Information sheet

Surplus food redistribution in the UK; 2015 to 2017

Introduction

To meet the Courtauld Commitment 2025 (C2025) food waste target and UN Sustainable Development Goal (SDG) 12.3, collaborative and concerted efforts to reduce food[1] waste are required. These need to focus on preventing food surplus and waste being generated in the first place, redistributing more surplus food that does arise, and diverting more surplus (that cannot be used to feed people) into animal feed.

Tackling food waste is a key priority for the food sector, governments and individuals. Preventing food waste at source should always come first, but surpluses can arise for a number of reasons; for example, food incorrectly labelled, over-ordered, over-supplied or obsolete seasonal stock. WRAP is working with retailers and manufacturers, logistics and redistribution organisations, together with industry bodies, to identify ways of increasing the beneficial use of surplus food.

A C2025 Surplus Food Redistribution Working Group was established in 2016, and is seeking to address the challenge of increasing the amounts of food surplus redistributed. They are doing this in a number of ways, through:

- developing strategies for long term, high impact solutions;
- sharing best practice;
- identifying barriers and opportunities; and
- overseeing the development of relevant new resources and research and approaches to monitoring progress.

WRAP research identified the potential to increase the amount of food redistributed from manufacturers and retailers by around 220,000 tonnes compared to the levels being redistributed in 2015. There will be additional potential from other parts of the supply chain, including primary production and hospitality and food service (HaFS). C2025 signatories have committed to doubling the amounts of food they redistribute by 2020[2].

A methodology for estimating the amount of food surplus being redistributed in the UK was developed with the Surplus Food Redistribution Working Group, and this report provides an assessment of UK-wide surplus food redistribution for 2015, 2016 and 2017.

[1] *Within this report 'food' is used as shorthand for 'food and drink', and 'food waste' for 'food and drink waste'*

[2] *Details can be found on the C2025 Food Redistribution webpages here*

Method

Data were collected by a survey distributed to a list of major organisations whose primary business is redistribution of surplus food. The aim was to quantify the amount of surplus food redistributed to these organisations. Organisations were subdivided into two categories:

- Commercial redistribution – businesses that primarily redistribute surplus food for profit.
- Charitable and social redistribution[3] – organisations (including charities and social enterprises) that primarily redistribute food in order to fulfil social or environmental objectives and that do not make a profit on this.

They represent the largest food redistribution organisations in the country, are expected to account for the majority of redistribution of surplus food, and are therefore well suited to tracking changes in redistribution. They are not, however, exhaustive – the survey excludes smaller, local organisations that may receive surplus food directly from food businesses. As the total size of the redistribution sector is unknown no attempt has been made to scale up the estimate; however, the data are broadly comparable with the confidential returns on redistribution from Courtauld 2025 signatory organisations for 2015 and 2016 (2017 data will be available in late 2018). For these reasons, the results in this report are likely to slightly underestimate total UK redistribution.

The data explicitly exclude all donations of food that is not surplus. Donations of regular product as part of a company's Corporate Social Responsibility activities, for example, are outside the scope of this report[4].

It should be noted that the 2015 estimate for redistribution has changed from the figure of 47,000 tonnes published in WRAP (2016) *Quantification of food surplus, waste and related materials in the grocery supply chain,* to around 28,500 tonnes. The restating of the 2015 estimate for overall UK redistribution has resulted from a combination of improvements to the granularity of data from redistribution organisations and also the research methodology, compared to the estimates previously available[5]. The impact of restating the 2015 estimate on related figures is discussed in the Annex. This fully restated value provides an accurate baseline to assess progress against.

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[3] *Referred to collectively as 'charitable' in the rest of this report*

[4] *Redistribution is the process whereby food that would otherwise have ended up as waste is instead provided for people to eat. This excludes food donated by companies that was not at risk of ending up as waste (i.e. given to charities as part of wider Corporate Social Responsibility objectives) or purchased by customers and added to front of store donation boxes. Food redistribution may take place through formal programs or informal efforts (that may also be referred to as food rescue, recovery, or donation), and received by both charitable organisations (such as FareShare, Food Cycle) and commercial ones (such as Company Shop, Approved Foods). Redistribution may take place at any point along the food supply chain, such as at the farm (e.g., field gleaning), the food processing facility, or the food outlet (e.g., supermarket, restaurant). See* *http://www.wrap.org.uk/content/food-waste-measurement-principles-and-resources-guide*

[5] *The restatement has reduced the original estimated tonnage re-distributed in 2015 by 40%, with circa 70% of the tonnage difference resulting from the removal of data on non-food products (for example home and personal care) from the estimate of surplus redistributed by one of the redistribution organisations.*

Results

Table 1 below shows the number of responses achieved in each year. To date, all surveys have achieved the same number of responses, with eight responses from the charitable redistribution sector and two from commercial food surplus redistributors. The respondents were identical in 2015 and 2016, while in 2017 one charitable respondent dropped out and another organisation submitted a response for the first time. These organisations were of comparable size (each accounting for less than 0.5% of the total reported tonnage), and so the results have not required any scaling or correction.

