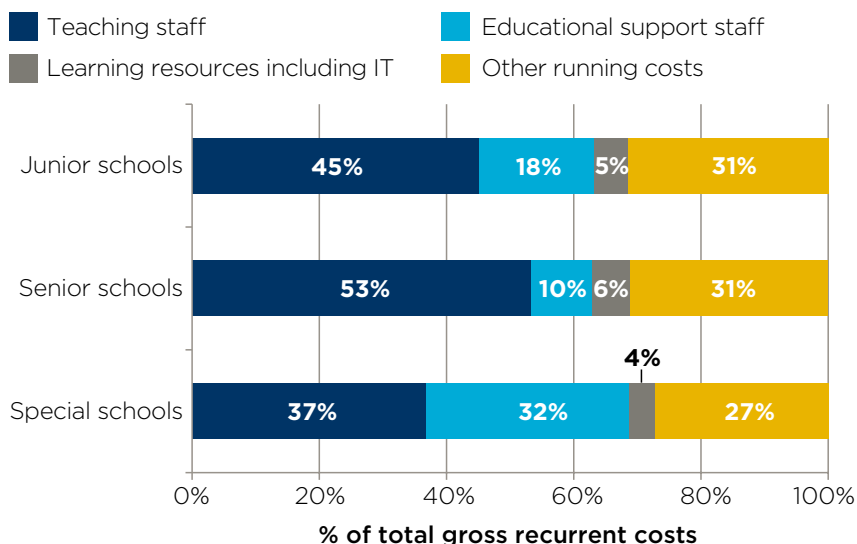
Source: Oxford Economics, based on various official sources as described in the text

⁴³ This is extra funding made available to schools in England relating to the number and type of disadvantaged pupils.

⁴⁴ Although the overall share of SEND pupils in the total is similar in the independent and state sectors, at around 15 percent, the proportion who are “statemented”, and therefore most likely to attend a special school, is lower for independent schools than for state schools.

The costs covered include those relating to teaching staff, educational support staff, IT facilities, and other learning resources, as well as other running expenses (mainly relating to premises, back office, and catering activities). Gross recurrent expenditure in the state sector varies by broad category for each type of school (see Fig. 28).⁴⁵ For mainstream schools, just under 70 percent of recurrent costs relate to teaching and educational support staff, IT facilities, and other learning resources. The remaining 30 percent or so covers other running costs.

Fig. 28: Breakdown of recurrent state school spending by broad category



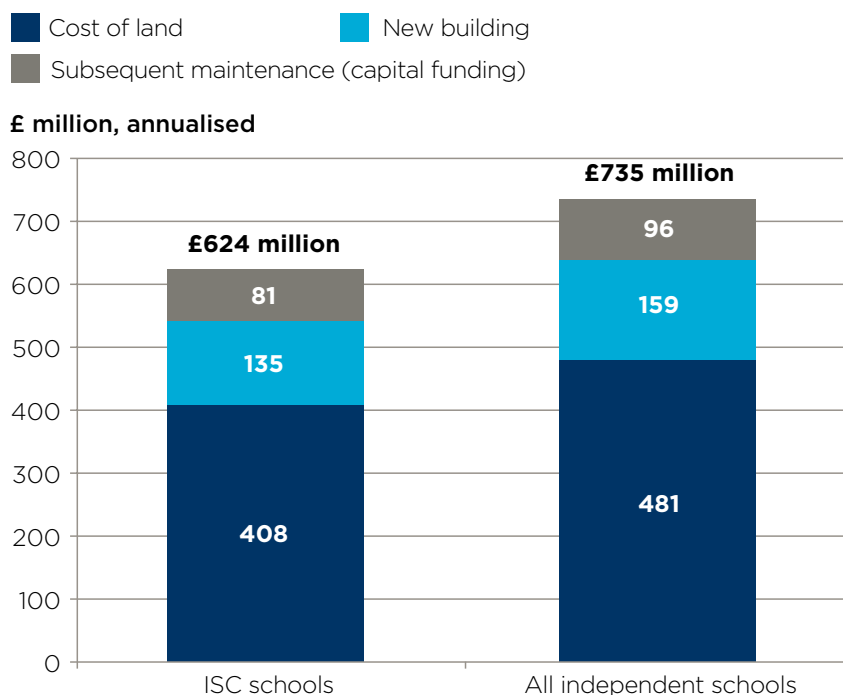
Source: Oxford Economics

3.4 SAVINGS RELATING TO CAPITAL COSTS

If independent school pupils took up their entitlement to free state schooling, then additional places would have to be created, involving the costly use of additional land, the cost of new building work, and the cost of subsequently maintaining those school buildings. Converting all one-off costs into annualised figures, savings to the UK taxpayer due to capital costs are estimated to be £624 million per year for pupils at ISC schools, and £735 million per year for all independent school pupils (see Fig. 29).

For ISC schools, £197 million of the total capital cost would relate to junior schools, £416 million to senior schools, and £11 million to special schools (see Fig. 30).

Fig. 29: Taxpayer savings relating to capital costs, by type of cost

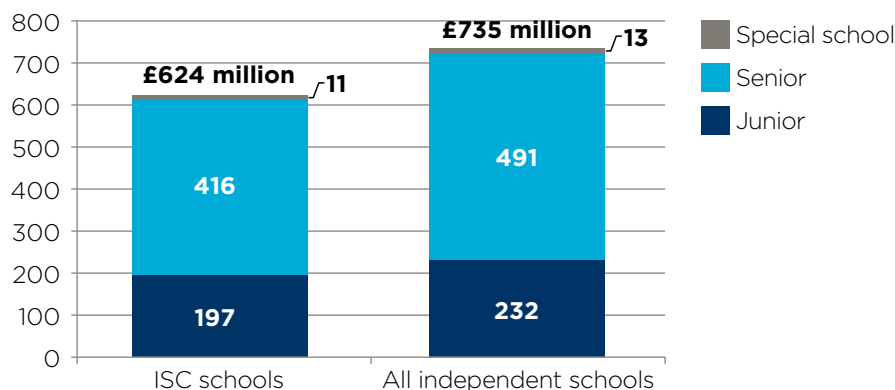


Source: Oxford Economics

⁴⁵ These breakdowns are based on English local authority-maintained schools, in the case of junior and special schools, and single academy trusts in the case of senior schools.

Fig. 30: Taxpayer savings relating to capital costs, by type of school

£ million, annualised



Source: Oxford Economics

More specifically, in relation to ISC schools alone:

- If the state had to buy all the land required, there would be a one-off cost of £9.1 billion, or £20,150 per pupil (see Fig. 31). That translates into an annualised cost of £408 million, or £907 per pupil.
- The new building work required to construct the additional schools would cost over £6.7 billion, or £14,958 per pupil. That translates into an annualised cost of £135 million, or £299 per pupil.
- Subsequent maintenance work on the buildings, funded out of capital budgets (as opposed to basic regular maintenance included in recurrent spending), would cost £81 million per annum, or £181 per pupil per year.

Fig. 31: Taxpayer savings relating to capital costs: total and per pupil

	Total cost, £ million		Per pupil, £	
	One-off cost	Annualised	One-off cost	Annualised
ISC schools				
Land ¹	9,065	408	20,150	907
New building	6,730	135	14,958	299
Maintenance	-	81	-	181
Total	15,795	624	35,108	1,387
All independents				
Land ¹	10,684	481	20,150	907
New building	7,931	159	14,958	299
Maintenance	-	96	-	181
Total	18,616	735	35,108	1,387

1. The one-off cost assumes that the state purchases all of the land required. In practice, this need not be so. But the annualised cost will be the same (at least in broad terms), whether the state purchases land, rents land that it does not own, or uses land that it already owns (given the alternative of renting out the land at commercial rates).

Source: Oxford Economics

More detail on how these figures are arrived at is set out in the following sections.

3.4.1 Cost of land

Taking into account the number of ISC school pupils affected, and the type of school they would attend if educated in the state sector, we estimate that some 2,640 hectares of land would be required to provide the school places required. This calculation is based on the mid-point of recommended per-pupil space requirements, as published by the Department for Education.⁴⁶

We then estimate what it would cost the government to buy this land, taking into account pupils' locations and the costs by region, based on the estimated price of the required land.⁴⁷ This works out at close to £9.1 billion.

