

# An Economic Contribution Analysis of Free School Meal Provision Expansion

*Final report*  
*November 2023*

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# Key abbreviations and definitions

Listed below are the abbreviations used throughout this report, and their relevant definitions.

Abbreviation/ Terminologies	Definition
Capex	<b>Capital Expenditure</b> - This is investment in the acquisition, maintenance, or improvement of long-term physical assets such as buildings and machineries.
Opex	<b>Operational Expenditure</b> - This ongoing spending associated with the day-to-day operations of a business/activity such as rent, utility bills, labour costs etc.
FSM	<b>Free School Meals</b> - A government funded programme with the aim to provide nutritious meals to eligible school children (usually those from low income households) at no costs to their families. The eligibility criteria for FSM can be found <a href="#">here</a> .
FTE	<b>Full-Time Equivalent</b> - This is a unit of measurement commonly used for employment in accounting for full-time and part-time employees, which allows for standardisation and comparison across employees with differences in hours worked.
GVA	<b>Gross Value Added</b> - A measure of economic activity for a particular industry or region, which includes wages, profits, and other contributions that brings value within the production process. Like Gross Domestic Product, GVA is a measure of economic activity but at producer's prices, i.e. without taking into account indirect taxes (such as VAT, excise taxes, import duties) and subsidies.
IO table	<b>Input-Output table</b> - This is a database table provided by the Office of National Statistics. This describes how products are used to produce further products in the economy and satisfy final output, it represents the interdependencies and relationships between different industries within an economy.
IO model	<b>Input-Output model</b> - This is referred to an in-house model that has been constructed by making adjustments to the IO table which is taken from the Office of National Statistics.
Multipliers	<b>Multipliers</b> - This is the relationship between the interventional spending and the final economic outcome (GVA and employment), i.e. it is the rate of change of spending on GVA or employment.
Direct impact	<b>Direct impact</b> - The economic value from the operations and procurement activities in providing FSM, including people employed directly.
Indirect impact	<b>Indirect impact</b> - This is the impact generated through the supply chain through economic activity and employment created from suppliers down the supply-chain, e.g the suppliers' suppliers and so on.
Induced impact	<b>Induced impact</b> - This is the impact generated through the spending by employees throughout the supply chain from their earnings.
UIFSM	<b>Universal Infant Free School Meals</b> - This provides FSM to all children in their infancy ranging from Reception and Year 2 in England, regardless of their families household income.
UFSM	<b>Universal Free School Meals</b> - This is defined in the report as providing FSM to children attending primary and secondary state schools in England, regardless of their families household income.
UPFSM	<b>Universal Primary Free School Meals</b> - This is defined in the report as providing FSM to children attending primary state schools in England only, regardless of their families household income.

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Section 1:

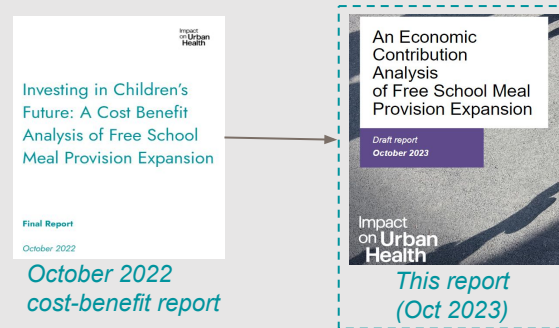
## Executive summary

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# Investing in Universal Free School Meals would generate both direct and wider benefits in London and across England

Impact on Urban Health commissioned PwC to produce this report, estimating the wider economic contribution of expanding free school meals (FSMs) across primary and secondary schools for two scenarios: firstly expansion within Greater London, and secondly expansion across England. This report follows from the October 2022 Cost Benefit Analysis (CBA) and Updated CBA undertaken in September 2023, involving the reporting of the expected direct costs and benefits associated with providing a universal (and universal credit) FSM policy. The direct benefits estimated in the October 2022 report for the Universal FSM provision for 2025-2045 in England was £41.3bn.

Whilst the October 2022 report was focused on the benefits to direct beneficiaries (i.e. eligible children and their households) with respect to improved health outcomes, educational attainment and employment, this report focuses on the wider contribution stimulated by the supply chain activities from expanding FSMs.



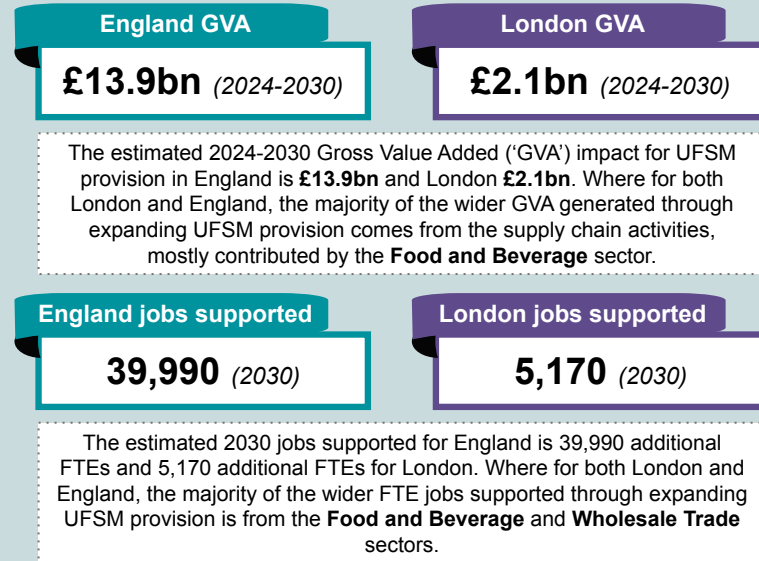
## The wider contribution approach:

A four-step approach was taken in assessing the wider economic contribution (i.e. direct, indirect and induced impacts) of FSM expansion for primary and secondary schools in London and England (see the illustration below). To facilitate the approach and assumptions used, an extensive data collection process of desktop research, stakeholder engagement (i.e. Local Authorities, Catering Providers and Schools), and Input-Output modelling was conducted, for the 2024-2030 period.

- 1 Estimate total expenditure**  
 The capital and operational expenditure needed to expand FSM across primary and secondary schools was estimated across the supply chain.
- 2 Split expenditure by sector**  
 Using the expenditure estimated across the supply chain to attribute it to the relevant sectors in which the activity takes place.
- 3 Derive sector multipliers**  
 Build of bespoke input-output models for London and England to derive the sector multipliers for both regions.
- 4 Estimate wider contribution**  
 Apply expenditure estimated from Step 2 by the sector multipliers in Step 3. In order to calibrate the wider contribution (GVA and employment) of FSM expansion.

## Universal Free School Meal Results:

The wider contribution of Universal Free School Meals provision in London and England is summarised below:



In conclusion, the wider contribution analysis indicates that investing in UFSM not only brings direct benefits in terms of health, educational and employment improvements to eligible children, but also wider benefits (i.e. economic activity and employment generation) of between £2bn in London and £14bn in England between 2024-2030. As well as between 5,000 to 40,000 additional jobs (in 2030) across the two regions respectively; simulated by the increase in supply chain activities from the provision of FSMs.

A child wearing a red puffer jacket, red knit hat with a pom-pom, and red tights is swinging on a blue metal swing set. The child is seen from the back, holding the chains. The swing set is on a paved playground area with a brick wall and a green fence in the background.

Section 2:

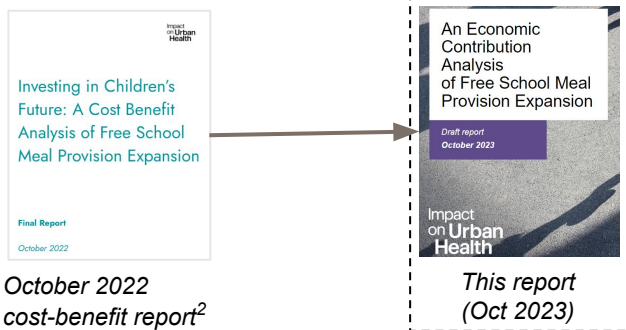
## Introduction

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# This report estimates the wider economic contribution from investing in the Universal Free School Meal provision

## Background and policy context

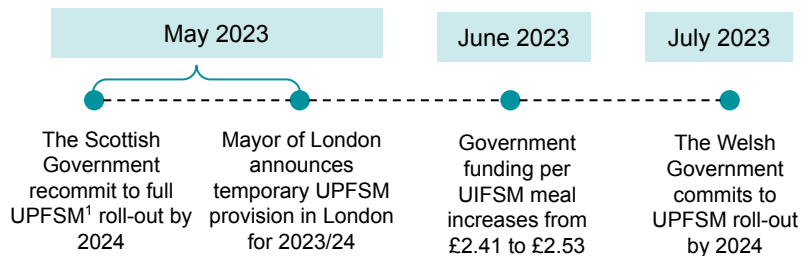
PwC have been commissioned by Impact on Urban Health (IoUH) to estimate the wider contribution of expanding free school meal (FSM) provision to the economies of London and England. This work has been undertaken following the cost-benefit analysis (CBA) of FSM provision conducted in October 2022. The report included the identification and quantification of the expected costs and benefits associated with two FSM expansion scenarios: a universal FSM and a universal credit FSM scenario. The 2022 report focused on the benefits felt by the direct beneficiaries (i.e. eligible children and their households) in areas, such as improved health outcomes with an estimated NHS savings of £12m from reduced childhood obesity and increased lifetime earnings of £18.5bn associated with improvements in educational attainment. Whilst this report focuses on the wider contribution simulated by supply chain activities from expanding FSMs.



To reflect recent inflationary pressures and resultant cost per meal increases seen across the UK, the October 2022 CBA analysis was updated with latest prices in September 2023. In the same way that the ongoing cost of living crisis necessitated an update to the CBA analysis, the ongoing wider policy context has highlighted the importance of investigating the wider (indirect and induced) economic benefits that increasing FSM provision could bring to the local economy across London and England, via this report.

- <sup>1</sup> 'UPFSM' is an abbreviation for Universal Primary Free School Meal provision.
- <sup>2</sup> [Impact on Urban Health 2022](#), Expanding free school meals: a cost benefit analysis

This is made more pertinent following FSM announcements in London, Wales and Scotland (see the below timeline), which has meant that the majority of regions in England are the only places where primary school students' do not currently receive universal FSMs in 2023/24. Building on the 2022 CBA report by providing an evidence base assessing the wider economic benefits of universal FSMs across London and England provides further insights regarding the total economic impacts from any potential future roll out of FSMs across England.



It is important to note that the current FSM eligibility criteria in the rest of England has remained unchanged since the 2022 report (per the table below). The FSM programme in England largely remains means tested, with **69%** of students in receipt of universal credit in England continuing to be ineligible for FSMs.

