COULD YOU BE LIVING IN A FOOD DESERT? A CASE FROM FREDERICTON, NB

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LAND ACKNOWLEDGEMENT

Fredericton is situated on the traditional territory of the Wolastoqiyik, Wəlastəkewiyik / Maliseet, whose ancestors along with the Mi'Kmaq / Mi'kmaw and Passamaquoddy / Peskotomuhkati Tribes / Nations signed Peace and Friendship Treaties with the British Crown in the 1700s.

We are grateful for this land and the people who have tended it for thousands of years. We encourage everyone to think about their relationship with nature and with the people who have tended to the land.

ACKNOWLEDGEMENTS

We would like to thank Food for All NB for supporting this research and being a key partner in ensuring the results of this research are distributed and used to advocate for systemic change that will help address food insecurity in Fredericton and New Brunswick.

This project initially started as a student project in *SEST2123: Food and Society* in the Sustainability and Environmental Studies program at St. Thomas University. Emma Gabriel, Molly Hansen, Aimee Gouvernet and Seth Russell were tasked with mapping food deserts in the City of Fredericton. Thank you for contributing to the foundation of this project.

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We also thank the City of Fredericton for providing openly accessible ward boundary files that made this analysis possible.

EXECUTIVE SUMMARY

This report presents findings from an analysis on food deserts in Fredericton, New Brunswick. Using a network-based approach in a Geographic Information System (GIS), we inputted grocery store locations, mapped walkable service areas, and cross-referenced these against income data to determine which communities live in food deserts.

The study identified 20 grocery stores within Fredericton's ward boundaries. Despite this number, 67.6% of the city's population, approximately 46,481 people, lack physical access to a grocery store within walking distance (1,000 metres via the road network). Of the 25.6% of residents living in low-income regions, nearly half (46.6%, or 8,189 people) also lacked physical access to a grocery store, meaning that they live in a food desert. Across the city, 11.9% of the total population lives in a food desert.

67.6% LACK PHYSICAL ACCESS TO A GROCERY STORE

11.9% OF THE TOTAL POPULATION LIVE IN A FOOD DESERT

56.7% OF THOSE LIVING IN LOW INCOME REGIONS ARE SERVICED BY SMALL GROCERY STORES

46.6% OF THOSE LIVING IN LOW INCOME REGIONS LIVE IN A FOOD DESERT

The report highlights the significant role of small, independent and cultural grocery stores in serving low-income regions. Of those living in low-income regions with physical access to a grocery store, over half were served exclusively by small grocery stores. This underscores the importance of community-centred and culturally appropriate food retail in meeting residents' needs.

Based on these findings, we offer three recommendations: a guaranteed basic income to address the affordability dimension of food access; targeted support for small and culturally appropriate grocery stores; and an adoption of the food apartheid framework to name and respond to the systemic and racialized policies and conditions that produce unequal food environments.

FOOD SECURITY

Food security exists “when all people, at all times, have physical and economic access to sufficient, safe, and nutritious food that meets their dietary needs and food preferences for an active and healthy life” (FAO, 2023, p. 246). Food insecurity refers to inadequate quantity or quality of healthy food options when needed.

Food security →

A situation that exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences (including cultural) for an active and healthy life.

The most recent national data indicates that approximately 25.5% of Canadians, about 10 million people, live in food-insecure households (Statistics Canada, 2026a). Food insecurity rates in New Brunswick (NB) have historically exceeded the national average, with the province consistently ranking among one of the most food-insecure provinces in the country. Recent data shows that 29.5% of households in NB are experiencing food insecurity (Statistics Canada, 2026a). The province recorded one of the highest increases in food costs in the last year in Canada, at 7%, compared to a national average of 5.7% (Statistics Canada, 2026b).

The inverse of food security, meaning that there is inadequate quantity or quality of healthy food available when needed.

← Food insecurity

It is important to note that some groups of people, including those living with low incomes, immigrants, new Canadians, people living with disabilities, single-parent female-led families, and members from Black communities, Indigenous or communities of colour are more likely to experience food insecurity.

COMMUNITY FOOD SECURITY

Many statistics about food security, including the ones above, are obtained based on household levels of food insecurity. In Canada, this is largely done through the Household Food Security Survey Module (HFSSM) that is incorporated into the Canadian Community Health Survey (CCHS), which is a survey collected by Statistics Canada on health-related data, including levels of food security. Although such data is valuable, it is important to note that food security is a complex issue that is influenced by broader, systemic factors like income inequality, transportation barriers, types of available food outlets, urban planning and racial inequality. As such, we know that individuals and household levels of food security are shaped by the environments in which they live.

Community food security is a concept that aims to shift the focus from the household level to the community level. Community food security focuses on ensuring food access and availability at the community level, often using local and place-based solutions and policies (Koç et al., 2023).