Land purchases are, of course, a one-off outlay rather than being repeated each year, so it makes sense to translate this into an annualised cost. The best way to do that is to look at what the land could be rented out for each year. Based on an average annual rental yield of 4.5 percent, this works out at £408 million per annum (Fig. 32).⁴⁸

Of course, the government need not actually purchase all the land required. One alternative would simply be to rent the land—in which case, there would be no one-off cost, but the actual running cost would still be close to the £408 million per annum notional cost calculated above. Another option could be to use land already owned by the public sector. In this case, the so-called “opportunity cost” would also be close to £408 million per annum, as that is the amount the authorities could earn by renting out the land at commercial rates, rather than using it to provide free schooling.

Fig. 32: Cost of land, in total and per pupil, by type of school

	Total cost, £ million		Per pupil, £	
	One-off cost ¹	Annualised	One-off cost ¹	Annualised
ISC schools				
Junior	2,785	125	15,444	695
Senior	6,136	276	22,956	1,033
Special	144	6	64,302	2,894
Total	9,065	408	20,150	907
All independents				
Junior	3,283	148	15,444	695
Senior	7,232	325	22,956	1,033
Special	169	8	64,302	2,894
Total	10,684	481	20,150	907

1. The one-off cost assumes that the state purchases all the land required. In practice, this need not be so, but the annualised cost will be the same in broad terms.

Source: Oxford Economics

⁴⁶ Department for Education, Area guidelines for mainstream schools (building bulletin 103), June 2014, and Department for Education, Area guidelines for SEND and alternative provision (building bulletin 104), December 2015. The guidelines relate to England but we assume that the same principles would apply in Scotland, Wales and Northern Ireland. They refer to a base area per school and an extra area per pupil. The required number of new schools is estimated based on the average number of pupils at existing state schools of each type.

⁴⁷ This is based on residential land costs in Valuation Office Agency, Property market report 2011, uprated to 2016-17 based on movements in the price of existing (as opposed to new) housing, as published by the Office for National Statistics (ONS, House price simple averages, February 2018). This approach has had to be taken as the Valuation Office Agency ceased to publish the property market report after 2011. The price of residential land is used as new schools are typically in built-up areas and residential use will be a major alternative option.

⁴⁸ The yield is based on rents for commercial property (Savills, UK commercial market in minutes, March 2018).

3.4.2 New school buildings

The National Audit Office states that the one-off capital cost of providing a new free school place, for a school opening in 2013-14 or 2014-15, was £14,400 for primary schools and £19,100 for secondaries, and that around 80 percent of those costs related to building work as opposed to land purchase.⁴⁹ Taking into account construction cost increases between then and 2016-17, school building costs alone would now amount to £12,110 per junior school pupil in England, £16,060 per senior school pupil, and £64,640 per special school pupil.^{50,51}

These per-pupil building costs are then adjusted to reflect the particular geographical distribution of ISC school pupils, by assuming that they vary from one region to the next in proportion to the variation in average wages in the “construction of buildings” industry.⁵² This has the effect of pushing up building costs per pupil a little, reflecting comparatively high construction costs in the South and East of England, which account for a higher proportion of independent school pupils relative to state school pupils (see Fig. 33).

This results in an estimated total one-off building cost of over £6.7 billion, or £14,960 per pupil. This is then turned into an annualised figure by assuming that the building depreciates over 50 years, so the cost attributed to each year is two percent of the actual one-off outlay. On this basis the annual cost in respect of ISC schools alone is over £130 million, or £299 per pupil.

Fig. 33: Cost of new building, in total and per pupil, by type of school

	Total cost, £ million		Per pupil, £	
	One-off cost	Annualised	One-off cost	Annualised
ISC schools				
Primary	2,220	44	12,307	246
Secondary	4,364	87	16,324	326
Special	147	3	65,689	1,314
Total	6,730	135	14,958	299
All independents				
Primary	2,616	52	12,307	246
Secondary	5,143	103	16,324	326
Special	173	3	65,689	1,314
Total	7,931	159	14,958	299

Source: Oxford Economics

⁴⁹ National Audit Office, Capital funding for schools, February 2017.

⁵⁰ The trend in building costs relates to the price indicator for new non-housing, non-infrastructure construction work for the public sector (Office for National Statistics, Output in the construction industry, January 2018).

⁵¹ The estimate for special schools assumes that the capital cost ratio implicit in a previous National Audit Office report still applies. (National Audit Office, Establishing free schools, December 2013.)

⁵² Regional wages are taken from Office for National Statistics, Annual Survey of Hours and Earnings (“ASHE”) 2017, table 5.7a. The NAO capital cost figures, used as the starting point for these estimates, relate to England only, but the estimates are extended to Scotland, Wales, and Northern Ireland on the same basis.

3.4.3 Maintenance of school buildings

Aside from one-off land and building costs required to create new state school places, significant amounts are spent maintaining state school buildings subsequently. The National Audit Office lists the following maintenance and improvement budgets for recent and forthcoming years, in relation to schools in England:⁵³

- Priority School Building Programme: £5.0 billion total (2013-2021).
- School condition allocations: £760 million per year.
- Condition Improvement Fund: £440 million per year.
- Devolved Formula Capital: £200 million per year.
- Revenue spending: £1.2 billion per year.

Of these amounts, revenue spending on routine school building upkeep has already been captured, as part of the recurrent costs total set out earlier. The Priority School Buildings Programme, meanwhile, is essentially a one-off scheme aimed at bringing those state schools in very poor condition, due to past neglect, back up to standard. As the present calculations are based on new school building costs, plus subsequent maintenance of those buildings, it would not be appropriate to include this programme in our calculations.

However, it does appear appropriate to include the cost of the remaining three capital funding pots, given the likely need for a significant amount of small-scale capital work over the entire lifetime of a newly-built school. School condition allocations are paid to local authorities and larger academy trusts, based on a formula, to fund the replacement or refurbishment of individual blocks, or of key building components. The Condition Improvement Fund is an equivalent scheme for smaller academy trusts, which bid for fund allocations. Devolved Formula Capital is a formula-based amount paid directly by the DfE to schools and trusts of all types, to fund small capital projects.

Fig. 34: Cost of maintenance, in total and per pupil, by type of school

	Total cost, £ million p.a. ¹		Cost per pupil, £ p.a. ¹	
	ISC schools	All independents	ISC schools	All independents
Junior	27	32	149	149
Senior	53	62	198	198
Special	2	2	795	795
Total	81	96	181	181

1. Spending on maintenance out of capital budgets, i.e. excluding recurrent spending. The cost of the Priority School Building Programme, aimed at bringing state schools in very poor condition back up to standard, is also excluded.

Source: Oxford Economics

Together, these three schemes total £1.4 billion per year across England, or £173 per state school pupil.⁵⁴ Assuming that per-pupil costs vary by region and country in line with average wages in the “specialised construction activities” industry (which includes maintenance-type work), then these costs would work out at £81 million per annum for ISC schools across the UK, or £181 per pupil per year (see Fig. 34).⁵⁵

⁵³ National Audit Office, Capital funding for schools, February 2017.

⁵⁴ Separate estimates are made for junior, senior, and special schools, based on the cost ratios assumed for new building work.

⁵⁵ Average wages are from Office for National Statistics, Annual Survey of Hours and Earnings (“ASHE”) 2017, table 5.7a. Although the budgets used as the starting point for these calculations relate to England only, the estimates are extended to Scotland, Wales, and Northern Ireland on the same basis.

3.5 NON-QUANTIFIABLE ADMINISTRATIVE AND REGULATORY COSTS

The quantifiable recurrent costs captured above relate to state-financed spending by local authority-maintained schools and academy trusts, at the primary and secondary school levels. In the case of maintained schools, this includes spending funded by dedicated grants and allowances, as well as by the main Individual Schools Budget. For academy trusts, it covers all spending by the trusts, including central spending not allocated to individual schools in the case of multi-academy trusts.