## FSM eligibility criteria (England)

### Reception - Year 2:

Receive Universal Infant Free School Meals (UIFSM)

### Year 3 onwards:

FSM provision is means-tested with the exception for London with a temporary roll-out of UPFSM for 2023-2024. Those eligible will need to be in receipt of one of the following:

- Income support, Income-based JSA or ESA, Pension credit, Child Tax Credit and Working Tax Credit
- Support under the Immigration and Asylum Act 1999
- Universal Credit given earning is less than £7,400 a year (*post-tax*)

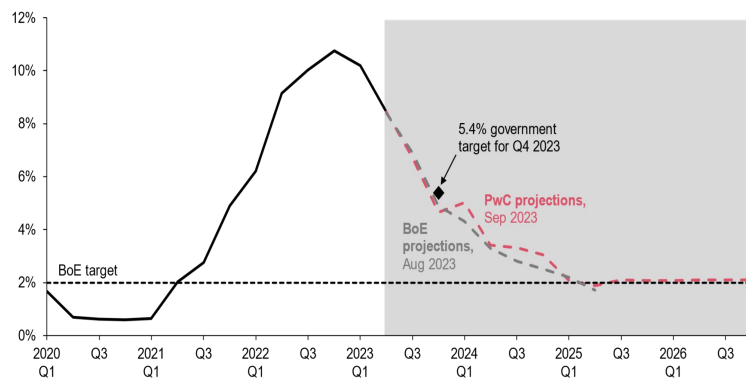
# Economic and policy developments continue to highlight the importance of providing an evidence base for FSM expansion

## Economic context

Ongoing economic developments further raises the importance of an assessment of expanding FSMs to a larger cohort of school children within England.

Data from the Bank of England and PwC's analysis indicates that headline inflation has eased recently, to 6.7% in September 2023. However this is still 5 percentage points above the Bank of England's target rate, with inflation not expected to return to the stable rate of 2% until mid-2025, with a 3.7% annual inflation rate forecasted for 2024. This is predominantly driven by the record increases in private rentals in the UK over the year to July 2023. Food prices have also been stark, over the two years to July 2023, food prices have risen by 29.3%. Previously it took 13 years to see the same increase in average food prices. This has meant that prices will continue to rise, even from their current elevated levels, and continue to put pressure on vulnerable households across the country. In this context, providing FSMs could help to alleviate the financial burden on low income households.

## UK Consumer Price Index<sup>1</sup>, projections from 2023 Q3



Source: PwC analysis and Bank of England projections

Recent inflation figures have also had a significant impact on living standards across the UK. Strikingly, food insecurity has risen sharply between 2022-2023 with nearly one-quarter (24.4%) of households with children reporting facing food insecurity in 2023, compared to 12.1% of households in 2022 ([Financial Times, 2023](#)). As addressed in the first report, by providing school children with a FSM, not only are there direct benefits i.e improvements in education, employment and health, but the provision is also estimated to generate wider benefits in terms of employment and economic activity generation, via the increasing supply chain activities required to supply the meals.

In this evolving and stark landscape, and as the debate around FSMs continues to be an important part of the political agenda across England, this report seeks to add a wider economic perspective to the direct benefit lens of the previous reports (noticeably these were the 'Education & Employment' and 'Health & Nutrition' pathways). In order to provide further detailed and robust evidence to inform this important debate.

The rest of this report is set out as follows:

1

**Approach** - setting out the methodological approach to estimate the findings, including the key assumptions and limitations that apply

2

**Results** - presents the findings from the wider contribution analysis of expanding FSMs to primary and secondary school students across London and England

3

**Technical Appendix** - sets out some of the more detailed assumptions and workings behind the wider contribution analysis.

1. The consumer price index is a commonly used measure of inflation





Section 3:

## Approach

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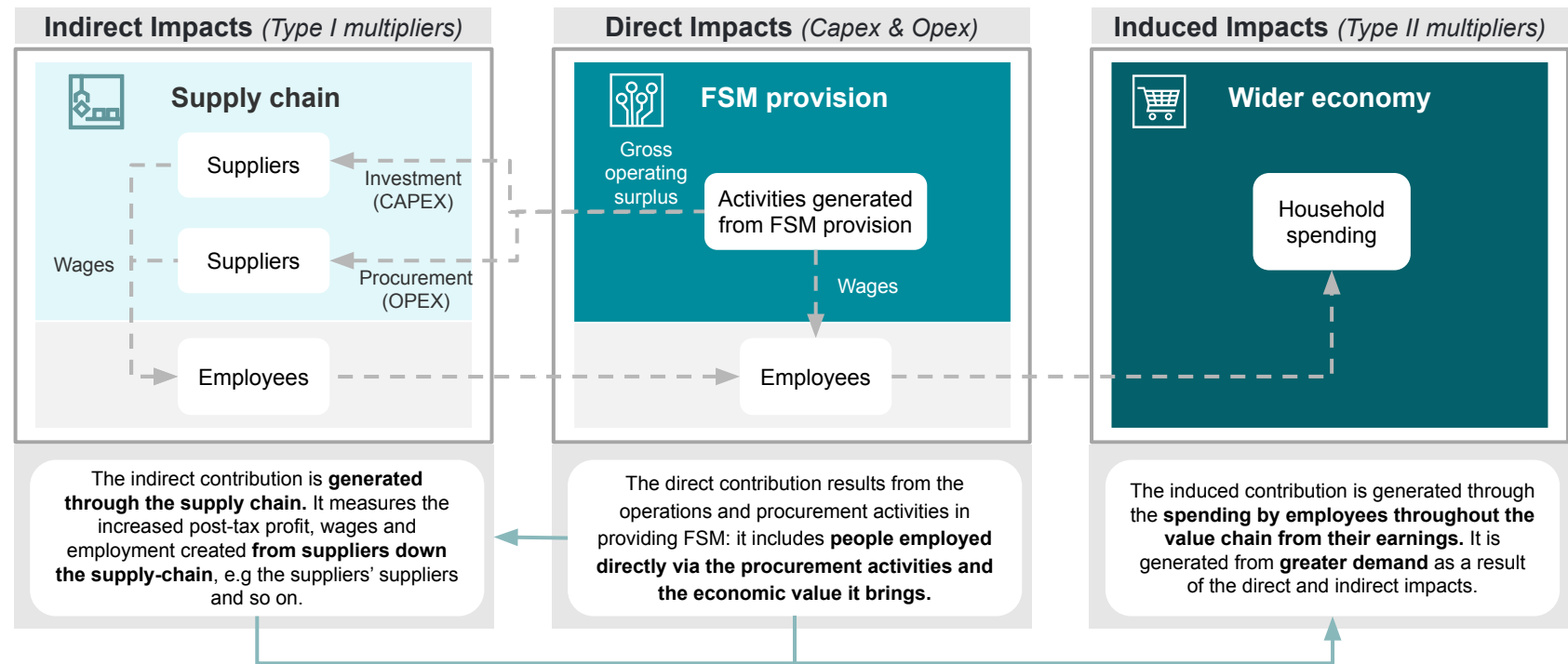
# Overview: GVA & employment was estimated to measure the economic impact of expanding FSM in London and England

In the rest of this report an analysis of the wider economic contribution of expanding FSM provision across primary and secondary schools in London and England is assessed, in terms of its contribution to Gross Value Added (GVA) and Employment supported as explained below:

**Gross Value Added ('GVA')** is widely used to communicate the total value created at industry and regional levels, which includes wages, profits, and other contributions that brings value within the production process. Like Gross Domestic Product, GVA is a measure of economic activity but at producer's prices, i.e. without taking into account indirect taxes (such as VAT, excise taxes, import duties) and subsidies.

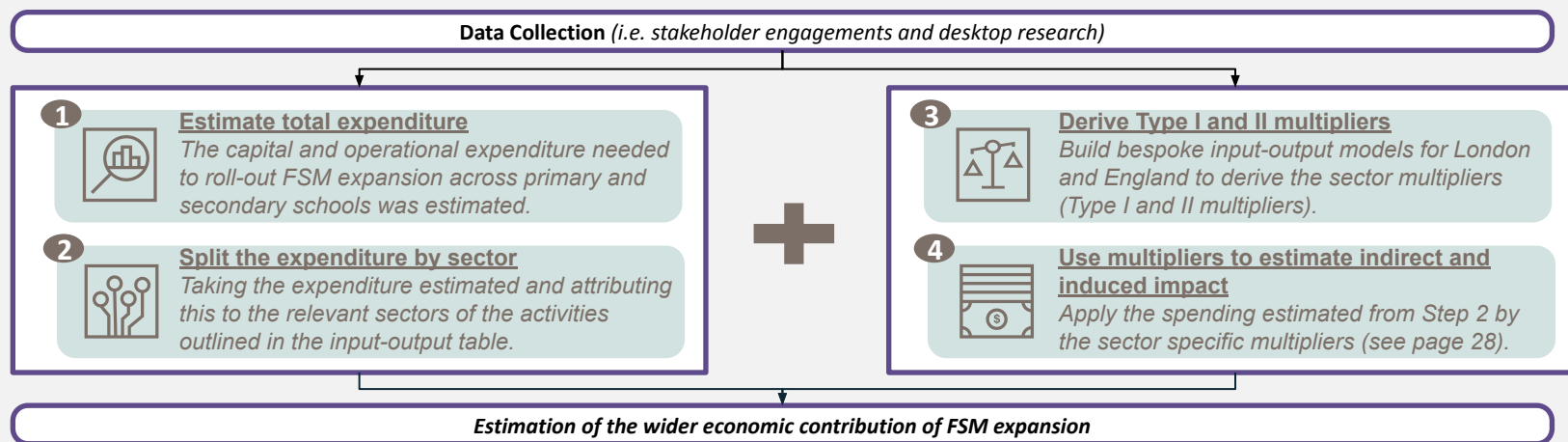
**Employment** is measured in full-time equivalents ('FTEs') per year which represents the number of full-time employees working in a given organisation and industry. This is to account for adjusting for the different hours of full-time, part-time and various other types of employees into a measurable full-time unit.

The contribution to the economy (i.e. GVA) and employment for London and England was measured using an input-output model ('IO' model), over a short to medium time period of 2024-2030. It is assumed that the feasibility of setting-up and rolling out the expansion of FSMs to primary and secondary schools in London and England will likely initiate in 2024 at the earliest. Covering a 7-year period sufficiently captures the economic contribution of rolling out the FSM expansion. In assessing the economic contribution, the direct, indirect and induced impacts for GVA and employment were estimated (per the illustration below); using the expenditures estimated and sector multipliers derived from the IO model. A detailed description of the approach can be found in the next page.



# Detailed approach: An established approach has been used to conduct the wider economic contribution of FSM expansion

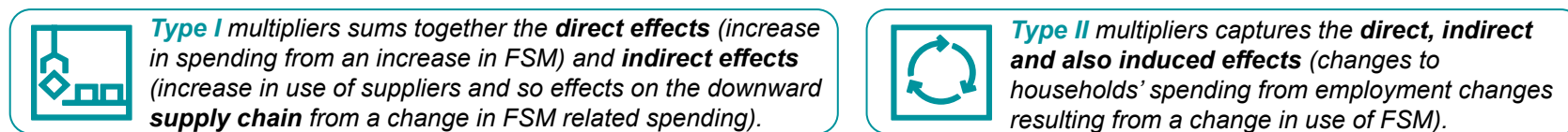
A four-step approach was taken in assessing the economic contribution of FSM expansion for primary and secondary schools in London and England (see the illustration below). To facilitate the approach and assumptions used, an extensive data collection process of desktop research and stakeholder engagements (i.e. Local Authorities, Catering Providers and Schools) was conducted over a 5 week period.