Community food security asks whether a community has the infrastructure, resources, and social conditions necessary for its residents to meet their food needs with dignity. When measuring community food security, the number of food-insecure households is considered, but other factors such as the number and locations of grocery stores, availability of community gardens, or access to fresh fruits and vegetables, also play a key role.

It is within the framework of community food security that researchers and practitioners have explored the concept of food deserts.

Food deserts are neighbourhoods where residents have difficulty buying healthy foods, like fresh fruit and vegetables, because there is a lack of grocery stores or supermarkets that stock those items. This forces residents to travel long distances to fully stocked grocery stores or to eat less nutritious food that is closer to their homes. Depending on whether the area is urban or rural, food deserts are measured differently. In many urban municipalities, food deserts are measured using a 1000m (1km) distance from the nearest grocery store. This is assumed to be a reasonable walking distance regardless of age, mobility, safety or weather. The distance alone does not define a food desert. Studies often incorporate income, acknowledging that residents with low incomes have fewer transport options and are thereby more impacted by their food environments. The combination of the physical distance and economic disadvantage contribute to the conditions of a food desert. One of the earliest studies on food deserts in Canada was conducted in London, Ontario. The study clearly demonstrated that those living with low incomes had the poorest access to supermarkets and that, over time, their access got worse (Larsen & Gilliland, 2008).

Although not the focus of this report, it is important to note that there are other important concepts under community food security. These include food swamps, which refer to areas where healthy food options are crowded out by an abundance of unhealthy options such as fast-food restaurants, convenience stores, and gas stations. Food swamps are a prevalent issue in Canadian cities and can have a large negative impact on the health of residents (Robitaille & Paquette, 2020). For example, research from Gaspésie, Quebec found that food swamps are more common in areas with higher levels of deprivation and that food swamps impact food choices as well as influence food preferences and norms (Robitaille & Paquette, 2020).

Another important concept is food mirage, which refers to areas where healthy, affordable food appears accessible, mainly due to the presence of a nearby grocery store, but is not truly accessible in practice due to high prices, limited stock or lack of culturally appropriate food items. For example, a recent study in Toronto demonstrated how food deserts and food mirages were associated with gentrification across the city (Menko et al., 2025).

FOCUS ON FREDERICTON, NB

This report explores food insecurity at the community level in Fredericton, New Brunswick. We examine how the geographic distribution of grocery stores across Fredericton's 12 wards interacts with neighbourhood income to produce conditions of food access inequality.

A recent report from the City of Fredericton (2025) claims that about 20% of households in Fredericton earn $37,000 or less annually. Further, increasing housings cost are having a large impact on affordability (City of Fredericton, 2025). Despite these conditions, there is no spatially rigorous, ward-level food desert analysis of Fredericton that has previously been conducted. To the authors' knowledge, no food desert map of an Atlantic Canadian municipality exists in literature at the time of publication of this report. As such, this report represents the first spatially rigorous food desert analysis of a municipality in Atlantic Canada. This report addresses that gap and offers findings intended to inform policy, advocacy, and community action.

METHODS

Area of Study
The study area consists of the twelve municipal wards of Fredericton, New Brunswick. Ward boundaries were obtained openly from the City of Fredericton. The total population within the twelve wards, based on 2021 Census data, is 68,727. Ward boundaries were selected as the unit of analysis because they represent local governance boundaries and were accessible to the public.

Defining a Grocery Store
New Brunswick does not have provincial legislation that defines various food outlets like grocery stores. As such, we were required to develop a working definition for this study. A grocery store was defined as: any permanent, non-seasonal retailer that sells fresh, unprocessed meat and produce. Permanence and non-seasonality were required to ensure physical accessibility at all times, which is consistent with the food security principle of access. The requirement for fresh, unprocessed meat and produce was used as a reliable indicator of the infrastructure, licensing, and supply chain capacity needed to stock a full range of groceries including dairy, eggs, and bread. The inclusion of unprocessed foods reflects the nutritional dimension of food security and aligns with the conventional understanding that a food desert is an area lacking access to healthy food. This definition is intentionally broad enough to capture small and cultural grocers and food markets alongside large supermarket chains, while excluding most convenience stores and seasonal farmers' markets.

Grocery stores were further classified as large or small. Large stores were defined as those owned by one of Canada's five dominant grocery retailers: Loblaws, Sobeys, Metro, Walmart, and Costco, which together account for approximately 80% of the Canadian grocery retail market (Nixon & Bester, 2024). All other qualifying stores were classified as small.

Store Identification and Verification
An initial list of potential grocery stores within the study area was generated using Google's Places API and supplemented with Yellow Pages. Each location was then verified through in-person field observation to confirm it met the study definition. At that time, coordinate data was collected directly at store entrances where satellite data was outdated or inaccurate. Although time consuming, this field verification process ensured accuracy and replicability in a manner consistent with other Canadian food desert studies.