In total, the state spending to which the estimates relate amounted to £50.2 billion in 2016-2017. However, total recurrent state spending in the UK, classified to the primary and secondary education functions, was around £59.4 billion in that year, based on the Treasury's key public spending manual.⁵⁶ Aside from spending by the schools themselves, this category includes central administrative costs borne by local and national authorities, where they relate to schooling at the primary or secondary levels. It also includes the cost of grants and other state-funded cash support for pupils at those levels.

Recurrent state spending on primary and secondary education not allocated to school or trust budgets, and therefore not captured in our taxpayer savings estimates, amounted to £9.1 billion in 2016-17 (see Fig. 35). That is equivalent to around £1,025 per state school pupil.

Fig. 35: Breakdown of total UK public spending on education in 2016-17

	£ billion
Total UK net state education expenditure in 2016-17	87.2
Of which: net capital outlays	10.1
Recurrent net state education spending	77.1
Of which: pre-primary and post-secondary education ¹	9.6
applied research and development relating to education ²	1.9
strategy, policy, oversight and information provision ³	2.4
students' transport, food, lodging and medical support ⁴	3.8
Recurrent net spending on primary and secondary education⁵	59.4
Of which: included in schools' and trusts' budgets	50.2
Primary and secondary education spending not in schools' budgets	9.1

1. Class 9.11 and groups 9.3-9.5 in the United Nations Classification of the Functions of Government (COFOG).

2. Group 9.7.

3. Group 9.8, "education not elsewhere classified".

4. Group 9.6, "subsidiary services to education".

5. Class 9.12 and group 9.2.

Source: Oxford Economics interpolation of HM Treasury, Public Expenditure Statistical Analyses 2017, and of Department for Education school spending statistics.

At first sight, this might suggest that our estimates of taxpayer savings could be understated by as much as 15 percent. However, there are three points to note here. A significant, though unknown, share of central administration costs will be of a fixed nature, and would not increase as a result of additional state student numbers. Nor would we expect grants and other cash support paid to students to increase proportionately, if independent school pupils were educated in the state system, due to differences in the income and needs profiles of independent school pupils and families with their state school counterparts.

A small share of the total is already accounted for by costs relating to independent schools and their pupils. For example, in 2016-17, English local authorities spent £830 million on top-up funding for high-needs pupils attending non-maintained and independent schools.

Even so, given the scale and nature of the spending involved, it is almost certain that total net central administrative and pupil support costs, relating to primary and secondary education, would be higher in the absence of the independent sector.

One example of taxpayer savings in this area is teacher induction, where the independent sector has established a self-funded organisation, the Independent Schools Teacher Induction Panel, thereby relieving local and central government of those costs.

A second concrete example of modest taxpayer savings in this area is the way in which the publicly-funded school inspection body in England, Ofsted, is not required to undertake inspections of ISC independent schools, as that task is undertaken by the Independent Schools Inspectorate (ISI) instead. This self-funded, not-for-profit body was set up by the ISC and is approved by the Secretary of State to undertake these inspections.

In 2016-17, Ofsted undertook 4,862 state school inspections, accounting for 22 percent of all state-maintained schools in England.⁵⁷ It also undertook 269 inspections of (non-ISC) independent schools, at a full cost of £3.8 million (before deducting payments by the schools). If Ofsted were to inspect 22 percent of ISC schools in England each year (i.e. 278), and if the average cost per school matched the average full cost for the independent schools inspected in 2016-17 (£14,250), and if the state bore the full cost as it does for state-maintained schools, then the extra cost for the taxpayer would be in the region of £4.0 million per year. In addition, the non-ISC independent schools inspected by Ofsted in 2016-17 contributed £0.8 million towards the cost.

⁵⁷ Ofsted, Annual Report and Accounts 2016-17.

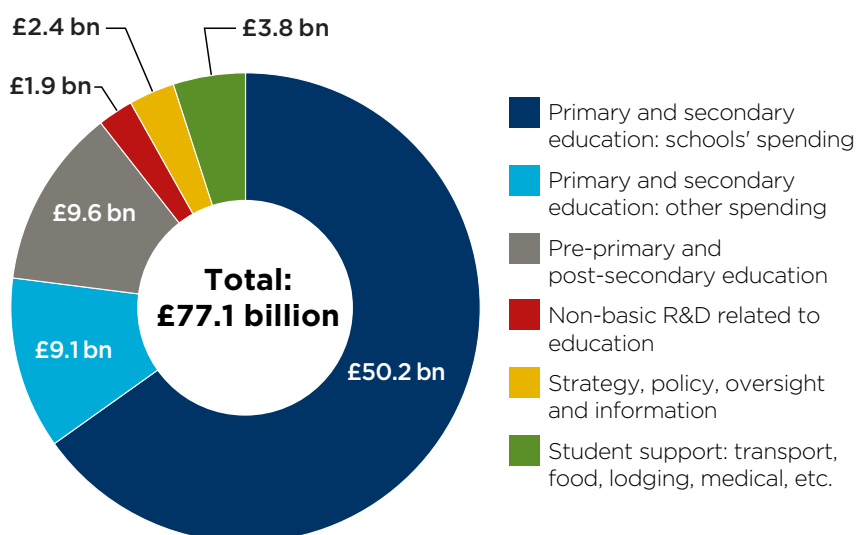
Other than spending specifically classified to “primary” or “secondary” education, or to older and younger age groups, three further types of expenditure are included in the wider state “education” function. These are:

- Spending by government agencies on applied research and experimental development (“non-basic R&D”), related to education.
- Strategy, policy and oversight, and provision of information and statistics, related to education.
- Support for students in the form of provision of transport, food, lodging, and medical services, other than that covered by cash grants.

Recurrent spending classified to “R&D education” amounted to £1.9 billion in 2016-17, while that on education-related strategy, policy, oversight and information amounted to £2.4 billion (see Fig. 36). Nearly all of these costs were borne by central, rather than local, government. However, it is not clear that these amounts are affected significantly by the existence of independent schools.

On the other hand, provision for students of transport, food, lodging, and medical services cost £3.8 billion in 2016-17, with local authorities accounting for £3.4 billion of that figure. The clear majority of this spending is likely to relate to pupils of primary and secondary school age, and entitlement is often restricted to those at state-funded schools. For example, local authorities are required to fund home-to-school transport for pupils living more than a specified distance from their school (two or three miles, depending on age). But, except for SEND pupils, eligibility is restricted to those at state-funded rather than independent institutions. This spending would, therefore, be at least a little higher in the absence of independent schools.

Fig. 36: Recurrent UK education spending by function, 2016-17



Source: Oxford Economics, based on HM Treasury, *Public Expenditure Statistical Analyses 2017*

4. THE IMPACT OF ABOVE-AVERAGE EDUCATIONAL OUTCOMES

This chapter shows how independent schools make a positive contribution to the UK's long-term economic growth performance, by ensuring that their pupils' educational attainment pulls up the national average, and by promoting a bias towards science, mathematics, and other subjects demanded by employers.

Specifically, we find evidence to suggest that:

- Independent school pupils perform better at age 15 than their state school counterparts, in mathematics, science and reading.
- In the absence of the outperformance in maths and science, the UK's long-term average annual GDP per head growth rate would be 0.07 percent lower.
- On that basis, had independent schools ceased to exist in the late 1940s, UK GDP could plausibly have been in the region of £73 billion lower in 2017 than the actual figure—a shortfall of 3.6 percent, or £1,110 per UK resident.
- Science, technology, engineering, and mathematics are in high demand by UK employers, as evidenced by above-average employment rates and salaries for graduates in those subjects, when compared with the overall graduate population.
- The proportion of A-level entries, in these and other subjects classified by the authorities as “strategically important and vulnerable”, is higher for independent schools than for their state-funded counterparts.

- The proportion of A-level entrants gaining the top A and A* grades in these subjects is higher for independent schools than for state schools.

The success of British independent schools in scientific fields is demonstrated by the list of highly distinguished alumni. Amongst many others these include Alan Turing, who played a key role in the development of modern computers, Tim Berners-Lee, inventor of the world wide web, and Stephen Wolfram, who developed the Wolfram Alpha search engine.