In undertaking the four step process outlined above, it is important to note that:

- The expenditure required to expand FSMs in London and England was split by the sector classifications defined by the International Standard Industrial Classification of economic activities (e.g. Manufacturing, Construction etc). To identify where the majority of FSM related productivity and employment effects occur on a sectoral basis, and
- A bespoke IO model for London and England was built using the UK’s 2019 IO table published by the Office for National Statistics<sup>1</sup> to derive sector multipliers (Type I and Type II) for London and England respectively. In order to estimate the wider economic impact from GVA and employment.

The IO table describes how products are used to produce further products in the economy and satisfy final output. For example, ingredients from the agriculture sector and packaging from the manufacturing sector is needed to produce a loaf of bread (final output). It is constructed by combining and transforming the **Use Table**, which provides data on inputs consumed by each sector, with the **Supply Table** which provides data on the outputs produced by each sector. The definition of Type I and Type II multipliers can be found below:



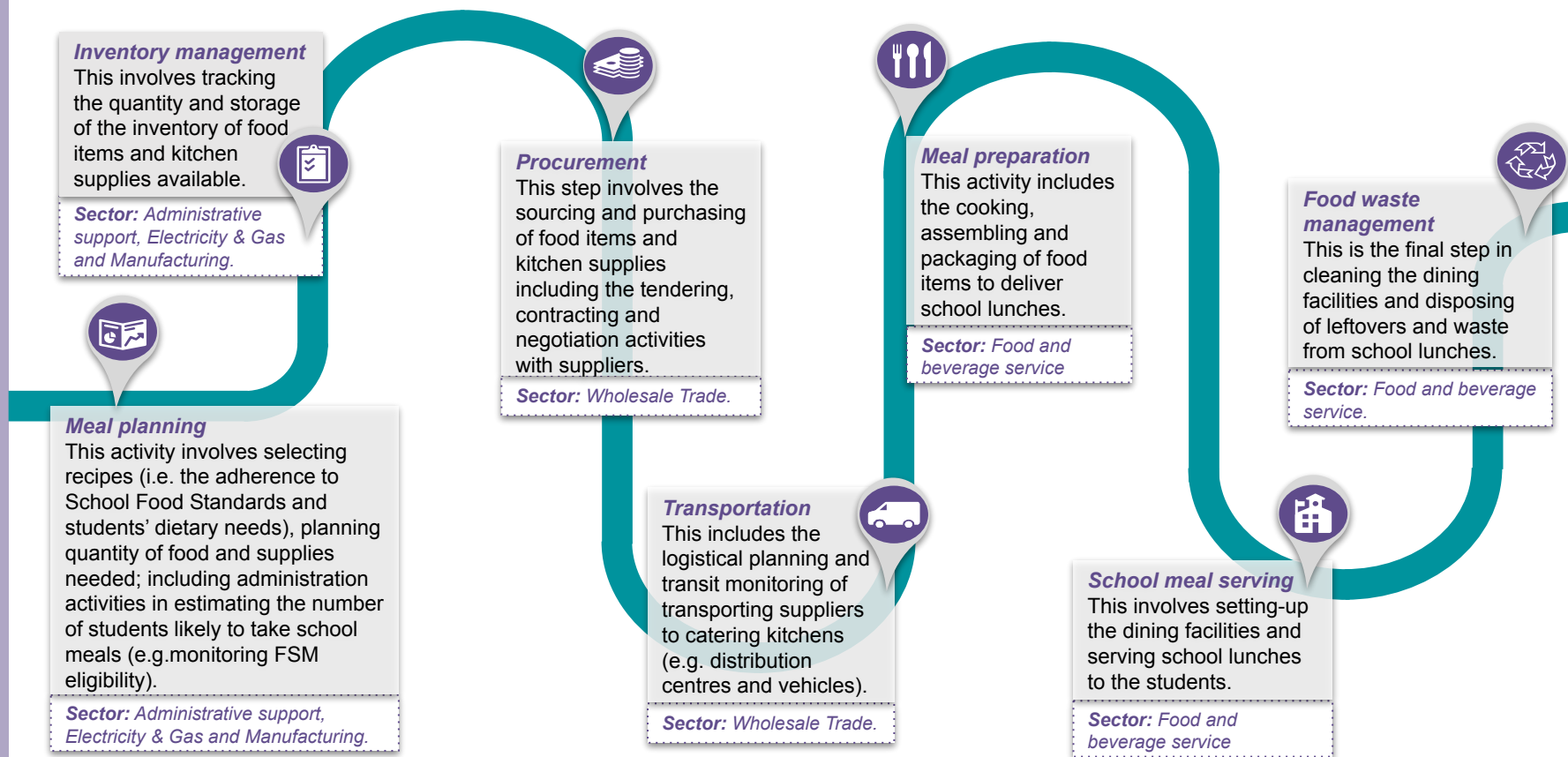
**Used to estimate the wider economic contribution of indirect and induced impact**

1. [Office for National Statistics \(2023\)](#), UK input-output analytical tables, industry by industry.

# Value chain: The catering system delivering school meals is complex and fragmented across London and England

In order to estimate the wider economic activity that FSM provision stimulates across the economy, the key activities and sectors that are involved throughout the FSM provision value chain, from meal planning to food waste management, needs to be mapped. However the catering system providing FSMs is complex and multi-dimensional given the differences in the interactions, structure and efficiencies across the value chain in catering for school meals across different regions.<sup>1</sup>

Therefore to assess the potential economic contribution from expanding FSM in primary and secondary schools across London and England, a detailed understanding of the main types of activities across the value chain to deliver school meals was obtained via stakeholder engagement and data review (see the illustration below). This allowed for a standardised value chain approach and representative sector alignment of key activities, to model the economic contribution from the significant supply chain activities, as set out in the next page.



1. For example, Academies may procure from one large wholesaler across its pool of schools or some schools may have a more centralised catering system compared to others e.g. having one distribution centre. As such these factors can have varying degrees of economies of scale in cost terms.

# Key evidence & data: Stakeholder engagement and secondary research have been used to inform the approach and results

To develop the approach in estimating the wider contribution of expanding FSM to primary and secondary schools across England and in London, work has been done collectively to assess the available evidence and agree on a set of assumptions to help fill the data gaps. The approach has considered:

- Using evidence and/or assumptions to identify the potential impact of FSM expansion on the supply chain. This has been based on a composite of evidence (from literature review and data collection); and
- Stakeholder engagement and technical judgement to inform the approach and assumptions made.

The results in the next section have been adjusted for inflation in order to put monetary values, i.e. GVA, in current prices (2023 prices). GVA impacts have also been discounted by 3.5% based on the HM Treasury's Green Book to bring the estimates to a net present value (see page 24 for the details).

## Limitations

The main limitations to the approach include:

- **Use of secondary evidence** - the analysis relies predominantly on secondary data sources to estimate the economic contribution of expanding FSM. Where some engagements with key school food stakeholders was undertaken in validating some of the assumptions and inputs used.
- **Average perspective** - the approach taken is from an average perspective rather than at individual level, e.g. it captures the average unit of expenditure by region. It is important to note that some of the average estimates may not be an accurate representation for specific individuals or schools due to their personal circumstances (e.g. faith schools) and catering models used (e.g. direct local procurement vs wholesale providers).

For detailed descriptions of the limitations see page 26.

## Assumptions

A set of key assumptions were used in estimating the wider contribution of FSM expansion in London and England, these were:

- **Take-up rate** - different take-up rates of school meals were assumed for the different regions and school phases based on the evidence reviewed, e.g. take-up rate assumed for primary schools in London was 90% and England was on average 87%.
- **Capital expenditure** ('capex') - a high capital investments per pupil was assumed for the first two years (2024-25) in line with Scotland's universal FSM provision for primary schools of c.£325 per pupil. This is assumed to fall to £100 capex per pupil from 2025 given the lower reinvestment needed over time.
- **Operational expenditure** ('Opex') - the government's funding per school meal was assumed to be the average opex needed to provide school meals, e.g. for London this was assumed to be £2.65 per pupil with an average of £2.64 per pupil in England (as the cost varied by region). The table below shows how the opex was broken down based on the supply chain activities identified on page 12:

Value chain activities	Main industry of the activity (relevant for sector multiplier assignment)	Opex split
School Admin & compliance	Administrative support	5%
Utilities (gas and electricity)	Electricity and gas industry	2%
Equipment Maintenance	Manufacturing industry	3%
Procurement & Transportation (Raw materials costs)	Wholesale Trade industry	38%
Meal preparation, serving and food waste management (Labour costs)	Food and beverage service activities	52%

Associated with meal planning & inventory management

See pages 24-25 for the detailed description of the assumptions made.

A child wearing a red puffer jacket, red knit hat with a pom-pom, and red tights is swinging on a blue swing set. The swing set has blue metal legs and black chains. The child is captured mid-swing, leaning back. The background shows a brick wall and a green fence. The ground is paved with grey tiles.

Section 4:

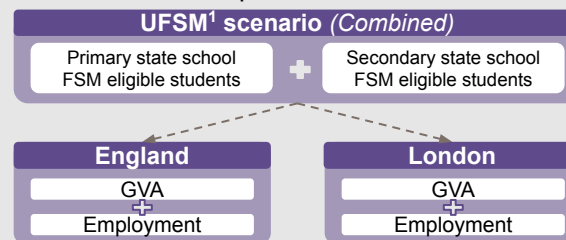
## Results

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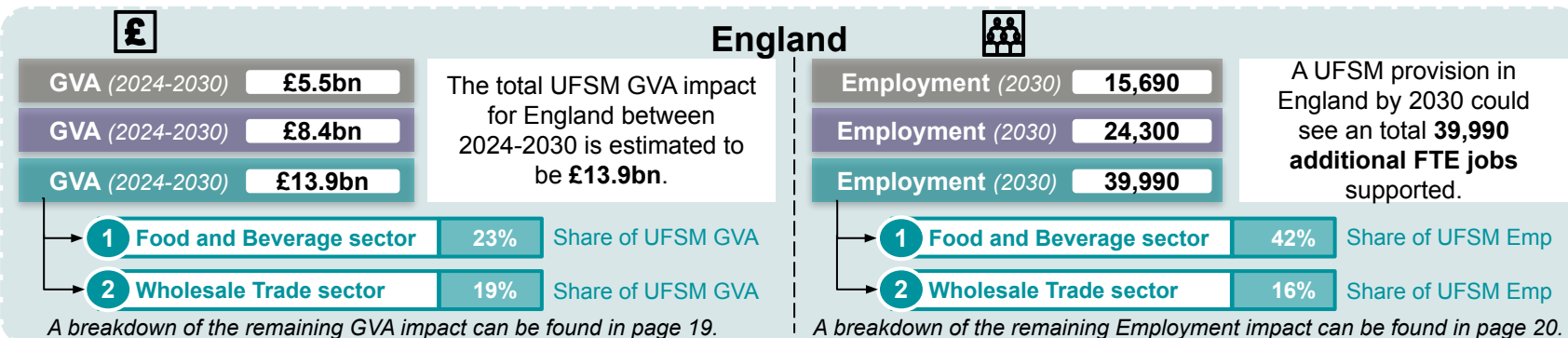
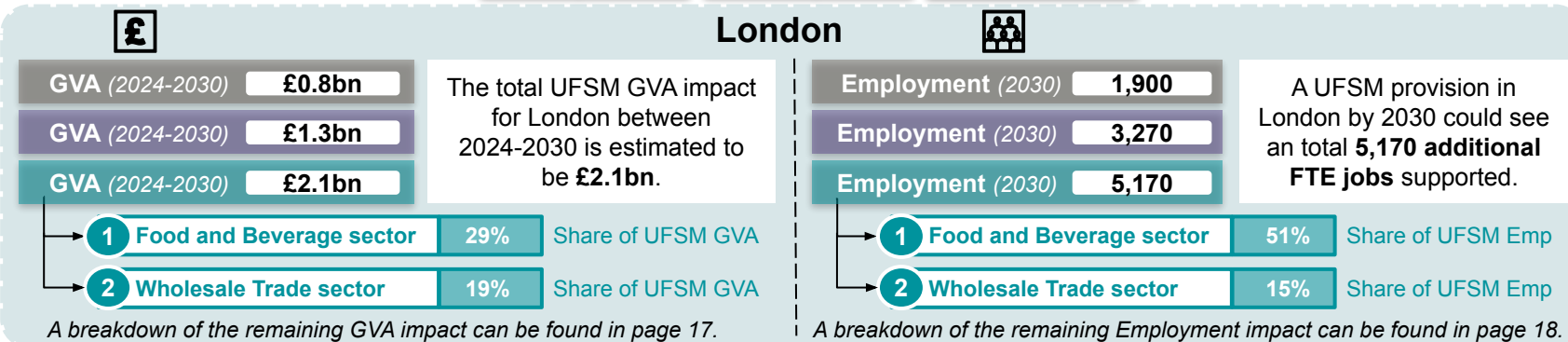
# Summary: Expanding FSM provision in London and across England stimulates strong economic benefits over time

This section sets out the estimated wider contribution (i.e GVA and employment) from expanding FSM to primary and secondary schools in London and England separately, as illustrated on the right. The results presented are based on the approach and assumptions set out in the preceding section. The GVA and employment impacts are displayed at each school phase and represents the total impact (i.e. direct, indirect and induced impacts), with the main insights summarised below as a precursor to the rest of this section which provides further detail.

In summary the analysis of the wider economic contribution from the expansion of FSMs is estimated to be significant in GVA terms, between **£2bn to £14bn** for London and England respectively, over the 2024-2030 period. In employment terms this activity is estimated to support between **5,000 to 40,000** annual jobs across London and England in 2030, with the majority of this impact occurring within the Food and Beverage and Wholesale Trade sectors. Of the total UFSM GVA and employment impacts, a larger proportion of these impacts are generated by secondary schools driven by the greater FSM eligibility cohort at secondary schools and higher average FSM prices relative to primary schools.



**Key:** Primary school Secondary school UFSM (Combined)

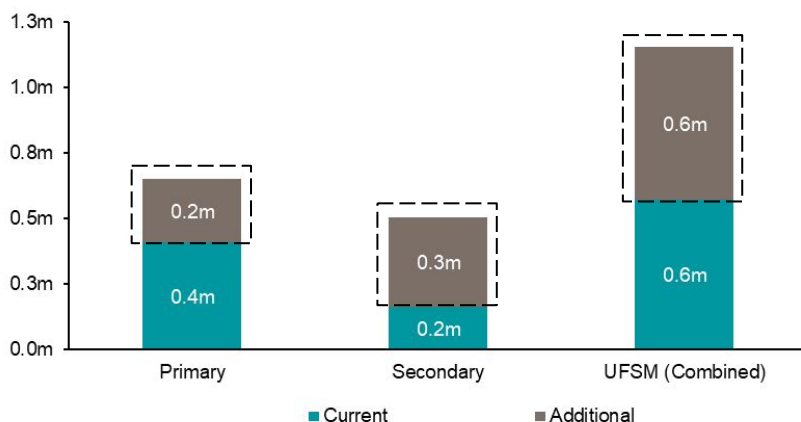


1. 'UFSM' is also referred to as 'Combined' in the results section as it combines the relevant primary and secondary economic contributions.

# Eligibility: A greater number of additional FSM eligible students are in secondary schools relative to primary schools

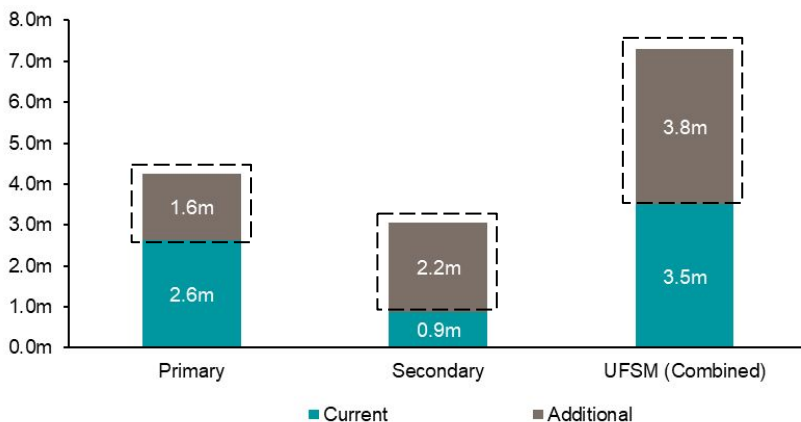
The current number of children eligible refers to all pupils currently eligible for means-tested FSM and/or in receipt of UIFSM in a given year (sourced from [GOV.UK](https://www.gov.uk)). The additional number of children eligible refers to the number of children who would be newly eligible for FSM under the UIFSM expansion scenario to primary and secondary schools. To estimate the additional FSM eligibility, the current number of children eligible was subtracted from the total pupil population in the same given year. To forecast eligibility estimates to 2030, the ONS' England pupil projections from [GOV.UK](https://www.gov.uk) were used. It is important to note, that the wider contribution of UIFSM expansion in the following result section is based of the additional pool of FSM eligible children.

**Figure 1: Current and additional number of children FSM eligible under the UIFSM scenario by school phase in London (2024)**



London	Primary	Secondary	UIFSM (Combined)
Current	0.4m	0.2m	<b>0.6m</b>
Additional	0.2m	0.3m	<b>0.6m</b>
<b>Total</b>	<b>0.6m</b>	<b>0.5m</b>	<b>1.2m<sup>1</sup></b>

**Figure 2: Current and additional number of children FSM eligible under the UIFSM scenario by school phase in England (2024)**



England	Primary	Secondary	UIFSM (Combined)
Current	2.6m	0.9m	<b>3.5m</b>
Additional	1.6m	2.2m	<b>3.8m</b>
<b>Total</b>	<b>4.2m</b>	<b>3.1m</b>	<b>7.3m</b>



# GVA: Investing in UFSM across London could generate over £2bn of GVA to the region between 2024-2030

Figure 3: Total GVA contribution for UFSM provision by impact type in London (2024-2030, discounted)

## GVA impact

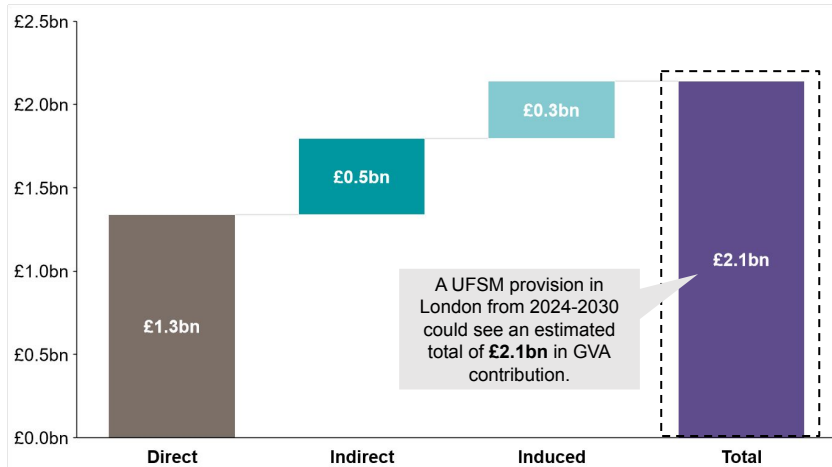
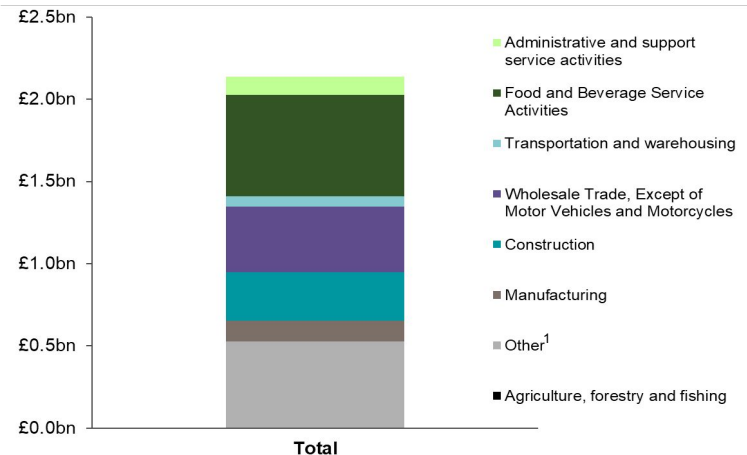


Figure 4: GVA impact for UFSM provision by sector in London (2024-2030, discounted)

## GVA impact



### Key Insights:

- **Direct GVA** - The estimated direct GVA impact of **£1.3bn** associated with UFSM provision contributes **c.63%** to the total GVA impact for 2024-2030.
- **Indirect GVA** - The estimated indirect GVA impact of **£0.5bn** from the wider supply chain activities contributes **c.21%** towards the total GVA impact for 2024-2030.
- **Induced GVA** - The induced GVA impact of **£0.3bn** associated with the direct and wider employee spending in the economy, contributes **c.16%** towards the total GVA impact.



### Key Insights:

- The majority of the total GVA impact comes from the **Food and Beverage industry**, which is estimated to contribute **£0.6bn** to the London economy, representing **c.29%** of the total 2024-30 GVA impact.
- A large amount of the remaining total GVA impact is generated by the **Wholesale Trade industry**, contributing **£0.4bn** to the economy and representing **c.19%** of the total GVA impact. Furthermore, the **Construction industry** is estimated to contribute **14%** of the 2024-2030 GVA impact.

