Mission Statement

FairBite | ECCE App Challenge 2025 | BCIT Team GigaBite

Economics provides a framework to understand the allocation of finite resources under scarcity, which builds a crucial foundation to understand how the dynamics in the production, distribution, and consumption of goods and services can continue to sustain basic human requirements for future generations.[1] Access to food is one of these requirements that is becoming increasingly inaccessible as costs of living rise. This has increased levels of food insecurity, which can be defined as the inadequate or insecure access to food due to financial constraints. In 2018, 12.5% of households experienced some extent of food insecurity in British Columbia.[2] In 2021, this number increased to 14.9% with disruptions in the global food supply and distribution chain after the COVID-19 pandemic.[3] As of recently in the City of Vancouver, 10.9% of households reported experiencing food insecurity in 2023.[2]

So how can we better achieve food security, a future in which all populations have equitable opportunities to physically and socioeconomically access sufficient and nutritious food to meet one's dietary needs?[4] FairBite aims to address the multiscalar and multidimensional nuances related to food insecurity in the City of Vancouver. The app is designed to measure the three core facets of food insecurity: food availability, accessibility, and affordability.[5] Availability refers to the physical supply of nutritious food defined by its production and distribution patterns in the context of associated retailers. Accessibility refers to the ability to obtain food with considerations to travel time, distance, costs, and physical features. Affordability refers to the ability to purchase food within one's means predicated on household income levels.

Statement of Characteristics

The first page of FairBite is designed for the general public, planners, and stakeholders to assess how experiences of food insecurity can be produced on a macro scale using the Neighbourhood Profile Searcher tool. This tool allows viewers to navigate each of the twenty-two neighbourhoods in the City of Vancouver to visualize the spatial and numeric distribution of average household incomes, food outlet types, and how these trends interact with extent of accessibility to these outlets by walking and transit modes. The second page of FairBite is designed to empower the everyday consumer on a micro scale by providing the Locator and Navigator tools. These tools provide navigation to custom filtered food supplier lists that cater to the user's food purchase and consumption preferences by accounting for relevant economic and proximal factors. FairBite provides Vancouver residents with the agency to make informed decisions about how to realistically procure nutritious food based on budget, travel, and supplier considerations on a micro scale, and support research into understanding the trends of food insecurity on a macro scale across neighbourhood boundaries.

StoryMaps:
https://arcg.is/1GHqXv0

FairBite App:
https://www.arcgis.com/home/item.html?id=ecb198cd36854420aa3ac703c5d59836#overview