The biologist John Gurdon, and physicist Peter Higgs, Nobel Prize winners for their work on stem cells and sub-atomic particles respectively, were also educated in the sector, as were the mathematicians Tim Gowers (winner of the Fields Medal) and Andrew Wiles (who proved Fermat's Last Theorem). Other famous alumni include Francis Crick and Maurice Wilkins (key contributors to the discovery of the DNA molecule and its structure), Charles Darwin, and the inventors Clive Sinclair and James Dyson.

4.1 EDUCATIONAL ATTAINMENT AND ECONOMIC GROWTH

The knowledge and skills of the workforce are widely recognised as being important for economic growth—with, for example, the CBI regularly highlighting achievements and concerns in this field.⁵⁸

One way in which the link between educational attainment and economic performance can be quantified is to look at the OECD's "PISA" scores for the latest year available, and then apply the findings of OECD research into the relationship between those scores and economic growth.^{59,60} Among much else, PISA scores, which range in principle between 0 and 1,000, are assessed every three years for the achievement of 15-year-olds in mathematics, reading, and science. In the latest published results, for 2015, the average across all UK schools was slightly better than the OECD average in mathematics, clearly better in the case of reading, and significantly better in the case of science. In all three UK cases, independent schools outperformed those in the state sector (see Fig. 37).

Meanwhile, the OECD research suggests that, for every 100-point reduction in the average score for mathematics and science, annual GDP growth would be lowered by 1.74 percentage points.⁶¹

If all ISC school pupils achieved the maths and science scores achieved by state schools, instead of those achieved by independent schools, then the UK's average PISA score across those two disciplines would be lowered by 3.4 percentage points, which in turn would knock 0.06 percentage points off the UK's average annual long-term rate of growth in GDP per person. The PISA score loss if all independent school pupils achieved in line with their state school counterparts would be 4.0 percentage points, sufficient to knock 0.07 percentage points off annual growth per head.

A loss of per capita GDP growth of 0.07 percent would knock £1.5 billion off the UK's GDP in the first year of impact, if the full impact were felt immediately—with the loss relating to ISC schools amounting to £1.3 billion, on that basis. In practice, though, these potential losses would build gradually over time, with the 0.07 percent full annual loss only being seen many years or even decades after the drop in educational performance.

Fig. 37: PISA test scores in 2015 and alternative scenarios

PISA test score (maximum = 1,000)	Mathematics	Science	Average of maths and science	Reading
OECD average 2015	490.2	493.2	491.7	492.5
UK average 2015	492.5	509.2	500.9	498.0
UK state schools 2015	488.7	506.2	497.4	496.1
UK independent schools 2015	555.6	572.3	563.9	557.8
UK average re-weighted by latest pupil ratio	492.7	510.2	501.5	499.8
UK average if no ISC school outperformance	489.3	506.8	498.0	496.7
UK average if no independent school outperformance	488.7	506.2	497.4	496.1

Source: OECD; Oxford Economics

⁵⁸ CBI and Pearson, Helping the UK thrive: CBI/Pearson education and skills survey 2017, July 2017.

⁵⁹ OECD Programme for International Student Assessment. See <http://www.oecd.org/pisa/>.

⁶⁰ OECD, The high cost of low educational performance: the long run economic impact of improving PISA outcomes, 2010.

⁶¹ We use the same OECD study as used in our previous work, for the sake of consistency.

Once the annual growth reduction had built to its final long-term level, however, the GDP lost in each year would not simply be confined to 0.07 percent of the baseline, but would build year-on-year. Suppose, for example, that UK independent schools had ceased to exist at the end of 1948.⁶² The full impact of the loss of these schools' outperformance, based on the OECD's empirical analysis and the 2015 PISA scores, might have built very gradually over a period of, say, 30 years, making 1978 the first year in which the full 0.07 percent impact applied. But the annual GDP growth rate would

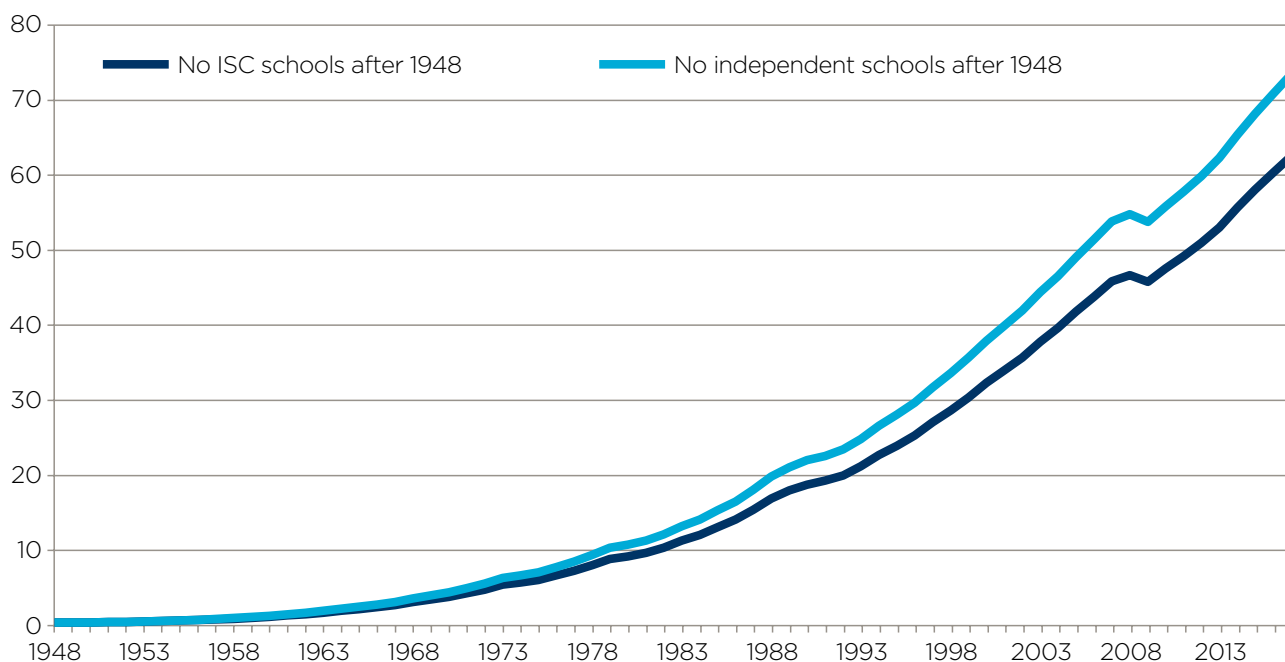
have been impacted by 0.07 percent in each and every year since then, as well as by smaller amounts in each year from 1949 to 1978, making the cumulative impact on the level of GDP very substantial.

On this basis, the negative annual GDP impact in 2017 would have been £73 billion, equivalent to 3.6 percent of the actual GDP out-turn, or some £1,110 per head of population. The annual GDP lost in relation to ISC schools alone, based on the latest share of pupil numbers, would have been £62 billion, worth 3.1 percent of the actual GDP out-turn, or £950 per head (Fig. 38).

Furthermore, while a significant share of this hypothetical loss would be borne by the individuals directly affected, in the form of lower real take-home pay, the loss would by no means be confined to that group. Aside from the potential impact on wider UK society resulting from the associated loss of tax revenues, individuals' knowledge and skills typically have "positive spillover effects" for the rest of the economy, with future employers, work colleagues, and other work contacts—not just the learners themselves—standing to benefit.⁶³

Fig. 38: Path of UK GDP under alternative scenarios

GDP lost in each year, £ billion at 2017 prices



Source: Oxford Economics

⁶² This year has been chosen simply because UK GDP figures date back to then.