1. The 'Other' sector classification covers 16 remaining Standard Industrial Classification (SIC) sectors (including for e.g. 'Mining and Quarrying', 'Real estate' and 'Information and communication' sectors etc). These have been grouped as individually they generate a small economic contribution from FSM related provision.

# Employment: Investing in UFSM across London could support 5,170 FTE jobs in the region in 2030

Figure 5: Employment contribution for UFSM provision by impact type in London (in 2030)

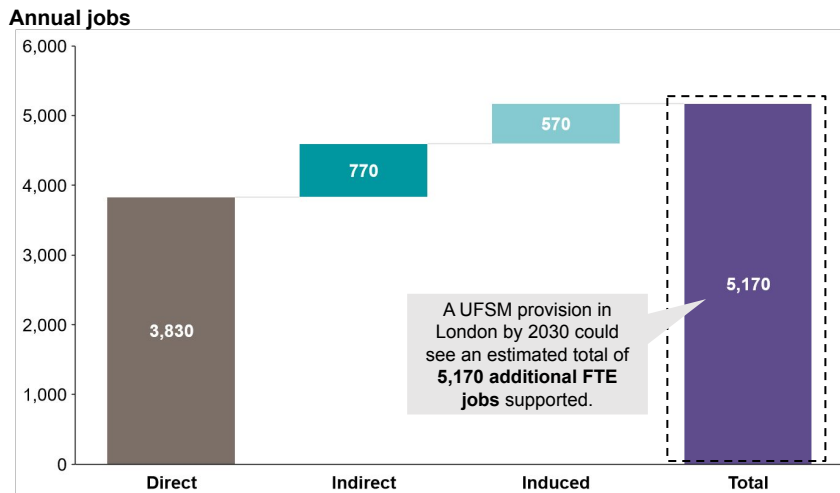
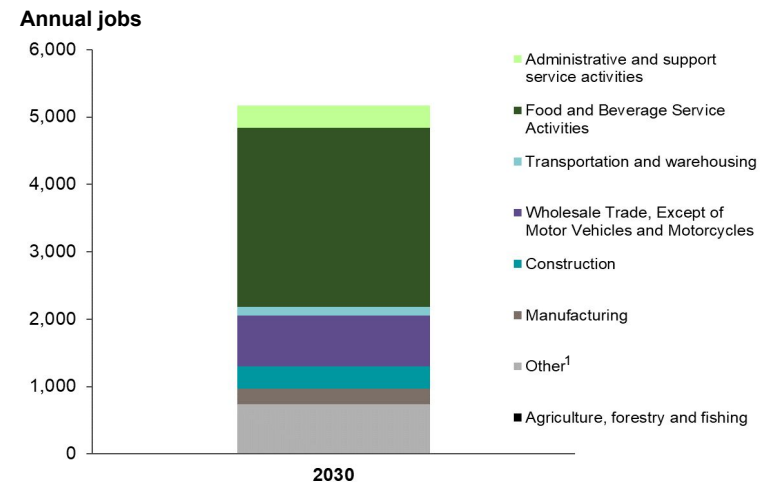


Figure 6: Employment impact for UFSM provision by sector in London (in 2030)



## Key Insights:

- **Direct Employment** - The estimated direct employment impact of **3,830 additional jobs** from UFSM provision has a **c.74%** share of the total 2030 employment impact.
- **Indirect Employment** - The estimated indirect employment impact of **770 additional jobs** from the wider supply chain activities contributes **c.15%** towards the total 2030 employment impact.
- **Induced Employment** - The induced employment impact of **570 additional jobs** associated with direct and wider employee spending in the economy, contributes **c.11%** towards the total 2030 employment impact.



## Key Insights:

- In line with the GVA analysis, the vast majority of the estimated 2030 employment impact is generated by the **Food and Beverage industry**, which could see **2,650 additional FTE jobs** supported in London, representing **c.51%** of the total 2030 employment impact.
- A high proportion of the remaining 2030 employment impact is estimated to occur within the **Wholesale Trade industry**, which could support **750 additional FTE jobs** in London, representing **c.15%** of the total 2030 employment impact.

1. The 'Other' sector classification covers 16 remaining Standard Industrial Classification (SIC) sectors (including for e.g. 'Mining and Quarrying', 'Real estate' and 'Information and communication' sectors etc). These have been grouped as individually they generate a small economic contribution from FSM related provision.

# GVA: Investing in UFSM across England could generate £14bn of GVA to the region between 2024-2030

Figure 7: Total GVA contribution for UFSM provision by impact type in England (2024-2030, discounted)

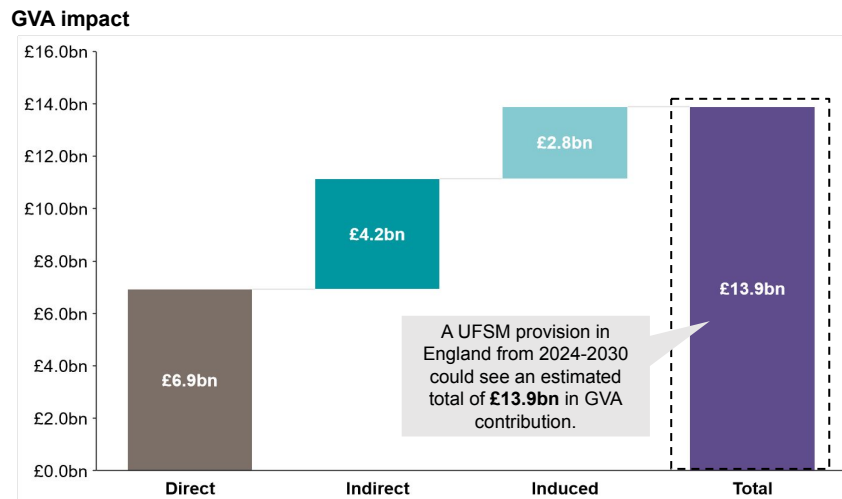
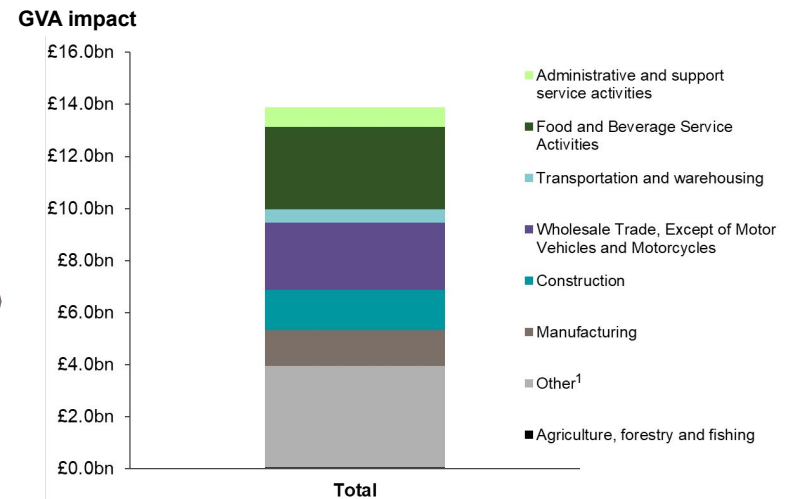


Figure 8: GVA impact for UFSM provision by sector in England (2024-2030, discounted)



## Key Insights:

- **Direct GVA** - The estimated direct GVA impact of **£6.9bn** associated with UFSM provision contributes **c.50%** to the total GVA impact for 2024-2030.
- **Indirect GVA** - The estimated indirect GVA impact of **£4.2bn** from the wider supply chain activities contributes **c.30%** towards the total GVA impact.
- **Induced GVA** - This is followed by the induced GVA impact of **£2.8bn** associated with the direct and wider employee spending in the economy, which contributes **c.20%** towards the total GVA impact.



## Key Insights:

- The majority of the total GVA impact is generated by the **Food and Beverage industry**, which is estimated to contribute **£3.6bn** to England's economy and represents **c.23%** of the total 2024-30 GVA impact.
- A significant proportion of the remaining GVA impact is driven by the **Wholesale Trade industry**, contributing **£2.9bn** to the economy, representing **c.19%** of the total GVA impact. Whilst the **Manufacturing** and **Construction** sectors both represent over **10%** of the total 2024-2030 GVA impact.

1. The 'Other' sector classification covers 16 remaining Standard Industrial Classification (SIC) sectors (including for e.g. 'Mining and Quarrying', 'Real estate' and 'Information and communication' sectors etc). These have been grouped as individually they generate a small economic contribution from FSM related provision.

# Employment: Investing in UFSM across England could support 39,990 FTE jobs in the region in 2030

Figure 9: Employment contribution for UFSM provision by impact type in England (in 2030)

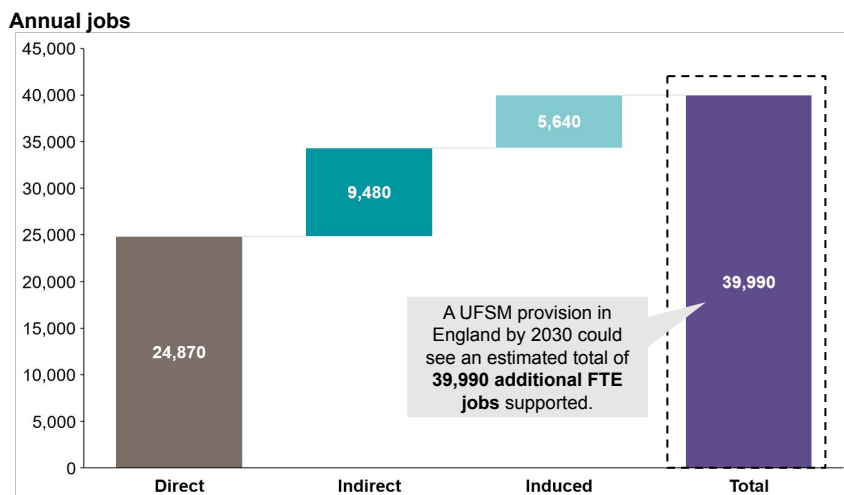
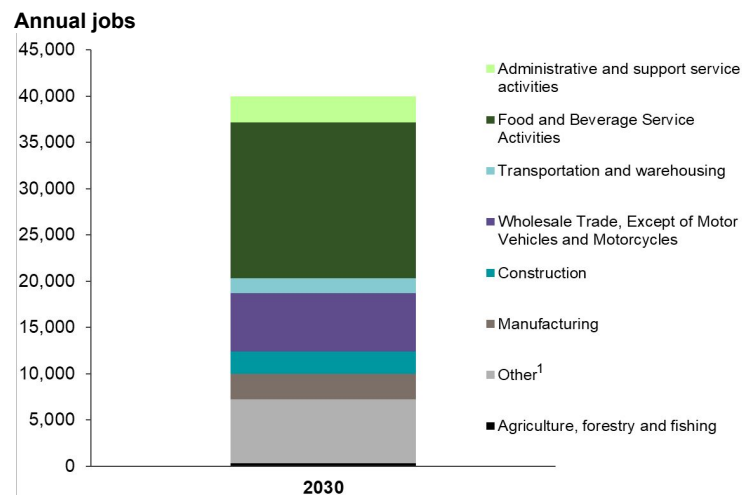


Figure 10: Employment impact for UFSM provision by sector in England (in 2030)



## Key Insights:

- **Direct Employment** - The estimated direct employment impact of **24,870 additional FTE jobs** from UFSM provision contributes c.**62%** share of the total 2030 employment impact.
- **Indirect Employment** - The estimated indirect employment impact of **9,480 additional FTE jobs** from the wider supply chain activities is estimated to contribute **c.24%** towards the total 2030 employment impact.
- **Induced Employment** - This is followed by the induced employment impact of **5,640 additional FTE jobs** associated with direct and wider employee spending in the economy, contributing **c.14%** towards the total 2030 employment impact.



