

LONDON
SCHOOL of
HYGIENE
& TROPICAL
MEDICINE



Research
Consortium for
SHN



WORKING PAPER

School Food Case Study: Scotland

Prepared by the Research Consortium for School Health and Nutrition, an initiative of the School Meals Coalition

Submitted by:

Professor Mary Brennan, University of Edinburgh Business School

Jayne Jones, Senior Manager, Commercial Services, Argyll and Bute Council

Professor John H. McKendrick, Glasgow Caledonian University

November 2022



Table of Contents

Country Profile	3
Population and economics.....	3
Education.....	3
Food security, nutrition and health.....	4
Stunting.....	4
Obesity.....	4
Micronutrient deficiency.....	4
Food insecurity.....	5
Design and implementation of school feeding programmes	5
Programme objectives	5
Targeting and coverage	8
Meal type	10
Nutritional norms	10
Food procurement.....	11
Legal framework and policy evaluation.....	12
Costs and budgeting	14
Monitoring and evaluation	15
Lessons learned and best practices	16
Challenges	17
Related resources	17
Contacts	19

Country Profile

Population and economics

Table 1

Total population	Proportion of population aged 5-19	Proportion of population employed in agriculture sector	Gross Domestic Product (GDP) per capita
5,479,900 ¹	16.1% ²	2.5% (69,475) ³	\$39,569 USD ⁴

Education

Scotland has an independent and publicly funded state school sector. Most children in Scotland attend publicly funded State Schools, which are free to access. One source of confusion is that schools in the independent (privately funded) sector are sometimes referred to as 'public schools' and/or 'private schools'. In the publicly funded state school sector, children are entitled to two years of nursery education (aged 3/4 and 4/5), with some children from disadvantaged backgrounds also entitled to an additional year of nursery education (aged 2). Children attend primary school for seven years (aged 5/6 to 11/12). Children are only required by law to attend secondary school until 16 but can attend secondary school for up to six years (aged 12/13 - 17/18). According to Skills Development Scotland, 73.1% of Scottish 16-19 yr. olds are currently in education.⁵ There are also 'special schools', which attend to the needs of some of the pupils with additional learning needs.

In the publicly funded state school sector, there are 2001 primary schools, 357 secondary schools, and 111 special schools.⁶

¹ <https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/population/population-estimates/mid-year-population-estimates/mid-2021>

² Calculated from table 1, downloaded from Charts in <https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/population/population-estimates/mid-year-population-estimates/mid-2021>

³ <https://www.gov.scot/publications/agriculture-facts-figures-2019/pages/2/>

⁴ Estimated for 2021, with the inclusion of oil and gas extraction in Scottish waters. Conversion from £32,974. <https://www.gov.scot/publications/gdp-quarterly-national-accounts-2022-q1/>

⁵ <https://www.skillsdevelopmentscotland.co.uk/media/49489/annual-participation-measure-2022-report.pdf>

⁶ Table 1.1 in Pupil census of 2021. <https://www.gov.scot/publications/pupil-census-supplementary-statistics/>

There are 108,160 of nursery school age (3-4), 416,545 children of primary school age (5-11) and 352,999 of secondary school age (12-17).⁷

According to the Pupil Census of 2021 (for publicly funded schools), there are 390,313 pupils attending primary schools, 306,811 pupils attending secondary schools and 7,599 pupils attending Special Schools.⁸ 8,322 pupils were temporarily excluded from publicly funded state schools in 2020/21, with most of these exclusions being for a single day or two days.⁹ On a typical school day, 8.6% of primary school pupils, 16.8% of secondary school pupils, and 13.5% of special pupils are absent from school (an average of 11.8% of pupils).¹⁰

Food security, nutrition and health

➤ Stunting

No Scotland-specific data available.

➤ Obesity

- 30% of children in Scotland are estimated to be overweight (14%), obese (7%), or morbidly obese (9%).¹¹ Morbid obesity is higher among older children (13% of 12-15 year olds)¹².
- There is a correlation between obesity and deprivation, with the highest levels of obesity found in the most deprived areas (14% morbidly obese in 20% Most Deprived areas (SMID 20))¹³ and among children with long-term limiting illness (46% of whom are at least overweight, with 18% morbidly obese).¹⁴

➤ Micronutrient deficiency

No Scotland-specific data available.