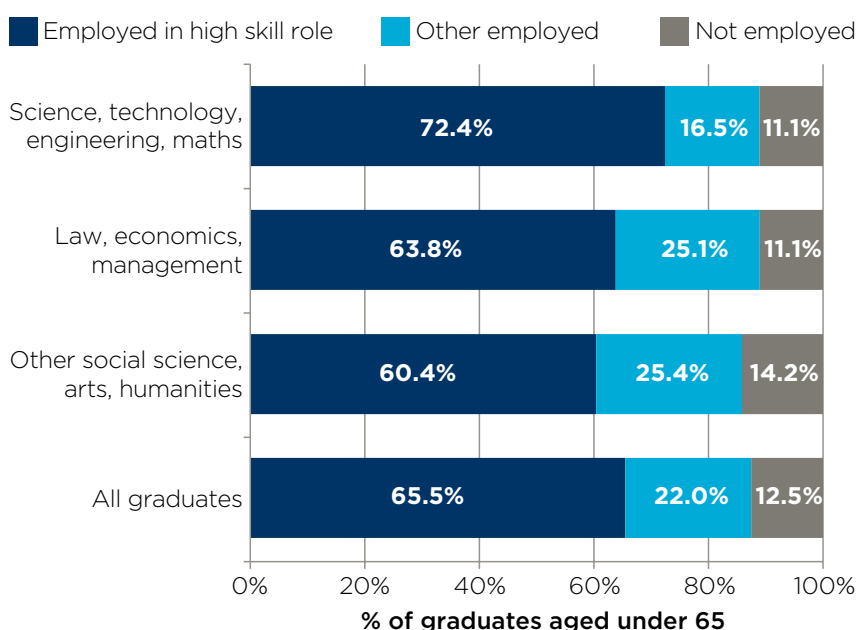
⁶³ See for example Aditi Bhutoria, University of Cambridge, for the Government Office for Science Foresight programme, Economic returns to education in the United Kingdom, September 2016.

4.2 PROMOTING STRATEGICALLY IMPORTANT SUBJECTS

Independent schools can also be shown to promote subjects that are strategically important for the UK's skills base.

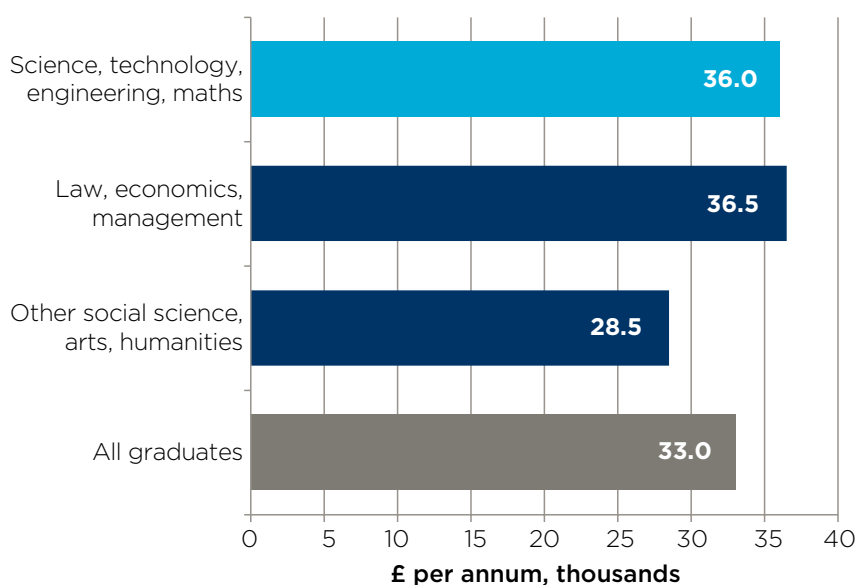
The recently-closed Higher Education Funding Council for England (HEFCE) classified science, technology, engineering, mathematics, modern foreign languages, and quantitative social sciences as “strategically important and vulnerable” (SIV) subjects. The demand from UK employers for STEM subjects (science, technology, engineering, mathematics) within that wider grouping, meanwhile, can be seen in the Department for Education’s statistics on graduates’ employment status. These show that graduates in those subjects have higher-than-average employment rates, with a bias towards high-skill roles and associated above-average salaries (see Fig. 39 and Fig. 40).⁶⁴

Fig. 39: Graduate employment status by subject group, 2017



Source: Department for Education

Fig. 40: Median graduate salaries by subject group, 2017



Source: Department for Education

An examination of the pattern of A-level entries and results, meanwhile, shows that the proportion of all entries accounted for by SIV subjects is greater for independent schools than for state-funded schools, with independent school pupils typically achieving a higher proportion of A* and A grades in those subjects than their state-educated counterparts (see Fig. 41 and Fig. 42).⁶⁵

Fig. 41: Proportion of total A-level entries in 2017, by type of school

Subject	Independent schools	State schools and FE colleges	Ratio ¹
French	1.7%	0.6%	2.7 : 1
Further mathematics	3.2%	1.5%	2.2 : 1
Spanish	1.4%	0.6%	2.2 : 1
Mathematics	16.9%	11.0%	1.5 : 1
Chemistry	8.3%	6.1%	1.4 : 1
Physics	5.9%	4.1%	1.4 : 1
German	0.3%	0.2%	1.4 : 1
Biology	8.1%	7.6%	1.1 : 1

1. The ratio for other modern foreign languages, based on the published data, is 13.4 : 1 (2.21% versus 0.17%). However, these figures are significantly affected by missing data points, due to the confidentiality-related suppression rules applied.

Source: Independent Schools Council based on Department for Education data.

Fig. 42: Proportion of A-level entries achieving high grades in 2017

Subject	Independent schools		State schools	
	% awarded A*	% awarded A or A*	% awarded A*	% awarded A or A*
Further mathematics	45.5%	74.5%	28.9%	58.8%
Mathematics	28.9%	60.5%	17.3%	40.9%
Spanish	19.0%	58.4%	10.4%	36.5%
French	18.8%	59.2%	10.0%	39.4%
Physics	17.2%	45.4%	8.8%	28.4%
German	17.1%	60.1%	9.5%	41.5%
Biology	16.8%	44.3%	7.3%	25.2%
Chemistry	16.8%	50.1%	7.7%	30.0%
Other modern foreign languages	11.4%	55.5%	8.2%	39.3%

Source: Independent Schools Council based on Department for Education data.

⁶⁵ The underlying dataset used is Department for Education, 2017 16-18 Performance Tables underlying data. The data show A-level entries and results by school and subject, for England only. The results are suppressed in cases where five or fewer pupils are entered by a school in the subject concerned.

APPENDIX 1: REGIONAL EFFECTS

This appendix looks at the distribution of ISC schools' impacts across Scotland, Wales, Northern Ireland, and the nine standard regions of England. Compared with the distribution of state school pupils, the ISC school sector

is "over-represented" in the South East of England, and to a lesser extent in London, the East, and South West of England (Fig. 43). While ISC schools also spread across the rest of the UK, they are "under-represented" in those areas.