## Key Insights:

- The vast majority of the estimated 2030 employment impact is generated by the **Food and Beverage industry**, which could support **16,860 additional FTE jobs** in England, representing **c.42%** of the total 2030 employment impact.
- The **Wholesale Trade** industry also contributes significantly, which could see **6,300 additional FTE jobs** supported in England, representing **c.16%** of the total 2030 employment impact. Whilst the **Manufacturing** and **Administrative industries** are estimated to contribute **c.7%** to the total employment impact.

1. The 'Other' sector classification covers 16 remaining Standard Industrial Classification (SIC) sectors (including for e.g. 'Mining and Quarrying', 'Real estate' and 'Information and communication' sectors etc). These have been grouped as individually they generate a small economic contribution from FSM related provision.



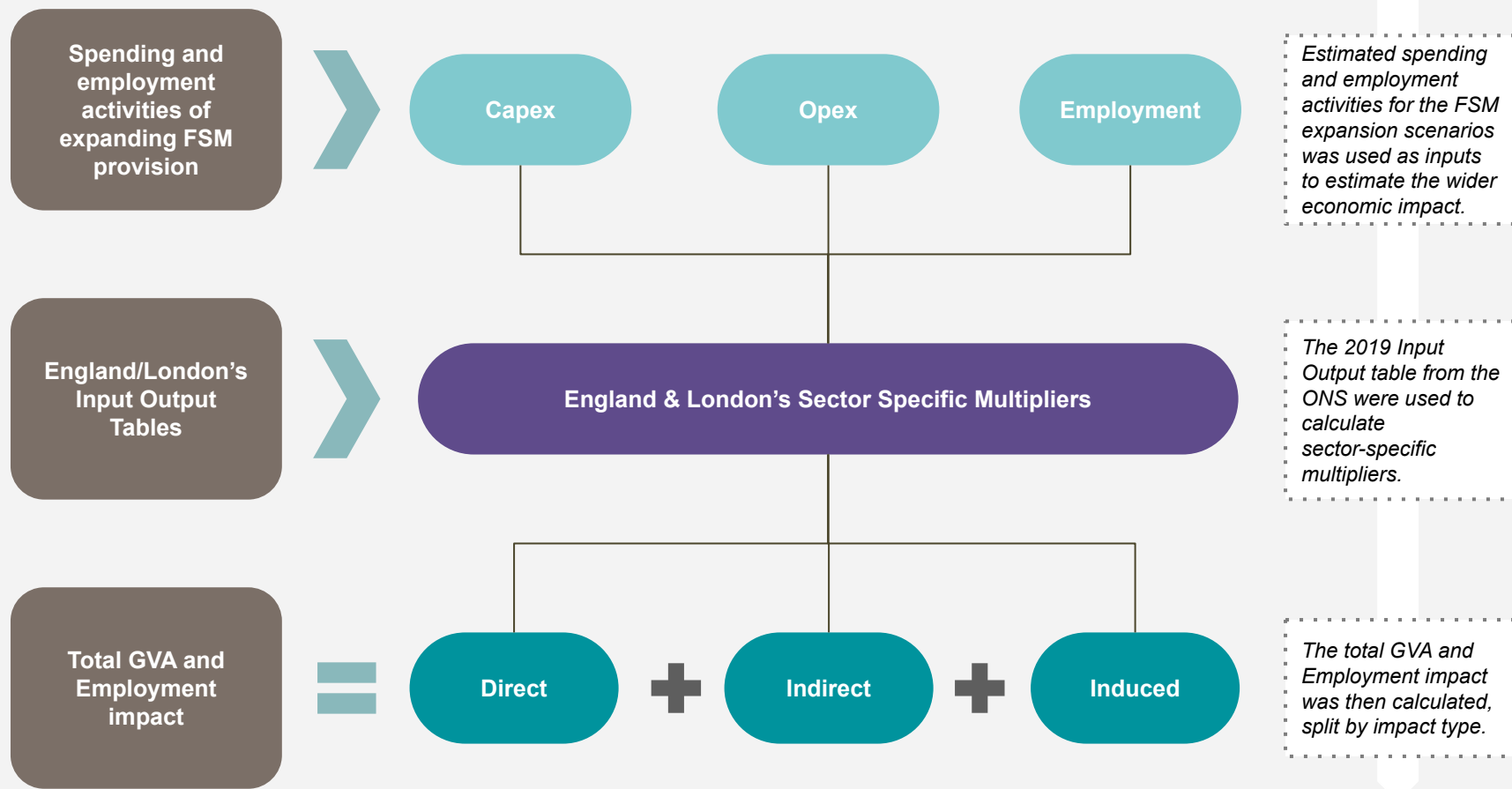
Section 5:

## Technical Appendix

Impact  
on **Urban  
Health**

# Key steps: Financial data and the input-output table have been used to measure FSM related GVA and employment impacts

The illustration below outlines the overarching steps taken to estimate the wider contribution in terms of GVA and employment impacts associated with expanding FSMs to primary and secondary schools in London and England. In the rest of the Technical Appendix section, a detailed description of the approach and assumption taken for each step has been provided.






# Stakeholder engagement: Engaging with key stakeholders involved in delivering school meals allowed a higher level of analytical assurance



A number of assumptions have been made and used to inform the approach taken in estimating the wider economic contributions of UFSM. To make these assumptions as robust and reflective of the ‘average’ school as possible, the assumptions were checked and validated with 12 key stakeholders involved in delivering school meals, i.e. catering providers, local authorities, schools and consultancies. This engagement process was agreed with IoUH given the timescale available in conducting the analysis. Where a targeted number of stakeholder interviews had been undertaken and it is worth noting that there was broad consistency in the insights provided across the stakeholders.

An overview of the stakeholders engaged with has been provided below:

Stakeholders		Number of stakeholders
 <b>Catering Provider &amp; School</b>	<ul style="list-style-type: none"> <li>Catering providers helped in building a better understanding of the value chain involved in producing school meals.</li> <li>Whilst school stakeholders provided useful on-the-ground insights.</li> </ul>	4
 <b>Local authority</b>	<ul style="list-style-type: none"> <li>Local authorities assisted in building an understanding of the different processes involved in securing funding and the recent London roll-out.</li> </ul>	4
 <b>Consultancy &amp; Charity</b>	<ul style="list-style-type: none"> <li>Consultancies and Charities provided both subject matter insights into the processes of school meals provision and the catering industry, whilst providing relevant secondary data materials.</li> </ul>	4

It is worth noting that although it appears there is no overlap between the different types of stakeholders engaged with, many of these stakeholders provided advice across more than one, and often all three, of these categories. Reflecting the cross cutting nature of FSM provision across London and England.

# Assumptions: A number of assumptions were made across the key inputs for the primary school stage of FSM provision

To supplement understanding of the results presented in the main report, the following table outlines the key assumptions and limitations that were applied in estimating the wider economic contribution of expanding FSM across the primary school setting in London and England. The following page presents this information for secondary schools.

Primary schools	England Analysis	London Analysis
1. Take-up rate	87% on average (this varies by region given <a href="#">current FSM eligibility dataset</a> , and a similar uplift to London's 90% take-up is assumed for each region).	90% ( <a href="#">Greater London Authority</a> )
2. Cost per school meal	£2.64 on average (this varies across regions where the £2.65 London price point is used to rebase the 2011-12 regional split given by the <a href="#">School Food Trust</a> , this is equivalent to a 36% uplift).	£2.65 ( <a href="#">Greater London Authority</a> )
3. Breakdown of opex	52% labour, 38% raw materials, 5% school administration, 3% equipment maintenance, 2% utilities (Based on <a href="#">School Food Plan</a> and stakeholder engagements).	
4. Capex	The first two years (2024-25) capex per pupil is based on the capital injections used in Scotland for UPFSM provision (where a total capex budget of <a href="#">£30 million</a> equivalent to <b>£325 per pupil</b> has been used to extend school meal provision from Year 5-6), this has been equally distributed across the two years. Whilst a random sample of <a href="#">capex by Local Authorities</a> per region was used to account for the regional differences. The regional capex per pupil was then split by 30% for equipment activities and 70% for construction activities, based on Scotland's UPFSM roll-out ( <a href="#">West Lothian council</a> ). Beyond 2025, the capex per pupil has been rebased to a lower rate of <b>£100</b> for the remaining years ( <a href="#">IFS</a> ) whilst maintaining regional differences as fewer reinvestment is needed overtime.	
5. FSM eligible population (additional)	The current eligibility was derived by accounting for the number pupils currently eligible for means-tested FSM and/or in receipt of UIFSM using the ONS' FSM eligibility dataset from <a href="#">GOV.UK</a> . This was then subtracted from the total pupil population to estimate the additional FSM eligibility pool (c.1.7m in 2022 for England). To forecast this to 2030, the ONS' England pupil projections (from <a href="#">GOV.UK</a> ) were applied.	
6. Social Discount Rate adjustment	The monetary values (i.e. GVA) has been discounted using the HM Treasury's Green Book standard discount rate of 3.5%, in order to bring the estimates to a net present value so that they are comparable for a given year and to account for society's time preference (where society values the present compared to the future).	
7. Inflation adjustment	All monetary values are in current prices (2023 prices) to ensure that they can be compared across different points in time. To adjust these values, the GDP deflator has been used as it is a known metric to adjust for inflation.	