Table 1: Number of responses by year and type of organisation

	2015	2016	2017
Charitable	8	8	8
Commercial	2	2	2
Total	10	10	10

The total redistribution numbers reported are shown in Table 2 and Figure 1.

Table 2: Tonnes of surplus redistributed by type of organisation and year, 2015-2017

	2015	2016	2017	% change 2015 to 2017
Charitable	11,655	18,371	20,935	80%
Commercial	16,900	18,380	22,099	31%
Total	28,555	36,751	43,034	51%

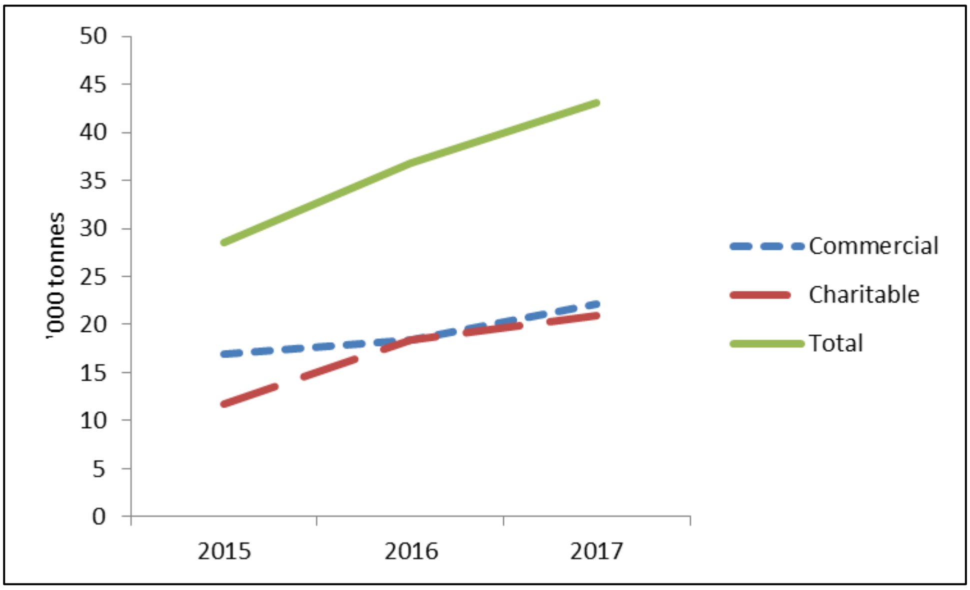
Charitable redistribution has increased by around 9,300 tonnes over the two-year period, compared to an increase of around 5,200 tonnes via the commercial sector. The combined increase (14,500 tonnes) represents the equivalent of around 35 million meals a year, bringing the 2017 total to the equivalent of 102 million meals[6]. Surplus redistributed via charitable routes made up almost 50% in 2017 (49%), compared to just over 40% in 2015 (41%).

The value of the food redistributed in 2017 was almost £130 million, with the increase from 2015 to 2017 worth over £40 million[7].

[6] *Based on the assumption of an average meal weighing 420g (based on the average of a range of typical meal weights, using data derived from Food Portion Sizes, FSA 2008). This does not imply that this many balanced meals could be made from the food surplus, but illustrates what the amount of food surplus might equate to.*

[7] *The value of food surplus redistributed has been estimated using data from the Defra Family Food Survey, on the price paid by consumers for different food items (as described in Household Food Waste in the UK, 2015). It therefore reflects the potential retail cost of purchasing the food redistributed.*

Figure 1: Tonnes of surplus redistributed by type of organisation and year



Redistribution has grown in both years from the baseline, with commercial redistribution reporting 30% growth and charitable redistribution reporting 80% growth since 2015. While redistribution of surplus is inherently variable, and some of these observed increases could be due to improved reporting, the results, combined with anecdotal evidence and increased interest in and activity on redistribution among C2025 signatories and other businesses, suggest that redistribution of surplus food is increasing rapidly.