Fig. 43: Regional distribution of ISC school and state school pupils

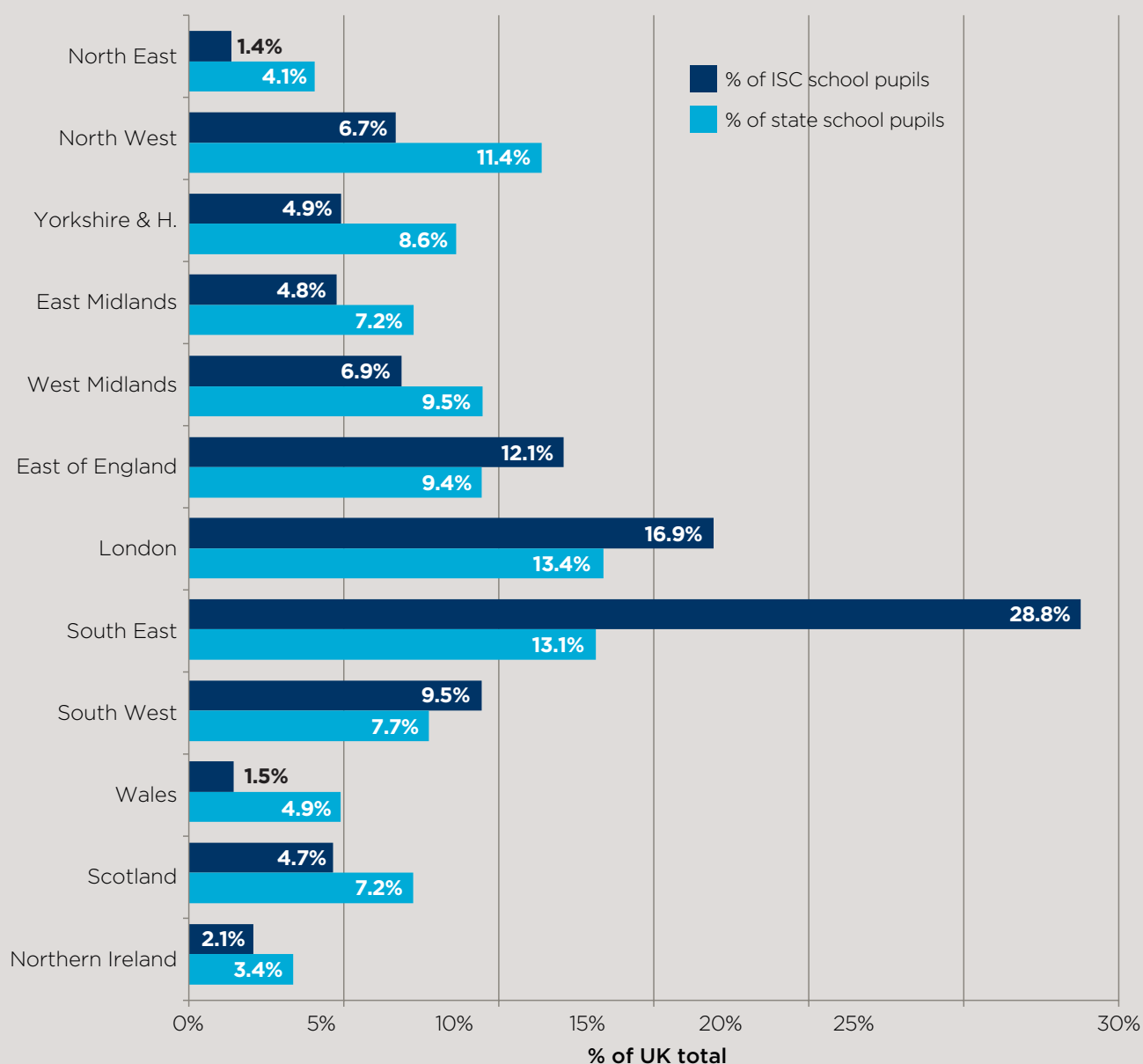
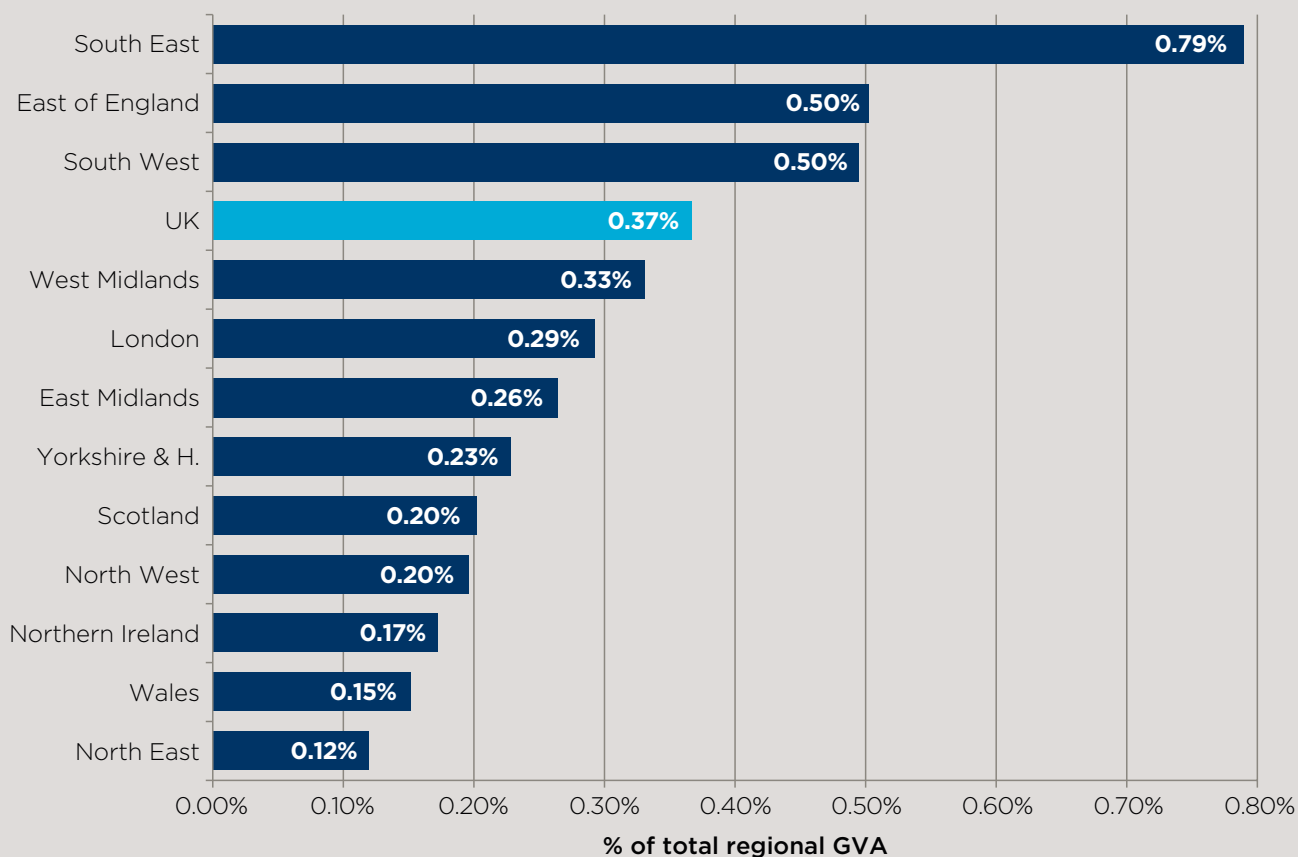


Fig. 44: ISC schools' direct value added as a share of each region's total value added

Source: Oxford Economics

This has a substantial influence on the pattern of regional performance, in terms of ISC schools' direct contribution to value added, jobs, and tax, and their contribution to savings to the taxpayer. As a share of total regional economic output, ISC schools' value added is highest in the South East, at 0.79 percent, and also above the national average

(0.37 percent) in the East of England and South West (see Fig. 44 and Fig. 45). This share is, however, a little below the national average in London, on account of the significant contribution to total economic activity made by financial and professional services in that region. It is lowest in the North East of England, followed by Wales, Northern Ireland, the North West and Scotland.

In absolute terms, London and the South East alone account for 46 percent of ISC school pupils across the UK, for 47 percent of staff, for 50 percent of the sector's direct contribution to value added and tax revenues, and for 50 percent of estimated taxpayer savings.

Fig. 45: The direct economic impact of ISC schools, by country and region

	Number of ISC schools	Number of ISC pupils	Direct GVA impact, £ million per annum	Direct jobs impact, headcount	Direct tax impact, £ million per annum	GVA impact as % total regional GVA ¹	Jobs impact as % total regional jobs	Tax-payer savings, £ million
North East	16	7,235	59	1,560	15	0.12%	0.13%	37
North West	84	34,997	312	7,930	85	0.20%	0.22%	181
Yorkshire & H.	59	25,774	254	7,050	67	0.23%	0.26%	134
East Midlands	68	24,994	260	7,410	65	0.26%	0.31%	122
West Midlands	91	36,005	410	10,040	107	0.33%	0.34%	182
East of England	164	63,478	723	17,700	193	0.50%	0.56%	342
London	236	88,830	1,089	21,450	288	0.29%	0.37%	700
South East	397	151,012	1,919	47,360	502	0.79%	0.95%	798
South West	140	49,620	613	17,180	153	0.50%	0.59%	251
Wales	20	7,611	87	2,460	22	0.15%	0.16%	42
Scotland	32	24,432	262	5,720	72	0.20%	0.20%	149
Northern Ireland	10	10,891	64	1,450	17	0.17%	0.17%	50
UK	1,317	524,879	6,053	147,360	1,585	0.37%	0.42%	2,987

1. GVA excluding owner-occupied rent.

Source: Oxford Economics

Looking at the total contribution to the economy through the three channels of impact, London and the South East account for 44 percent of the sector's nationwide contribution to value added, for 40 percent of jobs, and for 45 percent of tax (see Fig. 46). Relative to the direct contribution, London's share in the total is pulled down by its reliance on supplies of consumer goods and services from outside the capital. As a share of total regional economic output, ISC schools' value added

impact is above the average (0.71 percent) in the South East, South West, and East of England, but below the average in London (see Fig. 47). It is lowest in Scotland, followed by the North West and Northern Ireland.