Service Areas and Network-Based Analysis
Service areas were defined as the geographic area reachable within 1,000 metres of a grocery store via the road network. The 1,000-metre threshold represents the standard walking distance used in urban Canadian food desert research and reflects the assumption that residents experiencing socioeconomic distress are less likely to have reliable access to a private vehicle or less options for other types of transport. A network-based isodistance approach was used rather than a circular buffer (straight-line distance), as the road network more accurately reflects the real-world constraints on pedestrian travel.

Service area → Geographic area reachable within 1,000 metres of a grocery store via the road network

All spatial analysis was conducted in QGIS, a free and open-source Geographic Information System. Service areas were generated using the ORS Tools plugin. Ward boundaries, store coordinates, and census dissemination data were all imported and analysed within QGIS.

Income Classification
Income data was obtained at the Dissemination Area (DA) level from the 2021 Census. The Low-Income Measure After Tax (LIM-AT) was used as the income indicator. The LIM-AT defines a household as low-income if its after-tax income falls below 50% of the national median household income, adjusted for household size using a square root equivalency scale (e.g., $26,503 for a single-person household; $53,005 for a four-person household).

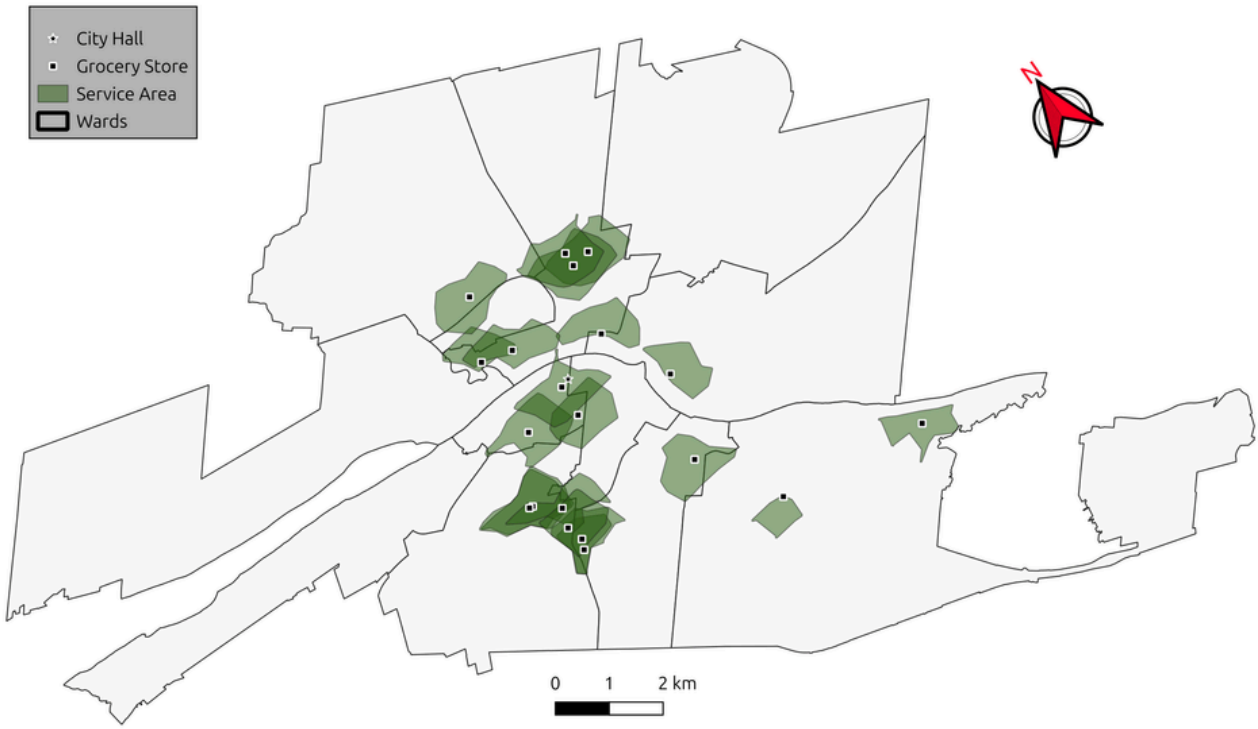
The percentage of residents below the LIM-AT threshold was calculated for each DA and divided into five equal quintiles. DAs in the fifth quintile are those with the highest 20% of low-income rates. This means that 19.5–37.2% of residents live below the LIM-AT and are thereby classified as low-income regions. This approach is simple, replicable, and consistent with other Canadian food desert studies, though the use of national rather than regional thresholds is acknowledged as a limitation.