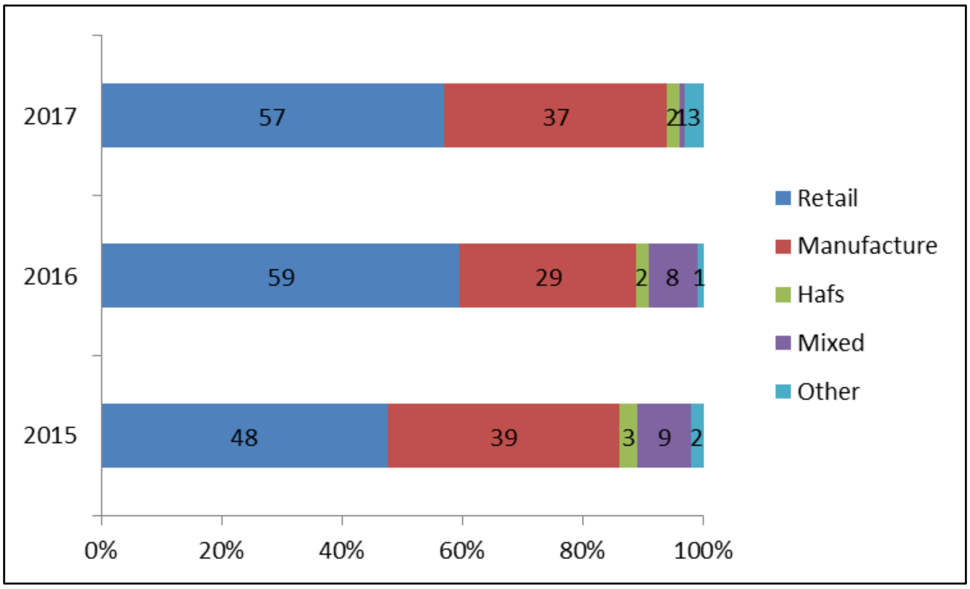
Table 3 shows the tonnage of food diverted to charitable and commercial redistribution by food sector in 2017, and the percentage breakdown of this. The data for the first two years of the time series are incomplete, as some major redistributors were unable to provide a split by sector supplying the food. The results for 2017 show that the manufacturing sector is the largest single source of redistributed surplus food, followed by retail.

Table 3: Redistribution of surplus food by source, 2017 (tonnes and % of the total tonnage provided)

Source	2017 tonnage	% of the total tonnage provided
Retail	17,481	41%
Manufacturing	23,070	54%
HaFS	1,125	3%
Other / mixed	1,358	3%
Total	43,034	100%

The incompleteness of the data means it is not possible to look at changes in the source of surplus food across all respondents. It is, however, possible to do this for the charitable redistribution organisations, as these have been able to provide a more complete record over the three year period. This relative weight of surplus from each of the supply chain sectors is shown in Figure 2.

Figure 2: Breakdown of supply chain source for charitable redistribution only (%)



The breakdown of redistribution via the charitable sector is shown in Table 4.

Table 4: Redistribution to charitable organisations by supply chain source, 2015-2017 (tonnes)

Source	2015	2016	2017	Change 2015 -2017
Retail	5,583	10,907	11,931	114%
Manufacture	4,539	5,249	7,745	71%
HaFS	330	432	491	49%
Combined[8]	1,000	1,530	109	-89%
Other[8]	202	253	659	226%
Total	11,655	18,371	20,935	80%

Retail is the largest supplier to the charitable redistribution sector, supplying 50-60% of the total surplus, with the manufacturing sector supplying 30-40%. The hospitality sector supplies around 3%. This is likely to be an underestimate, as food surplus from this sector often needs to be redistributed and consumed more quickly and this could lead HaFS businesses to make more use of smaller, local organisations[9]. However, evidence from WRAP voluntary agreement reporting (C2025 and the Hospitality and Food Service

[8] *Combined refers to cases where a redistribution organisation has been unable to determine or disaggregate the sector from which the food was sourced, but where this was retail, manufacture or HaFS. Other refers to surplus food from sources that are not unambiguously in one of these sectors (e.g. logistics, wholesale market etc). Overall levels of 'combined' and 'other' have fallen as the quality of the data has improved over time.*

[9] *In the final report of the Hospitality and Food Service Agreement, signatories reported redistributing 780 tonnes in 2015*

Agreement) suggests that redistribution is likely to be lower than for retail or manufacture (at least in part because of the challenges associated with prepared food).

The supply of surplus food from the retail sector to charities has more than doubled (114% increase; the equivalent of an additional 15 million meals), and that from manufacture increased by 71% (the equivalent of more than an additional 7 million meals).

Conclusions

The data suggest that redistribution has increased significantly since 2015, with both the charitable and commercial redistribution sectors reporting growth. There have also been increases in the supply of surplus food to the charitable sector from all of the three food business sectors where data is available (retail, manufacture and HaFS). There is the potential for further significant increases, of at least another 205,000 tonnes, in particular from retail and manufacture (see Annex for more details). WRAP will continue to work with Governments, food businesses and the redistribution sector to both facilitate and track progress.