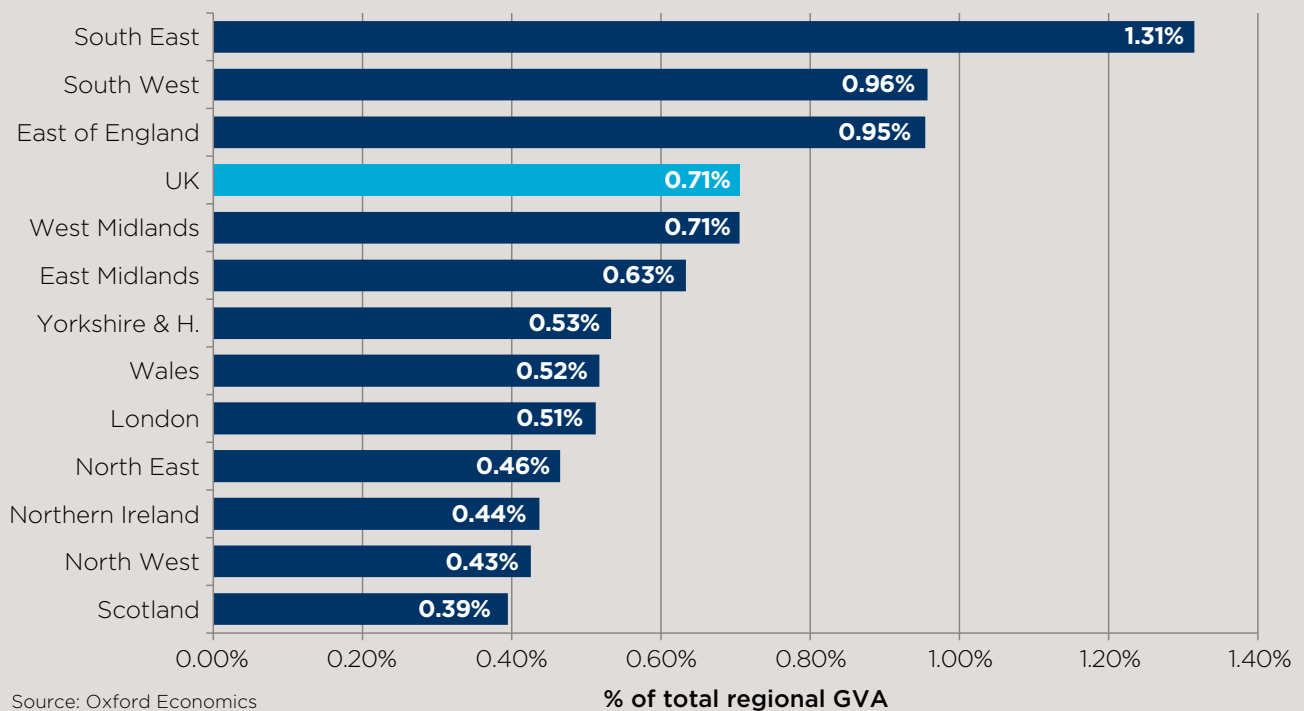
Note: ISC member schools also have access to a tool allowing them to assess the economic impact of their individual school. This can be accessed via the ISC Member Zone.

Fig. 46: The total economic impact of ISC schools by country and region

	Total GVA impact, £ million per annum	Total jobs impact, headcount	Total tax impact, £ million per annum	GVA impact as % total regional GVA ¹	Jobs impact as % total regional jobs
North East	230	4,820	64	0.46%	0.41%
North West	677	15,700	203	0.43%	0.43%
Yorkshire & H.	593	14,390	174	0.53%	0.54%
East Midlands	624	15,560	178	0.63%	0.64%
West Midlands	875	19,940	257	0.71%	0.67%
East of England	1,372	31,090	416	0.95%	0.99%
London	1,906	31,970	594	0.51%	0.55%
South East	3,196	71,570	981	1.31%	1.43%
South West	1,185	30,030	346	0.96%	1.02%
Wales	297	7,180	83	0.52%	0.47%
Scotland	512	10,690	158	0.39%	0.38%
Northern Ireland	163	4,070	46	0.44%	0.46%
UK	11,630	257,010	3,499	0.71%	0.73%

¹ GVA excluding owner-occupied rent.

Source: Oxford Economics

Fig. 47: ISC schools' total GVA impact as a share of total regional GVA

APPENDIX 2: IMPACT OF BOARDING AT ISC SCHOOLS

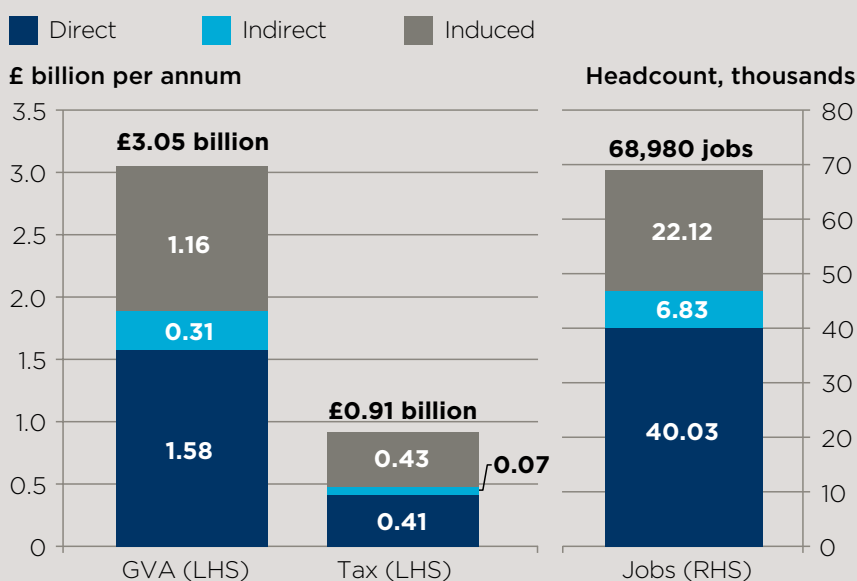
This appendix looks at the contribution of boarding pupils to the total economic footprint, set out in Chapter 2. For each region separately, all income-per-pupil and cost-per-pupil ratios are assumed to vary from the ratios for all ISC schools, in proportion to the variation in boarding school fees from overall average fees. The resulting purchases from domestic suppliers, and employee compensation, are then combined with ratios in the input-output table to estimate the share of the indirect and induced impacts that can be attributed to boarding activity.

As of early 2018, there were around 69,500 boarders at ISC schools in the UK, accounting for 13.2 percent of the 525,000 ISC school pupil population. There is significant variation by region, with ratios as low as three percent in London and Northern Ireland, and as high as 25 percent in the South West and Wales.

But while boarding school pupils account for 13.2 percent of all ISC pupils, boarding activity accounts for 26.2 percent of ISC schools' total contribution to value added. This stems from the higher fees paid, in return for the greater value of services provided by the schools, and the resulting spending on employee wages and business supplies.

The direct contribution to gross value added amounts to £1.58 billion per annum, supporting some 40,000 jobs in the ISC schools sector, and generating £410 million in annual tax revenues (see Fig. 48). Taking all three channels of economic impact into account, the total contribution to gross value added is £3.05 billion per year, associated with almost 69,000 jobs and £910 million of annual tax payments.

Fig. 48: The contribution of boarding to ISC schools' economic footprint in the UK



Source: Oxford Economics

APPENDIX 3: IMPACT OF NON-BRITISH PUPILS AT ISC SCHOOLS

This appendix looks at the economic contribution of non-British pupils to the UK economy. At the beginning of 2018, there were around 53,700 such students at ISC schools in the UK, Channel Islands and Isle of Man, or some 10.1 percent of the total. The most common single nationality is Chinese, with 17 percent of these pupils coming from Mainland China, and 10 percent from Hong Kong. European Economic Area nationalities account for 31 percent, in aggregate, and US pupils for seven percent. Some 28,500 of these pupils had parents living overseas, while the parents of the remaining 25,200 non-British pupils resided in the UK.