⁷ Calculated from Table 1, downloaded from charts in <https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/population/population-estimates/mid-year-population-estimates/mid-2021>

⁸ Table 1.1 in Pupil census of 2021. <https://www.gov.scot/publications/pupil-census-supplementary-statistics/>

⁹ Table 1.1 and Table 1.6 in 2020-21 tables. <https://www.gov.scot/publications/school-exclusion-statistics/>

¹⁰ Table 1.1 in 2020-21 tables. <https://www.gov.scot/publications/school-attendance-and-absence-statistics/>

¹¹ Table 745 of Sheet 13 (BMI) the 2019 Scottish Health Survey, supplementary tables:

<https://www.gov.scot/publications/scottish-health-survey-2019-supplementary-tables/>

¹² Table 745 of Sheet 13 (BMI) the 2019 Scottish Health Survey, supplementary tables:

<https://www.gov.scot/publications/scottish-health-survey-2019-supplementary-tables/>

¹³ Table 747 of Sheet 13 (BMI) the 2019 Scottish Health Survey, supplementary tables:

<https://www.gov.scot/publications/scottish-health-survey-2019-supplementary-tables/>

¹⁴ Table 748 of Sheet 13 (BMI) the 2019 Scottish Health Survey, supplementary tables:

<https://www.gov.scot/publications/scottish-health-survey-2019-supplementary-tables/>

➤ Food insecurity

- An estimated 2.3 million UK children live in households that have experienced food insecurity in the past 6 months (12% of households with children). The situation is even worse in households with children who are entitled to Free School Meals with 41% reporting food insecurity in the past 6 months.¹⁵
- The most recent reliable Scottish Government estimate suggests that 240,000 children (24%) are living in relative income poverty in Scotland. Current Scottish Government projections suggest **17% of children will be living in relative poverty in 2023-24, approximately 170,000**, one percentage point below the statutory target of 18%,¹⁶

Design and implementation of school feeding programmes

The Scottish Government provides funding to all 32 Local Authorities in Scotland (and directly to one grant aided school) to enable the provision of a school meals programme for pupils entitled to a free school meal.

Free meals are provided to:

- All children aged 3 and 4 attending an early years setting and in receipt of 1140 hours of funded childcare.
- All children attending any early years setting, including child minders, are also provided with free milk and a free healthy snack each day
- All children attending a Primary school and a special school receive a free school meal on a universal basis for their first five years of schooling.
- Plans are underway to increase this provision to include the first seven years of schooling, with a delivery date to be confirmed.
- Children and young people attending Primary 6 and 7 or attending a Secondary school may be entitled to a free meal if their household is in receipt of specific benefits:

¹⁵ <https://foodfoundation.org.uk/press-release/food-foundation-release-new-report-showing-pandemic-effect-food-insecurity-remains>

¹⁶ <https://www.gov.scot/news/tackling-child-poverty-delivery-plan-2022-26/#:~:text=Relative%20child%20poverty%20in%20Scotland,the%20statutory%20target%20of%2018%25>

- Universal Credit (where your monthly earned income is not more than £660)
- Income Support
- income-based Job Seeker's Allowance
- income-based Employment and Support Allowance
- support under Part VI of the Immigration and Asylum Act 1999
- Child Tax Credit, but not Working Tax Credit, and your income is less than £17,005
- both Child Tax Credit and Working Tax Credit and have an income of up to £7,920
- Children entitled to a free school meal receive a cash or voucher payment to cover the cost of the meal during current holiday periods. In addition, the Scottish Government also funds a holiday activity and food programme for families most in need of support.

Children who are not entitled to a free meal in Primary 6, 7 or in Secondary school are able to purchase a meal at a low cost.

The Scottish Government has committed to delivering a programme of free, universal breakfasts to all pupils in Primary and Special Schools, as well as universal entitlement to food and activities during holiday periods. Work is underway to develop this policy during the current Government term.

Programme objectives

Scotland has a long history of providing balanced and nutritious food and drink in schools. It also has a tradition of delivering food education as an integral part of our national curriculum recognising that provision and education are equally important in supporting our children and young people as they grow into adulthood. Through our school meal service, we aim to provide our children and young people with an appropriate amount of energy and nutrients to support their growth and development at the same time as supporting those most in need through our universal and free school meals programmes.

Embedding food education within our national curriculum helps to ensure our children and young people are provided with the skills, knowledge and experience they need to take responsibility for their own health and wellbeing in the future recognising that food choices are influenced by a range of factors including habit setting, affordability, and availability.

The diagram below shows the key partners involved in food education and delivery in Scottish state schools. Partnership working enables us to develop policy and legislation in a more targeted way based on shared knowledge and experience. This in turn allows us to better meet the needs of our children and young people in an ever-changing world and, as we have demonstrated during the lockdowns of the Covid-19 pandemic, to rise to the more unusual and unexpected challenges we face.