Operationalizing Food Deserts
A Dissemination Block (DB), which is the smallest geographic unit for which Statistics Canada collects data, was classified as a food desert if it met two conditions simultaneously: (1) it fell within a DA classified as a low-income region (fifth quintile), and (2) its geographic centroid fell outside the 1,000-metre service area of any qualifying grocery store. Population counts were attributed to DBs, and those meeting both criteria were considered food desert populations.

RESULTS

Grocery Stores Across the City

The study identified 20 grocery stores within Fredericton, which is an average of approximately 1.7 stores per ward. Five of the twelve wards, including wards 1, 3, 5, 11, and 12, contained no grocery store within their boundaries, relying instead on service areas originating in adjacent wards.



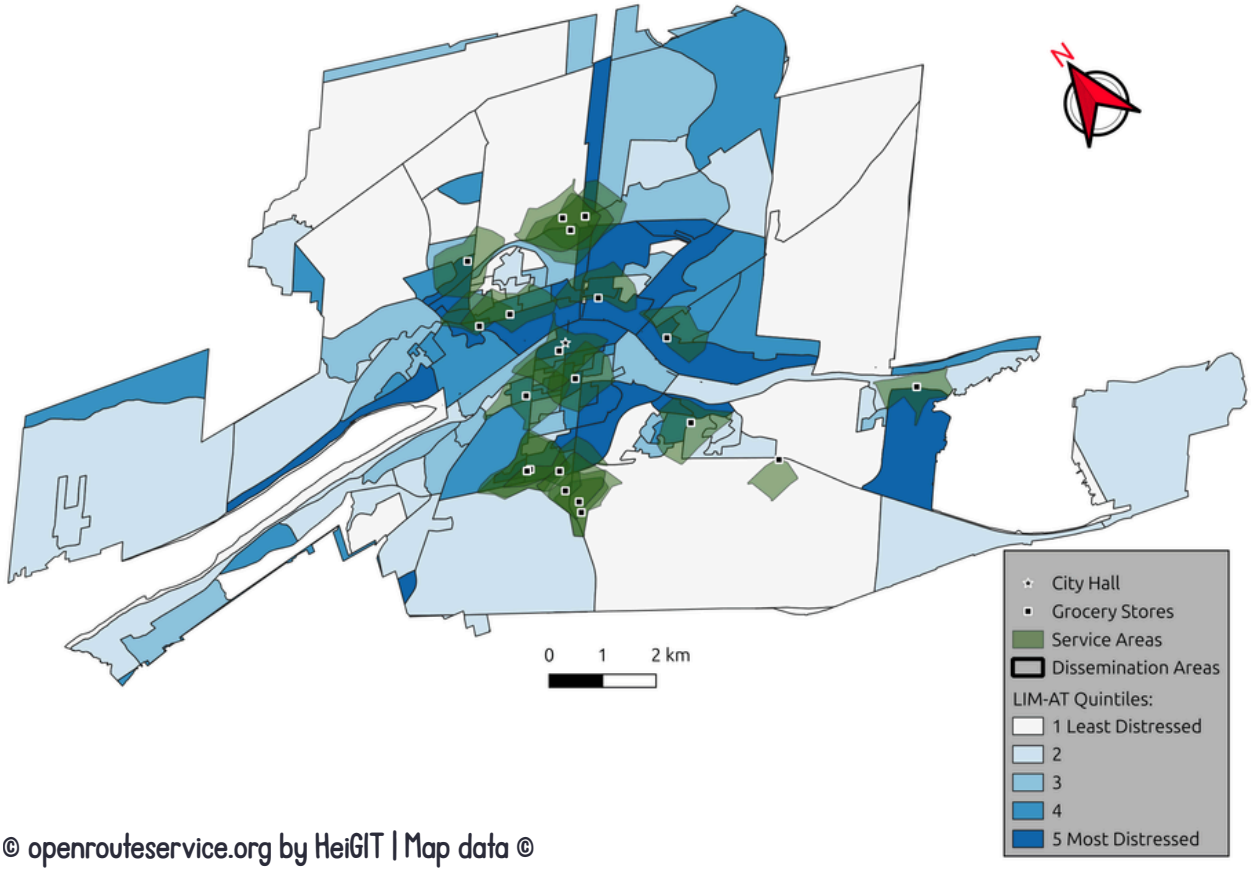
© openrouteservice.org by HeiGIT | Map data ©

The map above demonstrates the distribution of grocery stores and their accommodating service areas in Fredericton. A full list of grocery stores can be found in the appendix. The grocery stores are quite unevenly distributed throughout the city. Many stores are concentrated in the central areas of the city. There are two clusters of large grocery stores on the periphery of the city.

Despite 20 stores being present across Fredericton, 67.6% of the total population (46,481 of 68,727 residents) lack physical access to a grocery store within walkable distance. This means that only one-third of Fredericton residents live within 1,000 metres (1km) of a grocery store via the road network.

