

North Shore Farms and Food Coalition – 2024 Food Access Project

Grocery Stores, Farmers Markets, Farm Stands and Food Banks Data Collection Method

- Project Overview: The below outlines the data sources and processes used to compile point data for the locations of supermarkets, grocery stores, farm stands, farmers markets and food pantries in Danvers, Beverly, Peabody, Salem and Lynn. Also included in this dataset are supermarkets / grocery stores that border the 5 towns listed above.
- For a store to qualify and be included in the final dataset, we determined that they must sell fresh fruits and vegetables in addition to other foods. For example, many of the datasets below included “convenience stores”. We used Google search to attempt to verify if fresh produce was sold at these stores. If they did, they were included in the final dataset.

Data Limitations

- The final dataset is a compilation from numerous different data sources from different years and may not represent all stores/farmer’s markets/farm stands /pantries in the study area. We made every effort to find all grocery stores and to verify that the included stores are operational and qualify as grocery stores. However, some stores/farmer’s markets/farm stands /pantries may have been missed, may no longer be open or might not sell fresh produce, potentially leading to inaccuracies in the final data. Additions and updates will be made as new information arises.

Initial Datasets

ID	Data Source	Data processing	Notes
1	MassGIS LCLU from 2016 https://www.mass.gov/info-details/massgis-data-2016-land-coverland-use	Filtered to only show “Use Code” 324, it displays parcels with “Supermarkets (in excess of 10,000 sq. ft.)” - website with code index: https://www.mass.gov/doc/property-type-classification-codes-non-arms-length-codes-and-sales-report-spreadsheet/download	This does not account for smaller grocery stores.

ID	Data Source	Data processing	Notes
2	MassGIS Farmers Markets https://www.mass.gov/info-details/massgis-data-farmers-markets		Shows seasonal and winter markets. Does not account for all farmers markets / farm stands.
3	USDA Local Food Directories https://www.ams.usda.gov/local-food-directories/farmersmarkets	Provides data for farmers markets, CSA's, food hubs and on-farm markets	Doesn't include grocery stores / supermarkets.
4	Open Street Map (https://overpass-turbo.eu/#)	<pre>[out:json]; (node["shop"]="supermarket"](41.5,-71.95,43.75,-69.5); node["shop"]="grocery"](41.5,-71.95,43.75,-69.5); node["shop"]="convenience"](41.5,-71.95,43.75,-69.5); node["shop"]="dairy"](41.5,-71.95,43.75,-69.5); node["shop"]="butcher"](41.5,-71.95,43.75,-69.5); node["shop"]="bakery"](41.5,-71.95,43.75,-69.5); node["shop"]="fishmonger"](41.5,-71.95,43.75,-69.5); node["shop"]="health_food"](41.5,-71.95,43.75,-69.5); node["shop"]="market"](41.5,-71.95,43.75,-69.5); node["shop"]="farm"](41.5,-71.95,43.75,-69.5); node["shop"]="general"](41.5,-71.95,43.75,-69.5); node["shop"]="greengrocer"](41.5,-71.95,43.75,-69.5); node["shop"]="deli"](41.5,-71.95,43.75,-69.5); node["shop"]="food"](41.5,-71.95,43.75,-69.5); node["amenity"]="marketplace"](41.5,-71.95,43.75,-69.5); node["shop"]="farmers_market"](41.5,-71.95,43.75,-69.5); node["shop"]="food_stand"](41.5,-71.95,43.75,-69.5);); out body;</pre>	<p>Used code to the left to query OSM (through overpass-turbo) for all variables to the left.</p> <p>This returned some stores that would not qualify as grocery stores. Used Google search to verify if convenience stores, dairy, butcher, fishmonger, market, deli, food and marketplace meet criteria for grocery stores and could thus be included in final dataset.</p>

ID	Data Source	Data processing	Notes
5	Parcel Data from each town's assessor.	<p>Filtered for:</p> <p>USE_CODE 324 - Supermarkets (in excess of 10,000 sq. ft.) 325 - Small Retail and Services stores (under 10,000 sq. ft.)</p> <p>USE_DESC Supermarkets (in excess of 10,000 sq. ft.) Small Retail and Services stores (under 10,000 sq. ft.)</p> <p>STYLE Super Market SUPER MKT Supermarket STORE Store Conv. Market CONVEN MKT CONVENTIONAL BIG BOX RTL</p>	<p>This assisted in identifying some grocery stores that are smaller than 10,000 sq. ft. However, it also identified some stores that would be classified as convenience stores. As explained above, if we could verify that these convenience stores also sold fresh produce, they were included in the final dataset.</p>
6	<p>USDA https://www.fns.usda.gov/snap/retailer-locator</p>	<p>SNAP Retailer Locator - Filtered for our 5 towns. Clipped to only include Store_Types:</p> <p>Supermarket Super Store Specialty Store Grocery Store Farmers and Markets</p>	<p>This data set shows store locations that accept SNAP food assistance. Includes some convenience stores that would not be considered grocery stores and therefore, are not included in the final dataset.</p>
7	Food Pantries / Food Banks - Source: Web / Google	Created point feature class "FoodBanks" and placed points based on Google Maps inquiry.	It is likely that this does not include every food

ID	Data Source	Data processing	Notes
			pantry in the 5 towns. Limited by data availability.
8	Farm Stands / Farmers Market – Source: North Shore Farms & Food Coalition members, local knowledge of Greenbelt Staff and Web search	Created point feature class for Farm Stands / Farmers Markets based on local knowledge and Google Search.	

Final Dataset

- All feature classes include the following fields:
 - Store_Name
 - Store_Type
 - Full_Address
 - City
 - Source
- Note: Some layers that were compiled from Open Street Map, USDA, MassGIS, etc. have more fields than the ones listed above. Fields vary based on the source data. Since different source data was compiled into each feature class, some rows may have null values for the additional fields where no source data was present in the original data.
- Note: Recommend using “unique values” symbology and choosing Store_Type for the field to see the different types of stores in each feature class.
- Note: Recommended coordinate system: NAD 1983 StatePlane Massachusetts FIPS 2001

Final Feature Class Name	Data Sources	Notes
GroceryStores_Merge	Data source ID's 1, 3, 4, 5, 6	After filtering out non-grocery stores and duplicates, combined these datasets into feature class GroceryStores_Merge.
FarmStands_FarmersMarkets_Merge	Data source ID's 2, 3, 8	After removing duplicate entries, combined these datasets into feature class FarmStands_FarmersMarkets_Merge
FoodBanks	Data source ID 7	This dataset is named FoodBanks
FoodOutside5towns	Created feature class	This dataset was compiled using Google search and included grocery stores that are near the borders of the 5 towns included in this study.

For more information or question related to the data collection / data processing, please email Jason Risberg (intern@ECGA.org or J_Risberg@salemstate.edu) or Abby Hardy-Moss, Director, Conservation Technology and Planning Division at Essex County Greenbelt Association (abby@ecga.org).