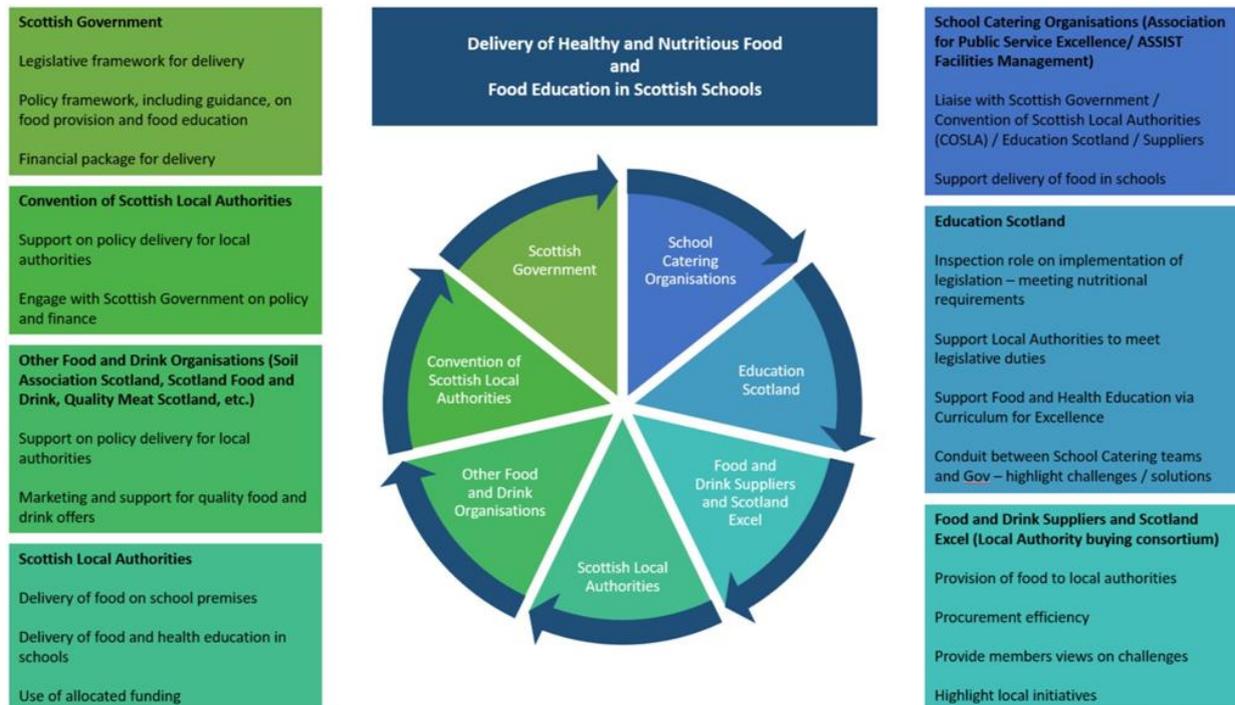


Figure 1

With the passing and implementation *Good Food Nation (Scotland) Act* in July 2022, there is an impetus to leverage school meals as a driver for food systems change, with each local authority having responsibility for developing and implementing its own approach to local food and producing a local Good Food Nation Plan. Eighteen out of the 32 Local Authorities in Scotland have the Soil Association *Food for Life Served Here* accreditation, indicating widespread commitment to sustainable, ethical food that is good for the planet, for people and for animal welfare.

Key Features of the Approach in Scotland

Critical features (Scotland could not achieve what it does without this):

- Legislative and policy framework provides sufficient flexibility to enable local authorities to meet the needs of their communities.

- Ability to establish practical monitoring systems of local delivery, which can be aggregated to gain a national understanding to inform policy action and development.
- Legislation sets out nutritional standards for food and drink along with an Inspection framework to monitor and support implementation.
- Policy developed in collaboration with the Scottish Government.
- Engagement with young people and parents (as customers).

Essential foundations (Scotland would not deliver as effectively without this):

- Legislation sets out who should receive free school meals through universal provision or income based eligibility criteria.
- Ability to respond to emergency situations quickly – either at national, authority, school, or individual child level
- Collaborate on promotional material and media messaging
- Regular data sharing to inform and support decision making/action, particularly during times of crisis.
- Awareness of political and financial boundaries facing all organisations.
- Legislative Framework, relationships and integrated approach has developed over past 15 years from the initial *Hungry for Success* Review
- Ability to share effective practice within schools or local authorities at a regional or national level.