# Assumptions: The same input approach has been applied to secondary schools with variations in take up rates and meal prices

In assessing the wider economic contribution of a UFSM scenario, it is necessary to update some of the assumptions seen on page 24 for a secondary school setting, to take account for differences in pupil numbers and costs etc. The key assumption change includes accounting for the secondary school pupil population which increases the total number of additional children eligible for FSMs. However, other differences are more nuanced, e.g., the varied eating habits and catering experiences of secondary school children means that the take-up rate is lower relative to primary school pupils, these changes are presented in the table below:

**Key:** ✨ Differences in input assumptions relative to UFSM scenario

	England Analysis		London Analysis	
	Secondary school	UFSM Analysis (Combined)	Secondary school	UFSM Analysis (Combined)
1. Take-up rate ✨	82% on average	85% on average	85%	88% on average
2. Cost per school meal ✨	£2.79 on average	£2.71 on average	£2.78	£2.71 on average
3. Breakdown of opex	52% labour, 38% raw materials, 5% school admin, 3% equipment maintenance, 2% utilities (Based on <a href="#">School Food Plan</a> and stakeholder engagements).			
4. Capex	This includes the sample of secondary school capex data points provided by Local Authorities for each region to account for the regional differences in capex and follows the same calculation processes as with the the primary school analysis outlined in the previous page.			
5. FSM eligible population (additional) <sup>1</sup>	2.1m (2022)	3.8m (2022)	0.3m (2022)	0.6m (2022)

*Note: The methods of data collection and calculations are unchanged as highlighted in the primary school analysis on page 24.*

1. The calculation for the FSM eligible population (additional) metric under the UFSM scenario is consistent with the calculation used in estimating primary school FSM eligibility on page 24, but is based on the data for both primary and secondary school pupils.

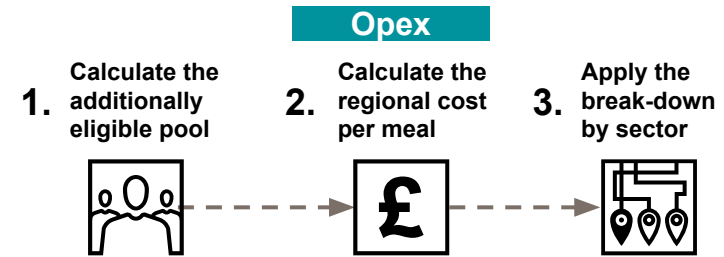
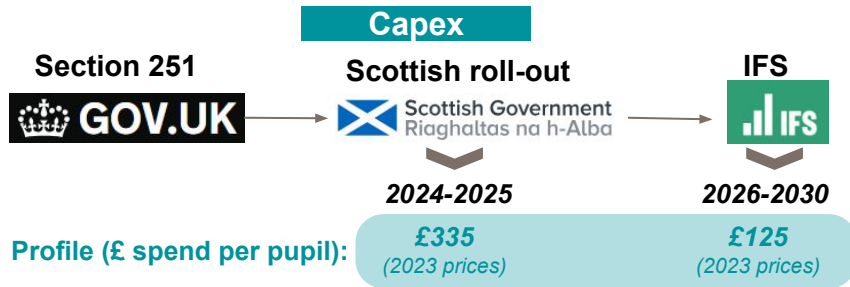
## Limitations: There are several key limitations underpinning the UFSM analysis

The FSM sector is complex and multi dimensional, involving a multitude of economic actors and sectors. It has therefore not been possible to account for all of the variations within the FSM sector in this report. The table below provides a detailed outline of the key limitations that underpins the analysis of the wider economic impacts from FSMs presented on pages 14-20. These are deemed acceptable given the level and robustness of data available to date and the scope of the work.

Key limitations	Description of the limitation
<b>Use of secondary evidence</b>	The analysis relies predominantly on secondary data sources to estimate the economic contribution of expanding FSM. Some engagement with key school food stakeholders was undertaken in order to validate some of the assumptions and inputs used within the analysis. Instead, the analysis has relied on current and historic data to supplement the key inputs used.
<b>Average perspective</b>	The approach taken is from an average perspective rather than at individual level, e.g. it captures the average unit of expenditure by regions. It is important to note that some of the average estimates may not be an accurate representation for specific individuals or schools due to their personal circumstances (e.g. faith schools) and catering models used (e.g. direct local procurement vs wholesale providers). The results should, therefore, be interpreted as an estimate of the average wider benefits associated with expanding FSM.
<b>Regional disparities</b>	Where possible, the analysis has reflected some regional disparities (specifically take-up rates, school meal costs and pool of additional FSM eligible children). However, it should be recognised that there are other regional differences (e.g. provision in rural areas vs urban areas) that could affect some of the assumptions and key inputs used in the analysis that could not be robustly captured given the level of data available to date.
<b>Source of Procurement</b>	There are different sources of procurement available in the school catering setting i.e. sourced from local producers or national wholesalers. However, given the data available, insights from stakeholder engagements and current approach to procurement in England (which is largely procuring from wholesalers), the analysis has assumed a wholesaler procurement model. This has meant that the relevant Wholesaler industry multiplier has been used in measuring the wider contribution related to this activity.
<b>Uses stock estimates</b>	The approach uses the initial stock estimates of the number of children eligible for FSMs under the UFSM scenario and forecasts the year-on-year changes to estimate the number of additional eligible children expected to be in receipt of FSMs. The analysis does not account for the number of children who flow in and out of the eligibility pool over the whole period nor does it account for the flows between school phases. This limitation also applies for the incremental employment impact measured.
<b>Homogeneity</b>	School children is a heterogenous group, especially in terms of their financial status, dietary requirements and socioeconomic backgrounds which could influence each individuals' uptake of FSMs. Consequently some children will take-up FSMs and receive more benefits than others or at varying degrees. This report uses average values for the wider contribution associated with FSM expansion and so assumes homogeneity across the targeted population, due to limitations in the data available to account for these differences.

# Key input data: The capex and opex estimates derived are a key inputs into the Input-Output model

Using evidence from the stakeholder engagement process and desktop research, estimates were derived regarding the average capex and opex associated with FSMs, in terms of the level, coverage and duration of such spend. In order to estimate the direct (and therefore indirect and induced) economic impact associated with UFSM within the Input-Output model. A detailed breakdown of the approach taken to calculate these expenditures have been provided below.



To account for regional disparities in costs, a sample of three local authorities per region was randomly selected from the Section 251 educational spend database for 2019-20. For the first two years (2024-25) capex per pupil were rebased on the basis of the capital injections used in Scotland for UPFSM provision, and distributed equally across these two years. The regional capex per pupil was then split by the 30% allocation for equipment activities and 70% for construction activities, based on Scotland's UPFSM roll-out ([West Lothian council](#)). Beyond 2025, the capex per pupil numbers were then rebased to a lower rate of £100 for the remaining years ([IFS](#)) whilst maintaining the regional differences in costs.

**Average opex levels were estimated by:**

1. Estimating the pool of additionally eligible students under UFSM expansion, by deducting those currently eligible from the total student population, and applying regional take-up rates.
2. These student figures were subsequently multiplied by the regional cost per meal to derive a daily cost figure, and multiplied by 190 days to estimate the annual cost.
3. This annual opex was further broken down into the relevant industry in which the activity takes place (e.g. Food and beverage, Manufacturing etc). See page 13 for the industry weightings.

Figure 11: Incremental expenditure for London (2024-2030)

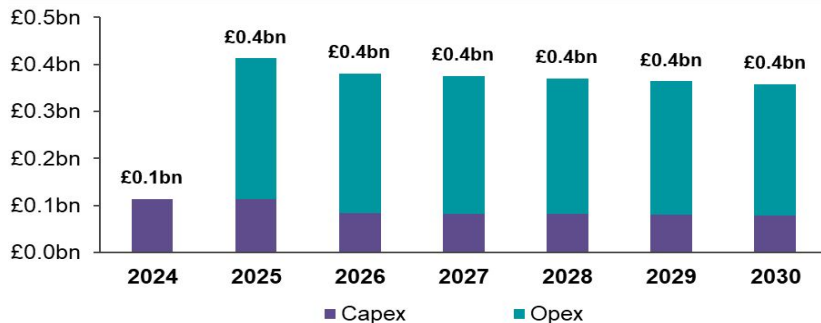
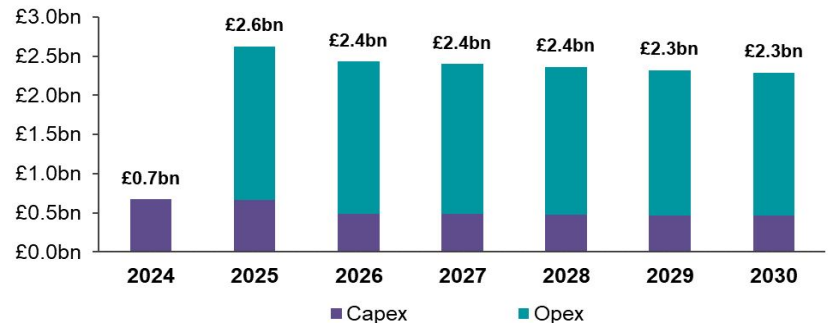


Figure 12: Incremental expenditure for England (2024-2030)



# Multipliers: To calculate the indirect and induced impact of FSMs, Type I and Type II multipliers have been derived from the IO table



The **IO table** describes how products are used to produce further products in the economy and satisfy final output. For example, ingredients from the agriculture sector and packaging from the manufacturing sector are needed to produce a loaf of bread (final output). It is constructed by combining and transforming the **Use Table**, which provides data on inputs consumed by each sector, with the **Supply Table** which provides data on the outputs produced by each sector.

The UK 2019 IO table published by the Office for National Statistics<sup>1</sup> was used to derive sector multipliers (Type I and Type II), to estimate the wider economic impact (i.e GVA and employment) to London and England. The definition of Type I and Type II multipliers has been provided below:



**Type I** multipliers sums together the **direct effects** (increase in spending from an increase in FSM) and **indirect effects** (increase in use of suppliers and so effects on the downward **supply chain** from a change in FSM related spending).



**Type II** multipliers captures the **direct, indirect and also induced effects** (changes to households' spending from employment changes resulting from a change in use of FSM).

Below outlines how the sector multipliers were used in measuring the contribution to the economy and employment of FSM expansion<sup>2</sup>:

## 1 Direct

- The direct contribution results from the operations and procurement activities in providing FSMs: it includes **people employed directly via the procurement activities and the economic value it brings.**

$$\text{GVA per output by sector} \times \text{Sector spending} = \text{Direct GVA by sector}$$

## 2 Indirect

- The indirect contribution is **generated through the supply chain.**
- It measures the increased post-tax profit, wages and employment created **from suppliers down the supply-chain**, e.g the suppliers' suppliers and so on.

$$\text{Type I multipliers} \times \text{Sector spending} = \text{Indirect GVA by sector}$$

## 3 Induced

- The induced contribution is generated through the **spending by employees throughout the value chain from their earnings.**
- Increased post-tax profit, wages and employment **generated from greater demand as a result of the direct and indirect impacts.**

$$\text{Type II multipliers} \times \text{Sector spending} = \text{Induced GVA by sector}$$

1. [Office for National Statistics \(2023\)](#), UK input-output analytical tables, industry by industry.  
 2. Note the GVA calculation approach presented under the direct, indirect and induced impacts are the same for the employment impacts.