Income Distribution

Income analysis identified that 25.6% of the total population (17,581 residents) live in dissemination areas (DAs) classified as low-income regions (fifth quintile).



This map outlines the grocery stores, their accommodating service areas and the 5 quintiles. The 1st quintile is considered least distressed because 0–5.7% of its population falls below the LIM-AT. The region is considered least distressed as very few residents are living below the national median household income. The 5th quintile represents DAs where 19.5–37.2% of the population falls below the national median household income and is thereby considered most distressed.

Food Deserts

Of those living in low-income regions, 46.6% (8,189 residents) also lacked physical access to any grocery store, meeting the study's definition of a food desert. This represents 11.9% of Fredericton's total population.

The final map above incorporated the element of food deserts. The yellow sections demonstrate the DB that are food deserts in Fredericton. Fredericton is home to two universities, including St. Thomas University and University of New Brunswick, both of which are located in a food desert. Fredericton's New Brunswick Community College is also located in a food desert.

Role of Small Grocers

Our findings demonstrate that of those living in low-income regions 56.7% (5,327 residents) were served solely by a small grocery store, and 13.6% (1,274 residents) had access to both large and small stores. By contrast, 29.7% (2,791 residents) were served exclusively by a large grocery store.

Examples of small stores serving these populations include Victory Meat Market and Bitar Market Convenience, the latter of which is culturally significant for local Arabic-speaking and Middle Eastern communities, as well as One Nation Market, a halal grocer. These stores provide not only food access, but culturally appropriate food in ways that large chain supermarkets often cannot.

These findings underscore a pattern consistent with the broader Canadian literature. It is smaller, independent, and often culturally specific grocery stores, not large supermarkets, that serve communities living with low-incomes (Komakech & Jackson, 2016).

MAIN FINDINGS SUMMARY

20 GROCERY STORES IN FREDERICTON = ~1.7 STORES PER WARD

67.6% LACK PHYSICAL ACCESS TO A GROCERY STORE

25.6% OF THE POPULATION LIVES IN A LOW-INCOME REGION

56.7% OF THOSE LIVING IN LOW INCOME REGIONS ARE SERVICED BY SMALL GROCERY STORES

29.7% OF THOSE LIVING IN LOW INCOME REGIONS ARE SERVICED BY LARGE GROCERY STORES

46.6% OF THOSE LIVING IN LOW INCOME REGIONS LIVE IN A FOOD DESERT

RECOMMENDATIONS

Establish Basic Income Guarantee
Food deserts are as much a problem of affordability as of proximity. Research consistently demonstrates that geographic access to food retail is not, on its own, a solution to food insecurity. Simply adding grocery stores to underserved areas will not improve levels of food security or food access if residents cannot afford the food or if the stores do not provide culturally appropriate foods.

Basic income guarantee is a promising policy tool that can address the systemic issue of affordability. Dr. Valerie Tarasuk's PROOF research program has established that food insecurity in Canada can be significantly impacted by policy decisions that affect household finances (Tarasuk, 2017). Canada has experimented with basic income guarantee in the past. Guaranteed annual income experiment in Dauphin, Manitoba ran from 1974 to 1979. Although the pilot ended abruptly and no final report was published, data from the pilot demonstrated significant improvements on health outcomes, education retention and overall well-being (Forget, 2013). Ontario's Basic Income Pilot, which ran from 2017 to 2019, demonstrated significant reduction in food insecurity (Martin & Favreau, 2020). Others point to Old Age Security, Canada Child Benefit or Canada Emergency Response Benefit during COVID-19 as forms of universal income distribution models. Prince Edward Island is now campaigning for basic income guarantee across the province.

Policy makers at the federal and provincial levels should prioritize income-based solutions to food insecurity. A basic income guarantee would not only address food access; it would also reduce stress on community food programs, take pressure off the health care system, support local food retail by increasing purchasing power in underserved areas, and address the root economic conditions that produce food deserts in the first place.

Basic income guarantee is a promising policy tool that can address the systemic issue of affordability.