Supportive actions (enhances Scotland's ability to deliver)

- Open and honest discussion is enabled and promoted to identify solutions to challenges and raise awareness of new practices.
- Network enables relationships to be maintained during staff turnover.
- Regular meetings, conferences and seminars bringing partners together.
- Sharing knowledge and experience with local, national, and international partners for example through International School Meals Day¹⁷ (approaching its 10th Year) – an initiative funded and led by Scotland and now involving over 30 countries promoting the value of school meals and sharing learning on a wide range of school food related issues

Targeting and coverage

¹⁷ Visit: <https://internationalschoolmealsday.com/>

The social geography of Scotland determines that entitlement to free school meals varies across the nation. In 2020, all pupils were entitled to a free school meal in the first three years of primary school. For primary school pupils in P4 to P7, 19.9% of pupils were registered for a free-school meal: however, this ranged from 7.8% in East Renfrewshire and the Shetland Isles to 46.8% of pupils in the city of Glasgow. For secondary schools, 15.6% of pupils are registered for a free-school meal: however, this ranges from 7.4% in Aberdeenshire to 28.6% in the city of Glasgow.¹⁸ For special schools, 74% of pupils are registered for a free-school meal: however, this ranges from 24% in Argyll and Bute to 100% in eight of Scotland's 32 local authorities.¹⁹

Entitlement to a free school meal does not describe uptake. Some pupils who are entitled to free school meals do not present for school meals, and some pupils who are not entitled to a free school meal pay for their school meal. In 2020, the proportion of pupils who typically presented for a meal (free or paid for) on a typical school day was 76% in Primary 1-3, 46% in Primary 4-7, 45% in Secondary schools and 77% in Special schools.²⁰

There is a complex geography of school meals.²¹ In special schools, more pupils take school meals in urban areas (for example, 77% of pupils in large urban areas, compared to 50% in accessible rural areas). In contrast, in secondary schools, more pupils take school meals in rural areas (for example, 35% in large urban areas, compared to 53% in remote rural areas). There is slight variation across most area types in primary schools, although more pupils present for school meals in remote rural areas (for example, 53%, compared to 43% in remote towns).

School meals are funded by Scottish Government and delivered by each of the 32 Local Authorities with the vast majority delivering the service via in house local authority managed catering services. There is significant legislative and regulatory compliance, though delivery models differ across the 32 Local Authorities to best suit the communities in which they are provided.

Scotland has a centralised approach, as far as Local Authorities are required and have responsibility for delivering school meal services for all state schools in their local authority area. There is local variation terms of menus and how they deliver the service.

¹⁸ Calculated from Table 13 in Scotland Healthy Living Survey 2020, supplementary statistics.

<https://www.gov.scot/publications/healthy-living-survey-schools-meals-and-pe-supplementary-data/>

¹⁹ Calculated from Table 19 in Scotland Healthy Living Survey 2020, supplementary statistics.

<https://www.gov.scot/publications/healthy-living-survey-schools-meals-and-pe-supplementary-data/>

²⁰ Table 3b in Scotland Healthy Living Survey 2020, supplementary statistics.

<https://www.gov.scot/publications/healthy-living-survey-schools-meals-and-pe-supplementary-data/>

²¹ Table 5 in Scotland Healthy Living Survey 2020, supplementary statistics.

<https://www.gov.scot/publications/healthy-living-survey-schools-meals-and-pe-supplementary-data/>

Meal type

In Early Years settings, children receive a two-course meal with no choice, as well as milk and a healthy snack. In Primary schools, children and young people receive a choice of two course meal at lunchtime, which may be a starter and a main course, or a main course and a dessert. In Secondary schools, most operate a breakfast, mid-morning, and lunch service where pupils have more choice about the food they choose, with a range of meals, snacks, and 'grab and go' options available.

There is a variety of preparation methods in place across Scotland, designed to best suit the area's school estate and logistics. Most schools currently have a production kitchen cooking meals onsite for their pupils from scratch. However, a growing number of schools have no onsite kitchen, with meals prepared in a nearby school or central production unit and then delivered to the school, either hot and ready to serve, or chilled or frozen for reheating and serving. Most schools, regardless of whether they are a production kitchen or a dining centre receiving meals, have some element of on-site preparation of fresh salad and fruit.

Nutritional norms

The meals provided must meet rigorous food and nutritional criteria: this is a statutory requirement as outlined in the [Healthy Eating in Schools Guidance 2020](#).²² These standards apply across the whole school day, and so any food provided in schools need to meet these requirements.