The total economic contribution of these pupils has three elements:

- The share of the ISC schools' economic footprint, as set out in Chapter 2, that can be attributed to school income from these pupils.
- Activity supported by these pupils' other spending in the UK, where this would not take place in this country were it not for their attendance at an independent school.
- Activity supported by the spending of visits by friends and relatives from overseas, where this would otherwise not occur.

For the second and third of these impacts, we assume the boost attributable to attendance at ISC schools relates only to those pupils whose parents live outside the UK. It is assumed that those with parents in the UK would live in the UK anyway, whether or not they attended an ISC school, so no additional economic impact is attributed or claimed, beyond that already captured in Chapter 2. The results presented will therefore understate the full impact of ISC schools, if some of these families choose to live in the UK specifically because of the ISC school offering.

Impacts driven by payments to ISC schools

Average fees for non-British students, relative to all students, were estimated taking into account the pattern of school attended, split by senior / mixed age / junior school, and by the pupils' status as boarders, day pupils at boarding school, or day school attendees. On this basis, non-British students with parents living overseas are estimated to pay 80 percent more in fees, on average, than the overall ISC school population. Those with parents living in the UK pay broadly the same as the overall average.

Non-British students account for 14.2 percent of the ISC schools' total contribution to gross value added in the UK, taking into account the consequent impact on the demand for supplies and on employee spending power. The total employment and tax impacts are correspondingly higher than the average, on a per-pupil basis.

The direct contribution to value added amounts to £860 million per annum, supporting almost 21,000 jobs in the ISC school sector, and generating £220 million in annual tax revenues (see Fig. 49). Of these amounts, those with parents living overseas account for broadly two-thirds of the total impact, with a GDP contribution of £580 million, supporting 14,000 jobs and £150 million of tax revenues.

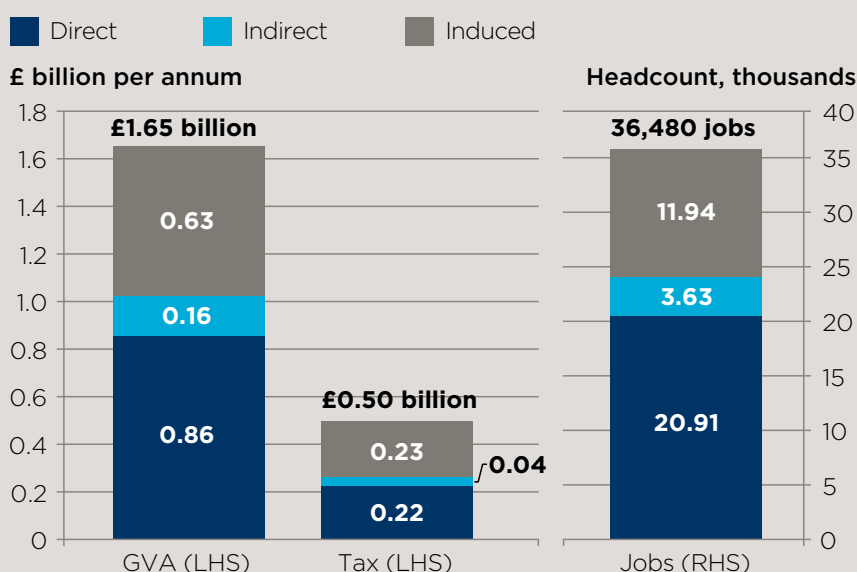
Taking all three channels of economic impact into account, the total contribution to value added is £1.65 billion per year, associated with almost 36,500 jobs and £500 million of annual tax payments. Those with parents living overseas account for £1.11 billion of this contribution to GDP, associated with 24,500 jobs and £330 million of tax payments.

Impacts driven by other pupil expenditure

As no data on school pupil expenditure are available, Oxford Economics used data on the spending pattern of students at higher education institutions.⁶⁶ This was adjusted to exclude items deemed inappropriate, either on the grounds of a ge, or because they would be covered by school fees. Separate estimates were made for boarders and day pupils, and the original data were adjusted to 2017 prices using components of the ONS Consumer Prices Index. On this basis, it was estimated that non-British pupils at ISC schools, whose parents live overseas, spent £141 million in 2017.

This spending was allocated to product types and fed into the Oxford Economics' Economic Impact Model. After allowing for import content and sales taxes, and taking into account the direct, indirect and induced effects, the total value added contribution supported by this expenditure is put at £126 million per year. This is associated with 2,350 jobs, and £47 million of annual tax revenues.

Fig. 49: The contribution of non-British pupils to ISC schools' economic footprint



Source: Oxford Economics

Impacts driven by the spending of visiting friends and relatives

Visiting friends and relatives will also spend money in the UK, further supporting output, jobs and taxes. Based on information on spending by overseas visitors to friends and family in the UK (from the ONS International Passenger Survey), the pattern of tourist spending by product

type (from the ONS Tourism Satellite Accounts), and the overseas-born population of the UK (from the ONS Annual Population Survey), we estimate that visitors to ISC school pupils based in the country, whose parents live overseas, would have spent £24 million in 2017.

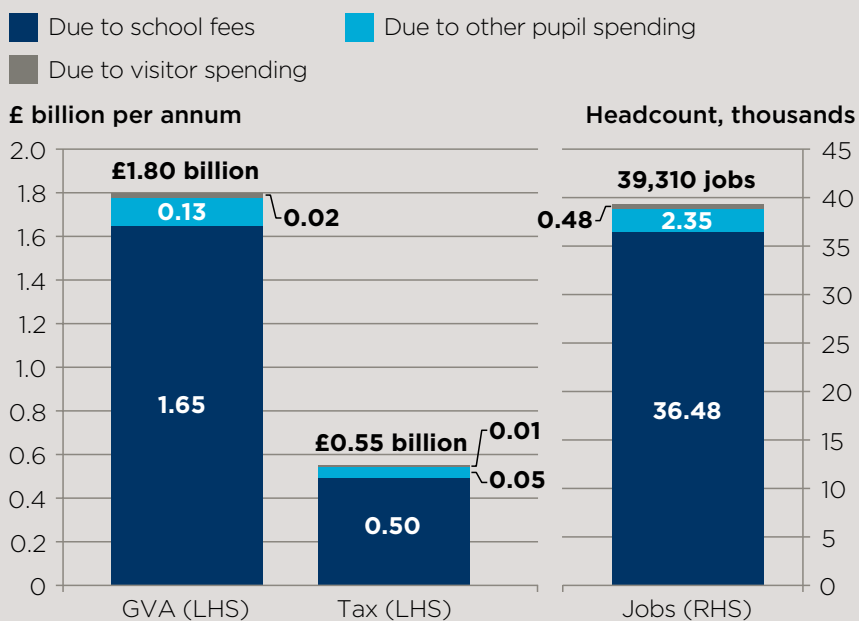
This would have supported some £22 million of value added, after allowing for import content and sales taxes, and taking the direct, indirect and induced effects into account. That in turn would have supported 480 jobs, and generated £8 million in annual tax revenues.

Total economic impact of non-British ISC pupils

Summing over these three types of economic impact, non-British pupils at ISC schools are found to have supported around £1.80 billion of gross value added in the UK in 2017 (see Fig. 50). This would have been sufficient to support 39,310 jobs, and to generate £550 million in annual tax revenues. Of these amounts, students with parents living overseas account for £1.26 billion of gross value added, 27,370 jobs, and £390 million of tax revenues.

The majority of these values, i.e. the amounts relating to the payment of school fees, form an important part of the wider economic footprint of ISC schools, as already captured in the analysis in chapter 2. But the amounts relating to other pupil spending, and to visitor spending, are additional to that. The additional impact sums to £148 million per year in terms of the contribution to GDP, supporting 2,830 jobs, and generating £55 million in annual tax revenues.

Fig. 50: Total economic impact of non-British pupils at ISC schools



Source: Oxford Economics

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