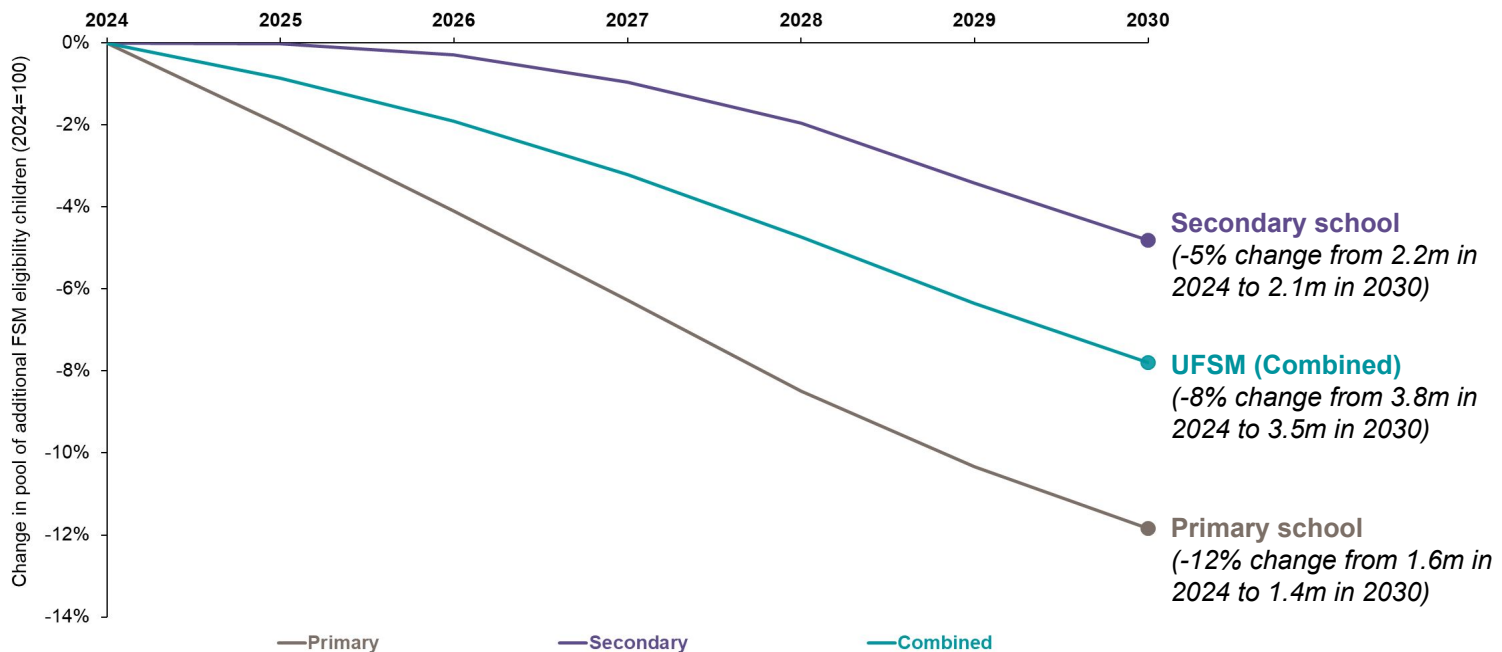
# Eligibility: The pool of additional FSM eligible children shrinks over the 2024-2030 period analysed



As presented in the graph below, the pool of additional FSM eligible children shrinks between 2024 and 2030 per the Government's pupil population projections for England over time. Since the Government's pupil population projections have been modelled based on an ongoing slowdown in birth rate since 2013 resulting in a reduction of the population of young school children overtime. These projections has meant that primary populations shrink the quickest, as they are most affected by the slowing birth rate over the 7-year period, whilst it takes secondary schools until 2027 to see a significant drop-off in the FSM eligibility population sizes.

The downward trend in England's pupil population has a direct impact on GVA and employment as these effects are derived from the additional number of FSM eligible children.

Figure 13: Change in the pool of additional eligible children across England, split by different school phases (2024-2030)



Note: The UFSM (Combined) scenario is the average of secondary and primary projections.

# Both GVA and employment impacts see a gradually decreasing trend in London once operations begin in 2025...

Figure 14: Incremental GVA contribution by spending type in London (2024-2030)

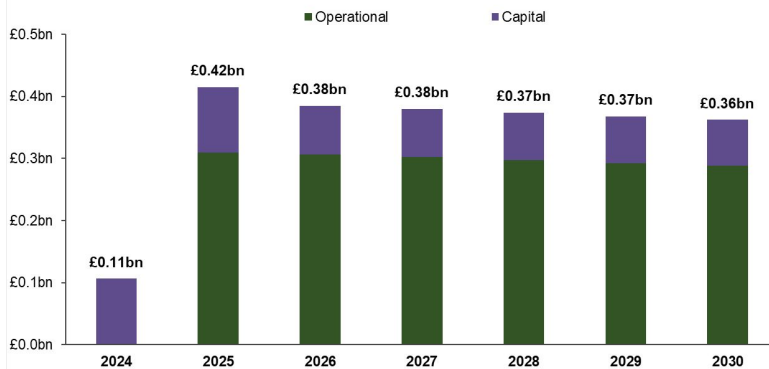
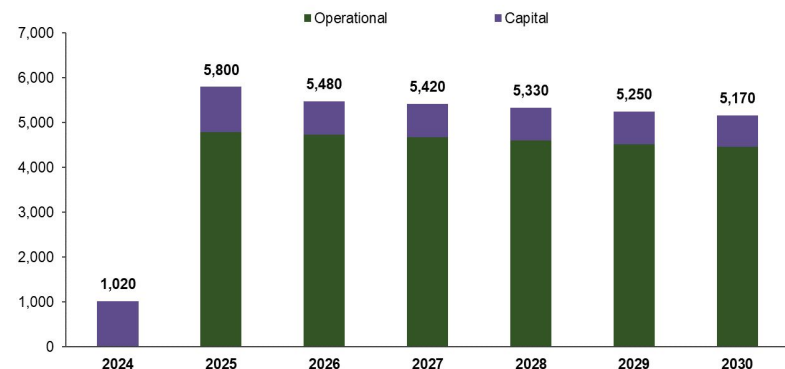


Figure 15: Incremental Employment contribution by spending type in London (2024-2030)



## Key Insights:

- **Capex GVA** - In 2024, the GVA impact of **£0.1bn** is driven by the initial high capital injection required (e.g. building development and purchase of machinery) to expand FSM provision to all state-funded primary and secondary school students in London. Capex related GVA impact remains relatively constant thereafter at **£76m**. This slowly declining trend in capex over time is due to shift in expenditure from overhead investment towards ongoing maintenance.
- **Opex GVA** - Over the 2025-2030 period, the GVA impact from operational spending in providing UFSM in London outweighs capital spending, contributing on average of **£0.3bn** which is **c.79%** of the total GVA impact. The vast majority of this GVA impact is derived from the **Food and Beverage industry**, which contributes **80%** of the 2030 GVA impact.



## Key Insights:

- **Capex related employment** - There is an estimated **1,020 of additional FTE jobs** supported in 2024 from FSM related capex. These are largely from within the construction (**c.52% of the 2024 total**) and manufacturing industries (**c.16% of the 2024 total**). The drop in employment impact between 2025-2026 period is due to the fall in construction and manufacturing related activities, given the reduction in capex over time.
- **Opex related employment** - There is an estimated **4,470 of additional FTE jobs** supported in 2030 related to opex (**86% of the 2030 total**). This is driven by the day-to-day operational activities involved in providing UFSM (e.g. *school meal serving and catering, procurement etc*). The vast majority of the 2030 employment impact is generated by the **Food and Beverage industry**, which could see **2,650 additional FTE jobs** supported in London, which is **c.51%** of the 2030 employment impact.

# ...This trend is similar for England with a high capital investment seen in the first two years of UFSM roll-out

Figure 16: Incremental GVA contribution by the spending phase in England (2024-2030)

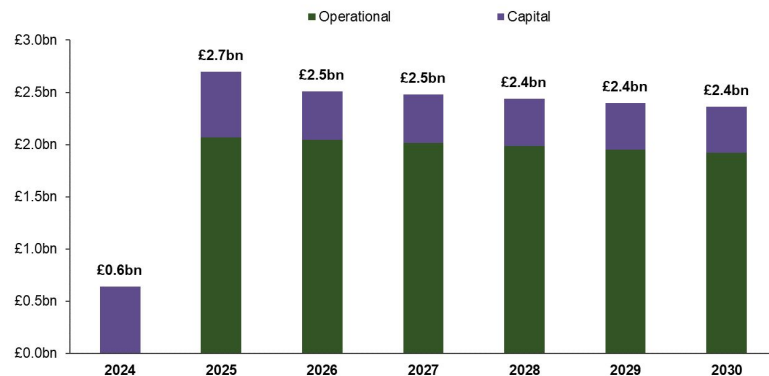
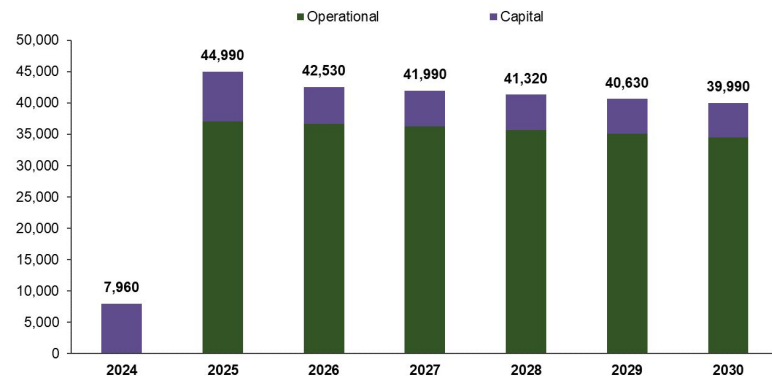


Figure 17: Incremental Employment contribution by spending type in England (2024-2030)



## Key Insights:

- Capex GVA** - In 2024, the GVA impact of **£0.6bn** is attributed by the initial high capital injection required (e.g. building development and purchase of machinery) to expand FSM provision to all state-funded primary and secondary school students in England. Similar to the London analysis, beyond 2025 Capex related GVA impact remains relatively constant thereafter at **£0.5bn**.
- Opex GVA** - Over the 2025-2030 period, the GVA impact from opex in providing UFSM in England outweighs capex, contributing on average **c.81%** of the total GVA impact. Like London, the majority of the GVA impact is from the **Food and Beverage industry**, which contributes **£0.6bn** to England's economy, representing **24%** of the 2030 GVA impact.



## Key Insights:

- Capex related employment** - There is an estimated **7,960 additional FTE jobs** supported in 2024 related to capex. These are largely generated by the **construction (c.40% of the 2024 total)** and **manufacturing industries (c.20% of the 2024 total)**. Similar to the London analysis, the slight drop in employment between 2025-2026 is contributed by the fall in construction and manufacturing related activities required to provide FSMs and the associated reduction in capex over time.
- Opex related employment** - There is an estimated **34,510 additional FTE jobs** supported in 2030 related to FSM opex (**c.86% of the 2030 total**). These are largely driven by the day-to-day operational activities involved in providing UFSM. Similarly, the vast majority of the 2030 employment impact relates to the **Food and Beverage industry**, which could support **16,860 additional FTE jobs** in England, representing **42%** of the total 2030 employment impact.



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