Table 2

	An average day's primary school lunch	An average day's secondary school analysed lunch and secondary hostel evening meal
Energy (calories/kilojoules)	518 kcals(+/- 78Kcals) 2165 kJ(+/- 325kJ)	745 kcals(+/-112kcals) 3114 kJ(+/-467kJ)
Total fat	Not more than 20.1 g	Not more than 29.0 g
Saturated fat	Not more than 6.3 g	Not more than 9.1 g
Total carbohydrate	Not less than 69.1 g	Not less than 99.3 g
Free Sugar³	Not more than 10.4 g	Not more than 14.9 g
Fibre (AOAC¹)	Not less than 6 g	Not less than 9 g
Protein	Not less than 19.4 g	Not less than 27.9 g
Iron	Not less than 3 mg	Not less than 4.4 mg

²² <https://www.gov.scot/publications/healthy-eating-schools-guidance-2020/>

Calcium	Not less than 165 mg	Not less than 300 mg
Vitamin A	Not less than 150 µg	Not less than 187 µg
Vitamin C	Not less than 9 mg	Not less than 11 mg
Folate	Not less than 45 µg	Not less than 60 µg
Sodium²	Not more than 686 mg	Not more than 824 mg
Zinc	Not less than 2.1 mg	Not less than 2.8 mg

Each local authority has responsibility for designing a compliant menu that best suits the needs and tastes of children and young people in their local authority area. This allows for local, seasonal meals to be provided. Most employ a nutritionist to carry out this work, and to ensure compliance with the legislation. Many carry out consultation with children and young people in their schools and will run activities such as tasting sessions and pilots to test out menus and recipes. They will also consult with catering staff, to ensure that the meals are deliverable in all kitchen environments. Not only do the recipes and menus need to meet legislative, practical and local requirements, they also need to be fully costed to ensure that they can be provided within the budgetary envelope provided by the funding.

In 2022, ASSIST FM produced a Scottish School Meals recipe book with a bank of compliant dishes, tested by caterers and pupils across Scotland. This recipe pack can help local authorities to meet the requirements of the legislation and has been sent to every school kitchen in Scotland.

Food procurement

There is a mixed food procurement model in Scotland, comprising:

- National contracts for some food items/categories with tendering and contractual process administered by Scotland Excel (Centre for Procurement Expertise, Scotland)
- Regional contracts for some food items/categories,
- Small local contracts in some local authorities (especially for fresh produce).

This mixed model enables flexibility while ensuring supply chain continuity: large framework contracts are supplemented with smaller, local purchasing in some Local Authorities which enables SMEs and micro businesses to provide local food for local schools. For example, in Argyll and Bute, local butcher meat is procured on the Isle of Islay using a local contract, whereas elsewhere, butcher meat is procured via a Scotland Excel framework contract. In 2019/20, £77.37million was spent on food by Local

Authorities in Scotland, with approximately 52.5% of that spend going to Scottish suppliers.

A connection with family farmers and local produce is promoted to an extent. Connection is primarily through the Soil Association Food for Life Programme and work done by Scotland Excel and/or Local Authorities to develop smaller lots especially for meat and dairy to encourage smaller farmers/butchers to get involved and increase the percentage of local food procured (where local can be defined as from the local authority, defined surrounding region, and/or Scotland). This work is further supported by industry partners such as Quality Meat Scotland (QMS) and the National Farmers Union of Scotland (NFUS).

Legal framework and policy evaluation

Table 3

Year	Initiatives/ Key Developments
2000	Introduction of the <i>Education (Nutritional Standards for School Lunches) (England) Regulations 2000</i>
2002	Implementation of <i>The Education Act 2000</i> (England and Wales), which amended the free school lunch eligibility criteria, increasing the number of children eligible to receive free school meals.
2003	Introduction of <i>Hungry for Success (February 19, 2003)</i>
2004	Publication of <i>Healthy Living Blueprint for Schools</i> (Department for Education and Skills, 2004).
2005	<ul style="list-style-type: none"> ▪ Publication of <i>Eating Well at School: Nutritional and Practical Guidelines</i> (Crawley, 2005). ▪ Publication of <i>Turning the Tables: Transforming School Food. A Report on the Development and Implementation of Nutritional Standards for School Lunches</i> (School Meals Review Panel, 2005) ▪ <i>Jamie's School Dinners</i>, a four-part documentary series airs on Channel 4. ▪ UK Government establishes the School Food Trust, a non-departmental public body to assist schools to improve school meals ▪ Launch of Food in Schools Programme (Department of Health and the Department for Education and Skills, UK)
2007	<ul style="list-style-type: none"> ▪ Trial in five local authorities (East Ayrshire, Fife, Glasgow, Scottish Borders, and West Dunbartonshire) in 2007/08 for the provision of free school meals to all pupils in P1-3. ▪ Introduction of <i>Schools (Health Promotion and Nutrition) (Scotland) Act 2007 – April 19th</i>
2008	<ul style="list-style-type: none"> ▪ Publication of the independent <i>Evaluation of the Free School Meals Trial for P1-3 pupils</i> (MacLardie et al., 2008) ▪ Introduction of <i>The Nutritional Requirements for Food and Drink in Schools (Scotland) Regulations 2008 – June 26th</i>.

