

FARESHARE GREATER MANCHESTER

More Deep Diving with Gladys

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Introduction

FareShare Greater Manchester distributes surplus food to over 230 local charities and organisations in the Greater Manchester area to combat food

insecurity. In addition, saving food from going to waste helps combat the current climate crisis as food waste creates a huge carbon footprint.

Objectives

The objective of my internship was to deep dive into FareShare's data system GLADYS to quantify the social and environmental impact of the organisation. My first task was to create and execute a survey to update their database with information that would help them understand more about the people they provide food for.

My main project was to develop a methodology to calculate the organisation's environmental impact. FareShare saves food from going to waste by redistributing it to charities. This avoids possible CO2 emissions from creating unnecessary extra food and it avoids CO2 emission from waste disposal, such as greenhouse gas emissions from landfill sites.

Method

▶ Conducting a survey to update the database GLADYS
Doing the survey made me understand the vast number of things to take into consideration when doing a survey, such as; people not filling the survey correctly, skipping important questions or not filling the survey at all.

▶ Data analysis in Excel
The data analysis was done by pulling the raw data from their internal data base (GLADYS) to clean and analysing it using Excel. I enhanced my Excel skills in creating VBA macros, pivot tables and bar charts.

▶ Establishing a methodology to calculate avoided CO2 emissions
To calculate how much CO2 FareShare saves the environment I researched greenhouse gas emissions from food production and food disposal. We wanted the methodology to be based on the most accurate and official sources regarding greenhouse gas emissions and I used the UK official conversion rates for food production and the IPCC official guidelines for greenhouse gas emissions to calculate emissions from landfill disposal. Calculating the emissions from different lifecycles of food is complex and I created a large report describing the methodology and the findings of the calculations.

Results and Conclusions

Throughout the internship I conducted data analysis to create short reports regarding the number of people reached and the number of meals provided. This information was used for various purposes, for example, it was used on a segment on BBC radio where FareShare presented that they expected to provide over 21 tonnes of food, reaching almost 5000 kids through 57 holiday schemes during the summer holiday.

My main project, the environmental report on CO2 savings, will be used as a reference point for the nationwide FareShare UK organisation when

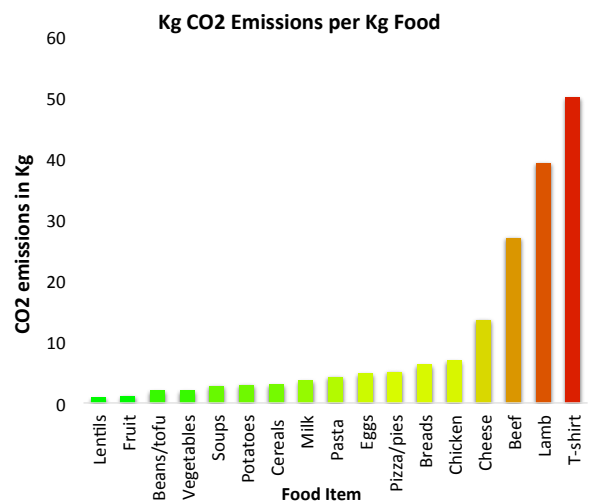


Figure 1. Illustrating the CO2 emission from different food and items..

they will update their method for calculating the environmental impact of redistributing surplus food, as I found several limitations regarding their current method of calculating CO2 emission.

In addition, I created an excel sheet that automatically calculates CO2 savings when the the raw data from our database GLADYS is pasted into it. The Excel sheet presents the CO2 savings and real-life examples on how much the amount of emission is equivalent to. This ensures that the organisation can easily do the calculations themselves in the future. The findings were presented internally, to journalists and on social media:

In the financial year of 2018 and 2019 FareShare redistributed 2,337.37 tonnes of food. Had it gone to landfill, the emissions from the food production and the landfill waste disposal would have been equivalent to 13,039 tonnes CO2. This is equivalent to the footprint of 55,723 passenger seats on European return flights, the average footprint of 2,607 UK individuals and 0.57% of Manchester's total yearly emission in 2015. Redistributing surplus food instead of disposing it does not only help feed the hungry, but it helps the environment.

Key Skills Learned

- ▶ How to conduct a survey, online, over the phone and in person. Doing this also developed my communication skills.
- ▶ GDPR and privacy concerns. We had to consider privacy concerns and marketing approval when doing the survey and when we presented our findings.
- ▶ Excel skills. I enhanced my Excel skills in making VBA Macros, pivot charts and tables, and other formulas.