Annex – Re-stating the 2015 estimate for UK redistribution

As stated above, the 2015 estimate for redistribution has been revised from the figure of 47,000 tonnes published in WRAP (2016) *Quantification of food surplus, waste and related materials in the grocery supply chain* to around 28,500 tonnes. The difference results from a combination of improvements to the granularity of data from redistribution organisations and also to the research methodology[10]. The updated figures rectify this issue.

This revision does not affect the estimates made in the 2016 report for the potential additional UK redistribution that could be achieved from the retail and manufacturing sectors, but a number of other statements do need updating.

The impact on key statements is shown in Table 5 below.

To be clear, the estimate for the potential **additional** tonnes of food waste that could be prevented through increased redistribution (the 220,000 tonnes) have not been affected by the changes to the estimate for redistribution in 2015 – this was derived from an analysis of the food surplus going to animal feed and food waste being treated / disposed of which could be suitable for redistribution[11], which is unaffected by the change in the 2015 estimate for what was actually being redistributed. There is therefore no impact on any previous analysis relating to the Courtauld 2025 targets or priorities.

It should also be noted that WRAP has changed the factor used to convert tonnes of food surplus to 'meal equivalents'. Previously a factor of 500g for an average meal weight has been used, based on research by Horizons Foodservice, who estimated average meal weight for the hospitality sector at 529g [see here], through an analysis of recommended portion sizes for schools and actual meals served in pubs / restaurants. Following discussions with the Courtauld 2025 Redistribution Working Group it has been agreed that a consistent factor should be adopted by all organisations expressing food surplus as 'meal equivalents'. WRAP will therefore use a factor of 420g, based on the average of a range of typical meal weights, using data derived from Food Portion Sizes, FSA 2008. This does not imply that this many balanced meals could be made from the food surplus, but illustrates what the amount of food surplus might equate to.

[10] *The majority of the difference (around three quarters) results from the removal of data on non-food products (for example home and personal care) from the estimate of surplus redistributed by one of the redistribution organisations*

[11] *Quantification of food surplus, waste and related materials in the supply chain, WRAP 2016*

Table 5: The impact on key statements of revising the 2015 estimate for UK redistribution
*Note that this 2015 data is from the 2016 WRAP report and related communications

	Previously published (2015 data)*	Updated 2015 data	Updated 2017 data
Amount of food redistributed in the UK (tonnes)	47,000	28,500	43,000
Equivalent number of meals redistributed in the UK[12]	112 million	68 million	102 million
Percentage of 2015 estimate of potentially suitable surplus that is actually being redistributed	18%	11%	17%
Amount of food suitable for redistribution **in 2015** (which includes that actually being redistributed; tonnes)	270,000 (266,000 unrounded)	250,000 (248,000 unrounded)	n/a[13]
Amount of food suitable for redistribution, but going to other destinations[14], based on 2015 data (tonnes)	220,000 (219,000 unrounded)	220,000 (219,000 unrounded)	205,000
Amount of food potentially redistributed by 2025 (accounting for the impact of work to prevent surplus being generated in the first place; tonnes)	185,000	170,000	n/a[15]
Potential increase in redistribution **compared to 2015**	Four-fold	Six-fold	n/a[12]
Equivalent number of meals potentially redistributed yearly in the UK by 2025	440 million	405 million	n/a[12]

[12] *These are based on a conversion factor of 420g for an average meal, rather than 500g as used previously by WRAP*

[13] *The amount of surplus potentially suitable for redistribution was estimated as part of the research published in 2016 by WRAP. There are two elements to this estimate – the amount of food that was actually being redistributed in 2015, and the amount of food that would have been suitable for redistribution in 2015 but that was being sent for animal feed or waste treatment. The former has now been updated, but the latter remains unchanged. Whilst there is an updated estimate for redistribution in 2017, the potential for further redistribution has not been updated (hence the 'n/a' in this cell)*

[14] *'Other destinations' include animal feed and waste treatment routes such as anaerobic digestion, composting, incineration, landspreading and landfill*

[15] *The amount of surplus potentially redistributed by 2025 was estimated as part of the research published in 2016 by WRAP. There are three elements to this estimate – the amount of food that was actually being redistributed in 2015, the amount of food that would have been suitable for redistribution in 2015 but that was being sent for animal feed or waste treatment, and (to subtract) the amount of food suitable surplus that may be prevented from arising in the first place by 2025. The first has now been updated, but the latter two remain unchanged. Whilst there is an updated estimate for redistribution in 2017, the potential for further redistribution has not been updated, nor the amount of surplus likely to be prevented from arising (hence the 'n/a' in these cells)*

http://www.wrap.org.uk/content/surplus-food-redistribution-wrap%E2%80%99s-work