	<ul style="list-style-type: none"> Publication of <i>Healthy Eating in Schools. A guide to implementing the nutritional requirements for food and drink in schools (Scotland) regulations 2008</i> (Scottish Government, 2008).
2009	Extension of national entitlement criteria for free school meals to include pupils whose parents or carers are in receipt of both maximum Child Tax Credit and maximum Working Tax Credit and their income is under £6,420 (from August)
2010	Introduction of local schemes in several local authorities to extend provision of free school meals in the early years of primary school (P1-3).
2011	Introduction of <i>Catering for Change</i> , sustainable procurement guidance for public sector food in Scotland
2012	Introduction of the Scottish Government's Healthy Living Survey, which incorporated the old School Meals Survey.
2013	<ul style="list-style-type: none"> Extension of national entitlement criteria for free school meals to include pupils whose parents or carers receive Child Tax Credit, do not receive Working Tax Credit and had an annual income (as assessed by the Inland Revenue) of below £16,105 (from April) Publication of <i>The School Food Plan</i> (Dimpleby and Vincent, 2013) Dept of Education, UK
2014	<ul style="list-style-type: none"> Introduction of <i>Better Eating Better Learning</i> Introduction of the <i>Cost of the School Day</i> project in the City of Glasgow Passing of the Children and Young People (Scotland) Act 2014, Law - 27th March 2019; placed statutory obligation on local authorities to provide free school meals to pupils in P1-P3.
2015	<ul style="list-style-type: none"> Introduction of universal provision of Free School Meals to all pupils in P1-3 (from January) Publication of <i>The Cost of the School Day</i> evaluation report (Spencer, 2015)
2017	<ul style="list-style-type: none"> Extension of national entitlement criteria for free school meals to include pupils whose parents or carers are in receipt of Universal Credit and their monthly earned income does not exceed £610 (from August) Scottish Government work with local authorities to explore the use of local initiatives to extend provision of free school meals (2017 and 2018)
2018	<ul style="list-style-type: none"> Introduction of Club 365 project in North Lanarkshire. Extension of free school meals to all Primary 4 pupils in Glasgow Commitment to extend the <i>Cost of the School Day</i> project as part of the Scottish Government's <i>Tackling Child Poverty Delivery Plan, 2018-2022</i>.
2019	Commitment to extend free school meal provision to all primary school pupils in Glasgow by 2022.
2020	<ul style="list-style-type: none"> The Nutritional Requirements for Food and Drink in Schools (Scotland) Regulations 2020 and Healthy eating in schools: guidance 2020 Introduction of holiday provision in place of a free meal during holiday periods Introduction of a funded holiday food and activities for specific groups of pupils
2021	<ul style="list-style-type: none"> Introduction of universal free school meals for all pupils in Primary 4 from August 2021 Introduction of a free meal to early year's children in receipt of 1140 hours of free funded childcare from August 2021

	<ul style="list-style-type: none"> Introduction of free milk and a healthy snack for all early year's children regardless of which setting they are attending, from August 2021
2022	<ul style="list-style-type: none"> Introduction of universal free school meals for all pupils in Primary 5 from January 2022 The Good Food Nation (Scotland) Act introduced into Scots Law on 26th July 2022 and due to commence in Spring 2023. National Food Plan and new Scottish Food Commission expected in autumn/winter 2024 with a strong focus on public food (including school food)

Costs, benefits and budgeting

Table 4

Average cost of a meal (USD)	Current funding for universal provision is based on \$3.96 per meal for 2022/23. The price of a school meal varies by Local Authority, ranging from \$2.26 to \$3.75
Cost of raw material (%)	Est. Average 30%
Cost of labour (%)	Est. Average 55%
Gross allocated budget per child and per meal (USD)	£3.33
Number of teaching days per year in one academic year	190
Number of school feeding days in one academic year	190

Funding for school meals provision is provided by the Scottish Government, and allocated to each Local Authority on an annual basis. This is part of the overall block grant allocation, and the funding is not ring fenced, which means that each Local Authority is able to decide for themselves whether to allocate the full amount provided for meals to the direct delivery of the service, whether to supplement this and provide additional funding, or whether not to provide the full amount allocated for school meals.

In some local authorities, the grant allocation is insufficient to ensure equitable provision and so the service is locally subsidised from elsewhere in the block grant funding.