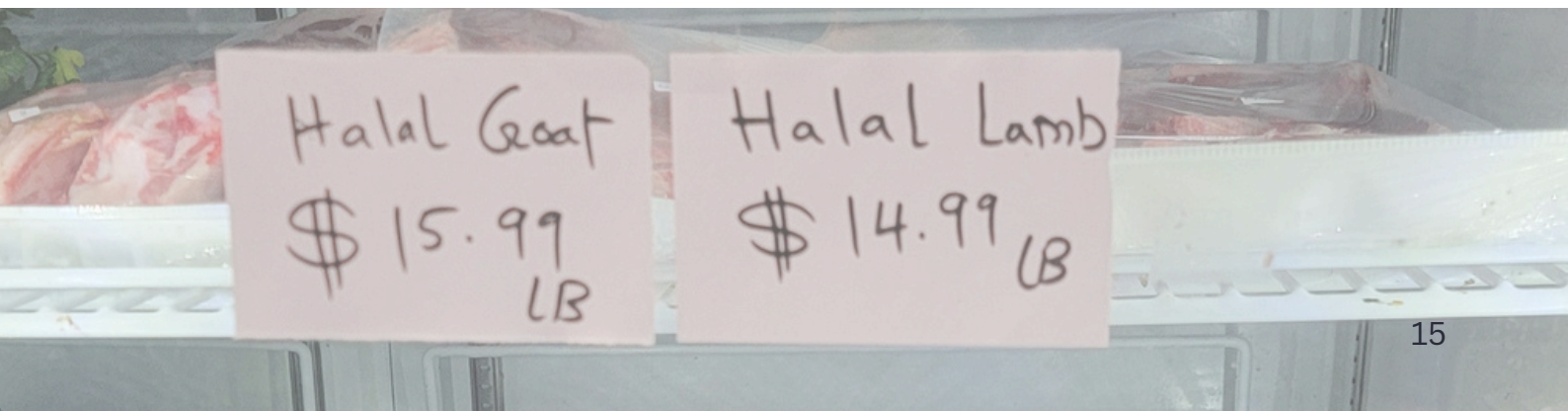
Support Small and Culturally Appropriate Grocery Stores
Our findings align with other research that demonstrates that small, independent, and culturally specific grocery stores are more likely than supermarkets to serve communities living with low incomes. Policy interventions that focus exclusively on attracting large chain supermarkets to underserved areas have repeatedly shown limited effectiveness in changing dietary behaviour or reducing food insecurity (Komakech & Jackson, 2016; Odoms-Young et al., 2024).

Research across North American cities has documented that communities with low-incomes or equity-deserving communities have significantly more small grocery stores than predominantly white, higher-income areas, and that these stores can provide critical access to healthy food. A lot of research on food desert maps does not take small grocery stores into account and thereby potentially misses this important point.

Providing financial, logistical or technical support to small grocery stores can yield great benefits not only to community food security, but also to practicing and preserving various cultures and strengthening the economic power of those communities.

There are currently a lot of discussions around public grocery stores. We encourage decision makers to consider cultural components or impacts if public grocery stores are to be used as a tool of potentially addressing food insecurity. Cultural representation and community input or governance in store design and operations would be very important.

It is important to note that our field observations identified several locations in Fredericton that did not fully meet the study's grocery store definition but possessed the physical infrastructure, including shelving, refrigeration, and floor space, to stock fresh and nutritious food with minimal additional investment. Targeted support for these locations could significantly expand food access coverage across the city.



Adopt a Food Apartheid Framework

We recommend that community organizations, public health bodies, and municipal governments in Fredericton and beyond move toward adopting the language and framework of food apartheid in addition to, or in place of, food deserts when discussing food access inequities.

The term 'food desert', like 'food swamp,' falsely implies that poor food access is naturally occurring. Poor access to food is a result of systemic and historic forms of oppression and discrimination, like discriminatory zoning, disinvestment, and discriminatory lending practices that have systematically denied certain communities access to resources, including food retail. It also implies that it is a desolate place, when in fact there is a lot of life and culture in all communities. The term food desert can also be stigmatizing, putting blame on the community itself.

Food apartheid, a term coined by activist Karen Washington, names these conditions accurately. It demands structural solutions rather than market-based fixes. The term food apartheid encourages us to think about the underlying issues of inequality and injustices in the food system. It highlights intentional policies like economic exclusion, and discriminatory urban planning that prevent Black, Indigenous and communities of colour from accessing nutritious food.

Food apartheid is also embedded in the concept of food sovereignty, which calls for a more localized food system in which small farmers, Indigenous peoples, and communities of colour have greater power and self-determination over food production and distribution.

Adopting a food apartheid framework would mean acknowledging in policy language and public communications that food access inequities are structurally produced, not naturally occurring. It would include community-led food sovereignty initiatives, like urban farms, food cooperatives, community gardens, and small grocers in food security planning. Using the food apartheid framework would also mean connecting food access policy to other issues like housing affordability, anti-poverty programs, transit equity, and climate resilience. This would all be done by centering Indigenous communities, Black communities and communities of colour in decision-making, rather than imposing top-down, market-driven solutions.

Food apartheid → Encompasses the notion that lack of access to healthy food is a result of systemic discrimination and inequality, especially on the grounds of race.

FINAL COMMENTS

Despite the criticisms of food deserts, maps of food deserts can be valuable tools for making inequality visible, mobilizing political will, and targeting resources. Community organizations have used food desert maps to advocate for policy change, calling for community-controlled food retail spaces, like public grocery stores, supporting community gardens and food cooperatives, and addressing food access alongside transportation infrastructure and broader systems of structural forms of discrimination (De Master & Daniels, 2019). Some have also expanded on food desert maps and include additional data like urban farms, emergency food providers, farmers' markets and others (De Master & Daniels, 2019).