Investment in school meals is understood primarily as a means of tackling poverty, by ensuring that children living in poverty are fed during the school day. However, school food is also understood to contribute to wider agendas:

- Helping address health inequalities
- Helping to meet the Scottish dietary goals for children

- Supporting attendance at school, and assisting with closing the poverty related attainment gap
- Supporting local purchasing, creating economic sustainability and community wealth building
- Offsetting the impact of climate change and addressing food waste
- Supporting the aim of creating a more just, equitable and sustainable society in Scotland

Monitoring and evaluation

Results achieved through the implementation of programmes so far:

- Increased uptake of school meals
- Financial benefits for parents (worth £400/child/year)
- Nutritional benefits for children
- Improved lunchtime experience for some schools²³

In 2022, the Scottish Poverty and Inequality Research Unit canvassed opinions on school meals with over 15,000 secondary school pupils²⁴. It identified four things that were working well, and nine things that could be improved. Eight actions were identified.

In Scotland, school food and food education are monitored by Education Scotland, which is the national body for supporting quality and improvement in learning and teaching. Education Scotland has a team of three Health Promotion and Nutrition Inspectors who carry out onsite visits to schools as part of the wider school inspection programme. In addition to this, Education Scotland also has a [self-evaluation framework](#) in place for every school, which enables each school in Scotland to formally self-reflect and include school food in their self-evaluation and improvement plans.

There is no formal evaluation programme in place to measure the impact of, and improvements in (if any) learning, social, nutritional and health outcomes because of the school meal programme in Scotland.

²³ [Evaluation of the implementation of universal free school meals \(healthscotland.scot\)](https://www.healthscotland.scot/)

²⁴ <https://www.queenssport.com/sites/media/Media,1323673,smxx.pdf>

Lessons learned and best practices

- Cross-sectoral collaboration is essential to delivering good food outcomes for children and young people.
- Centring the experiences of children and young people.
- Importance of developing school food service standards to maximise intake, minimise waste and improve overall canteen experience.
- Supporting, developing, and nurturing catering staff is vital.
- Food and drink sourcing is important.
- A systemic approach to food system change is possible and emerging.

The EU H2020 Strength 2 Food Project delivered comprehensive recommendations articulating the clear need for a systems based approach to reducing plate waste (and associated nutritive, financial and carbon losses), optimising the nutritive intake of primary school children and explicitly acknowledging the role and influence of multiple factors and stakeholders, in daily school meal services. The recommendations cover 4 broad categories: National and local policies and practices; staffing – resourcing, roles, training, and skills; school-based policies and initiatives and canteen environment, layout and food service standards and delivery.²⁵

The following conditions (institutional, economic, social and environmental) are needed for the successful implementation of school meal programs:

1. **Coherent policy and compatible legislation** that recognises interconnections, and interdependences of school food with other legislation linked to agriculture, food and drink, public procurement, education, planning, public health, and net zero/environment/climate change. The *Good Food Nation (Scotland) Act* is a major step in this direction. Vital that national and local government embrace a food systems approach and recognise how multiple beneficial outcomes (environmental; public health and nutrition, social and economic) can be delivered through more careful, thoughtful, and creative school meal programmes.

²⁵ The EU H2020 Strength 2 Food Project made recommendations articulating the clear need for a systems based approach to reducing plate waste (and associated nutritive, financial and carbon losses), optimising the nutritive intake of primary school children and explicitly acknowledging the role and influence of multiple factors and stakeholders, in daily school meal services. The recommendations cover 4 broad categories: National and local policies and practices; staffing – resourcing, roles, training and skills; school based policies and initiatives and canteen environment, layout and food service standards and delivery.

[HTTPS://WWW.STRENGTH2FOOD.EU/2019/02/28/EVALUATION-OF-THE-NUTRITIONAL-IMPACT-OF-DIFFERENT-MODELS-OF-PSFP-IN-A-SCHOOL-CONTEXT/](https://www.strength2food.eu/2019/02/28/evaluation-of-the-nutritional-impact-of-different-models-of-psfp-in-a-school-context/)

2. **Adequate, appropriate, reliable, and ring-fenced resourcing** (that responds to the changing costs in service delivery) to ensure consistent, high quality school food provision across all 32 local authorities in Scotland.
3. **Capital investment in the school kitchen and canteen estate** and equipment to improve school meal service (kitchen and canteen) delivery, enhance the quality and size of space available (especially in schools offering universal provision) and reduce environmental footprint (i.e., energy costs).
4. **Incentivises and rewards innovative local/regional/national partnerships** to increase local growing and supply of key school food ingredients including fruit and vegetables, milk, and meat.

Development of a formal evaluation programme to assess the impact of the school meal programme in Scotland with respect to desired outcomes – educational, public health and nutrition, environmental, social, and economic.