Food desert maps can help us understand where the gaps are; but they do not tell us why those gaps exist or what the realities are of living in those spaces. As such, we see this food desert map as a tool for community organizations, health authorities or policy makers to use. This map is a starting point for a more in-depth discussion on how to address food insecurity.

LIMITATIONS

Assumed travel behaviour: This analysis assumes that residents travel to the closest grocery store within walking distance. Some residents may travel to stores outside the neighbourhood in which they live in search of better prices, preferred brands, or culturally specific products. The analysis cannot determine where people shop. Findings should therefore be understood as reflecting geographic potential access rather than actual food access.

Store classification and definition scope: Some stores that did not fully meet the study definition and were excluded from this analysis. In practice, such stores may provide meaningful access to some food staples for nearby residents. The strict application of our definition may result in a slight overestimation of food desert conditions in areas near these borderline stores.

Income quintile methodology: The use of national LIM-AT quintiles rather than a regional or local income threshold is a recognized limitation. National medians may not fully reflect the economic realities of New Brunswick's labour market, where incomes and cost of living differ from the national median. However, this approach was chosen to ensure consistency and comparability with other Canadian food desert studies, and the LIM-AT remains one of the most widely used and accepted income measures in the Canadian public health literature.

Static snapshot: This analysis reflects a single point in time based on 2021 Census data and field observations conducted during the study period. Grocery store closures, new openings, and shifts in neighbourhood income distribution since the time of the study will not be captured. Food environments are dynamic, and this map should be understood as a baseline rather than definitive or permanent.

Exclusion of non-store food sources: The analysis focuses exclusively on permanent grocery stores and does not account for other sources of food access, including farmers' markets, farm gates, food banks, community kitchens, urban gardens, or meal programs. These community food assets play an important role in the lived experience of food security for many residents, and their omission means that some areas classified as food deserts may have meaningful community food infrastructure that is not captured here.

REFERENCES

City of Fredericton. (2025). City of Fredericton housing needs assessment: 2025 update — executive summary. https://www.fredericton.ca/media/file/2025-fredericton-housing-needs-assessment-executive-summary

De Master, K. T., & Daniels, J. (2019). Desert wonderings: Reimagining food access mapping. *Agriculture and Human Values, 36*, 241–256. https://doi.org/10.1007/s10460-019-09914-5

FAO. (2023). *The state of food security and nutrition in the world*. https://doi.org/10.4060/cc3017en

Forget, E. L. (2013). New questions, new data, old interventions: The health effects of a guaranteed annual income. *Preventive Medicine, 57*(6), 925–928. https://doi.org/10.1016/j.ypmed.2013.05.029

Human Development Council. (2024). *New Brunswick's 2024 child & family poverty report card*. https://campaign2000.ca/wp-content/uploads/2024/11/New-Brunswicks-2024-Child-and-Family-Poverty-Report-Card-1.pdf

Koç, M., Sumner, J., & Winson, A. (Eds.). (2023). *Critical perspectives in food studies* (3rd ed.). Oxford University Press Canada.

Komakech, M. D. C., & Jackson, S. F. (2016). A study of the role of small ethnic retail grocery stores in urban renewal in a social housing project, Toronto, Canada. *Journal of Urban Health, 93*, 414–424. https://doi.org/10.1007/s11524-016-0041-1

Larsen, K., & Gilliland, J. (2008). Mapping the evolution of 'food deserts' in a Canadian city: Supermarket accessibility in London, Ontario, 1961–2005. *International Journal of Health Geographics, 7*, Article 16. https://doi.org/10.1186/1476-072X-7-16

Martin, M. A., & Favreau, J. (2020). *The case for basic income for food security* (The Case for Basic Income Series). Basic Income Coalition. https://basicincomecoalition.ca/wp-content/uploads/2023/09/Case-for-BI-and-Food-Security.pdf

Menko, P., Olstad, D., Buttazzoni, A., & Minaker, L. (2025). Food deserts, food mirages and gentrification in Toronto, Canada. *Health & Place, 94*, Article 103490. https://doi.org/10.1016/j.healthplace.2025.103490

Nixon, A., & Bester, K. (2024). From plow to pantry: Monopoly in the Canadian food system. Canadian Anti-Monopoly Project. https://antimonopoly.ca/wp-content/uploads/2024/10/CAMP-Report-Monopoly-in-the-Canadian-Food-System.pdf

Odoms-Young, A., Brown, A. G. M., Agurs-Collins, T., & Glanz, K. (2024). Food insecurity, neighborhood food environment, and health disparities: State of the science, research gaps and opportunities. American Journal of Clinical Nutrition, 119(3), 850–861. https://doi.org/10.1016/j.ajcnut.2023.12.019