Challenges

- Rising cost of ingredients and spiralling inflation
- Rising cost of energy
- Reduced uptake post COVID-19
- Static funding from central government; Reduction in real time budgets due to rising costs and overall constraints on wider local government resources
- Staffing challenges post Brexit and COVID-19
- Supply chain problems post Brexit and COVID-19

Related resources

- McKendrick, J.H. et al. (2019) *Are Pupils Being Served? A secondary review of the sector's evidence base on school meal provision at lunchtime in Scotland. A Report for Assist FM*. Glasgow: SPIRU (Scottish Poverty and Inequality Research Unit). https://www.gcu.ac.uk/_data/assets/pdf_file/0016/33109/spiru20report20for20assist20fm20190826.pdf
- McKendrick, J.H. and Cathcart, S. (2021) *Tackling Food Insecurity in Scottish Schools. Case Studies of Strengthening Free School Meal Provision in Scotland. Report for the Poverty and Inequality Commission*. Glasgow: SPIRU.

<https://povertyinequality.scot/wp-content/uploads/2021/03/SPIRU-Report-Free-School-Meals.pdf>

- McKendrick, J.H. et al. (2022) *Fuelled in School. Secondary School Pupils in Scotland's Opinion on School Meals. A Report for ASSIST FM*. Glasgow: SPIRU.
- Tregear, A., Aničić, Z., Arfini, F., Biasini, B., Bituh, M., Bojović, R., Brečić, R., Brennan, M., Barić, I.C., Del Rio, D. and Donati, M., 2022. Routes to sustainability in public food procurement: An investigation of different models in primary school catering. *Journal of Cleaner Production*, 338, p.130604.
- Mary Brennan, Angela Tregear, Maysara Sayed (UNED); Ružica Brečić, Irena Colić Barić, Andrea Lučić, Martina Bituh, Ana Ilić, Dubravka Sinčić Ćorić (ZAG); Efthimia Tsakiridou, Konstadinos Mattas, Christos Karelakis, Alexandros Gkatsikos, Ioannis Papadopoulos (AUTH); Filippo Arfini, Beatrice Biasani, Daniele Del Rio, Michele Donati, Francesca Giopp, Gianluca Lanza, Alice Rosi, Francesca Scazzina (UNIPR); Jelena Filipovic, Zorica Anicic (BEL) Steve Quarrie (EUTA). (2019) Deliverable No: D6.2 <https://www.strength2food.eu/2019/02/28/evaluation-of-the-nutritional-impact-of-different-models-of-psfp-in-a-school-context/>
- [Evaluation of the implementation of universal free school meals \(healthscotland.scot\)](https://www.healthscotland.scot/)
- [A summary of Food Education resources | Learning resources | National Improvement Hub](#)
- [Food in Schools across Scotland – Education Scotland – Supporting improvement – a self-evaluation framework \(glowscotland.org.uk\)](https://www.glowscotland.org.uk/)

Links to legislative and policy documents

- [Education \(Scotland\) Act 1980 \(legislation.gov.uk\)](https://www.legislation.gov.uk/ukpga/1980/122/section/53) – section 53 underpins legislation relating to provision of school food including free school meal eligibility criteria.
- [School meals - mygov.scot](https://www.mygov.scot/) - Sets out the eligibility criteria for free school meals.
- [Schools \(Health Promotion and Nutrition\) \(Scotland\) Act 2007 \(legislation.gov.uk\)](https://www.legislation.gov.uk/ukpga/2007/12/section/1) – sets out statutory duties in relation to schools being 'health promoting'.
- [The Nutritional Requirements for Food and Drink in Schools \(Scotland\) Regulations 2020 \(legislation.gov.uk\)](https://www.legislation.gov.uk/ukreg/2020/120/section/1) – sets out statutory requirements that all food and drink served in schools must meet.
- [Healthy eating in schools: guidance 2020 - gov.scot \(www.gov.scot\)](https://www.gov.scot/publications/guidance/2020/120/section/1) – Guidance to support implementation of the Nutritional Requirements for food and drink in schools (Scotland) Regulations 2020.
- [What is Curriculum for Excellence? | Curriculum for Excellence | Policy drivers | Policy for Scottish education | Scottish education system | Education Scotland](#) – Scotland's national school curriculum. Details the experiences and outcomes that



all children and young people should have as part of their school education.
Further detail on food and health can be found under Health and Wellbeing.

Contacts

Professor Mary Brennan

University of Edinburgh Business School

Mary.Brennan@ed.ac.uk

Jayne Jones

Senior Manager, Commercial Services, Argyll and Bute Council

Jayne.Jones@argyll-bute.gov.uk

Professor John H. McKendrick

Glasgow Caledonian University

J.McKendrick@gcu.ac.uk