Robitaille, É., & Paquette, M. C. (2020). Development of a method to locate deserts and food swamps following the experience of a region in Quebec, Canada. *International Journal of Environmental Research and Public Health, 17*(10), Article 3359. https://doi.org/10.3390/ijerph17103359

Statistics Canada. (2026a). *Canadian Income Survey, 2024 (CIS)*. Government of Canada. https://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&Id=1552692

Statistics Canada. (2026b). *Average retail food prices data visualization tool* (Catalogue No. 71-607-X). Government of Canada. https://www150.statcan.gc.ca/n1/pub/71-607-x/71-607-x2024005-eng.htm

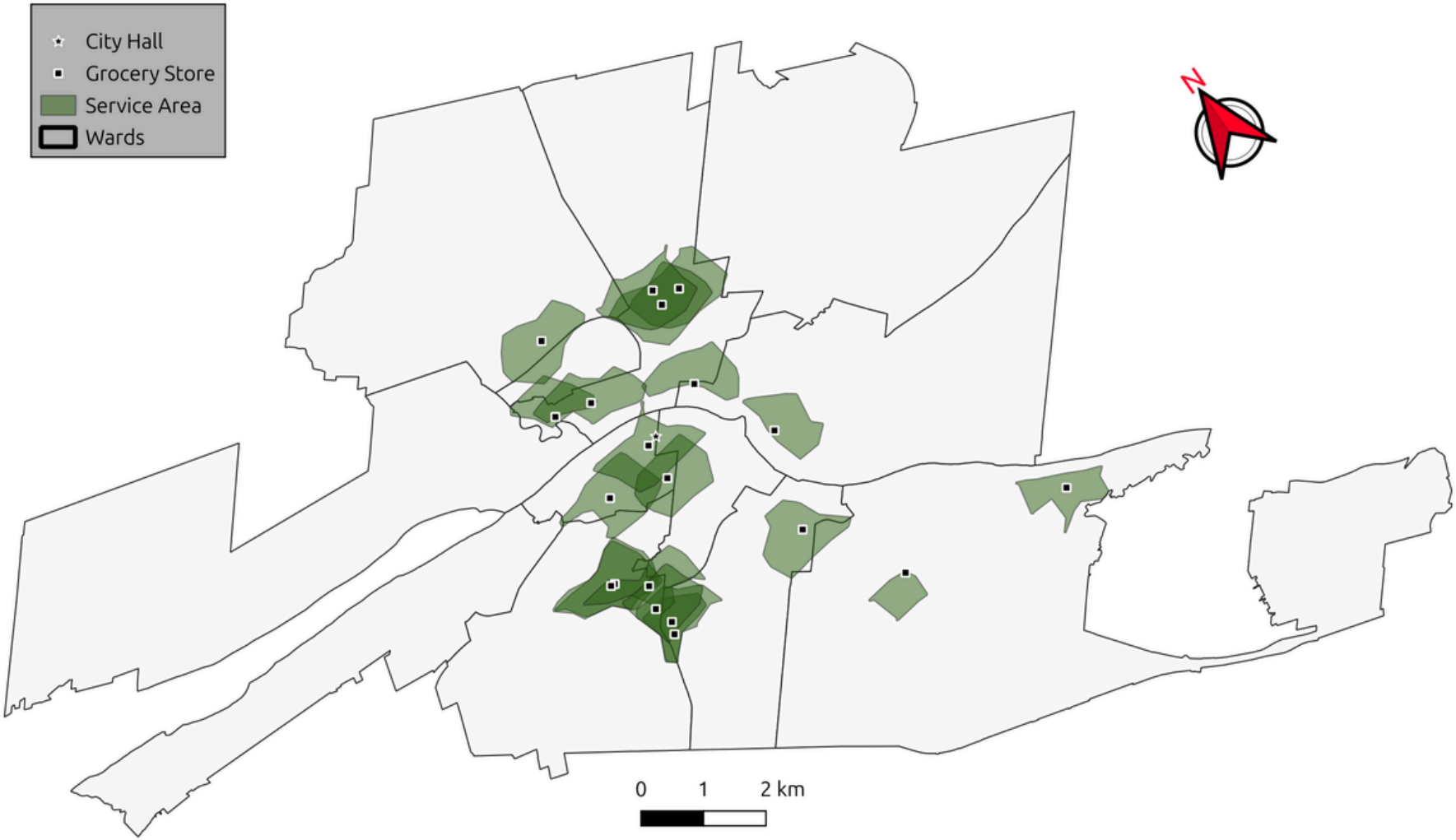
Tarasuk, V. (2017). *Implications of a basic income guarantee for household food insecurity* (Research Paper No. 24). Northern Policy Institute. https://proof.utoronto.ca/

APPENDICES

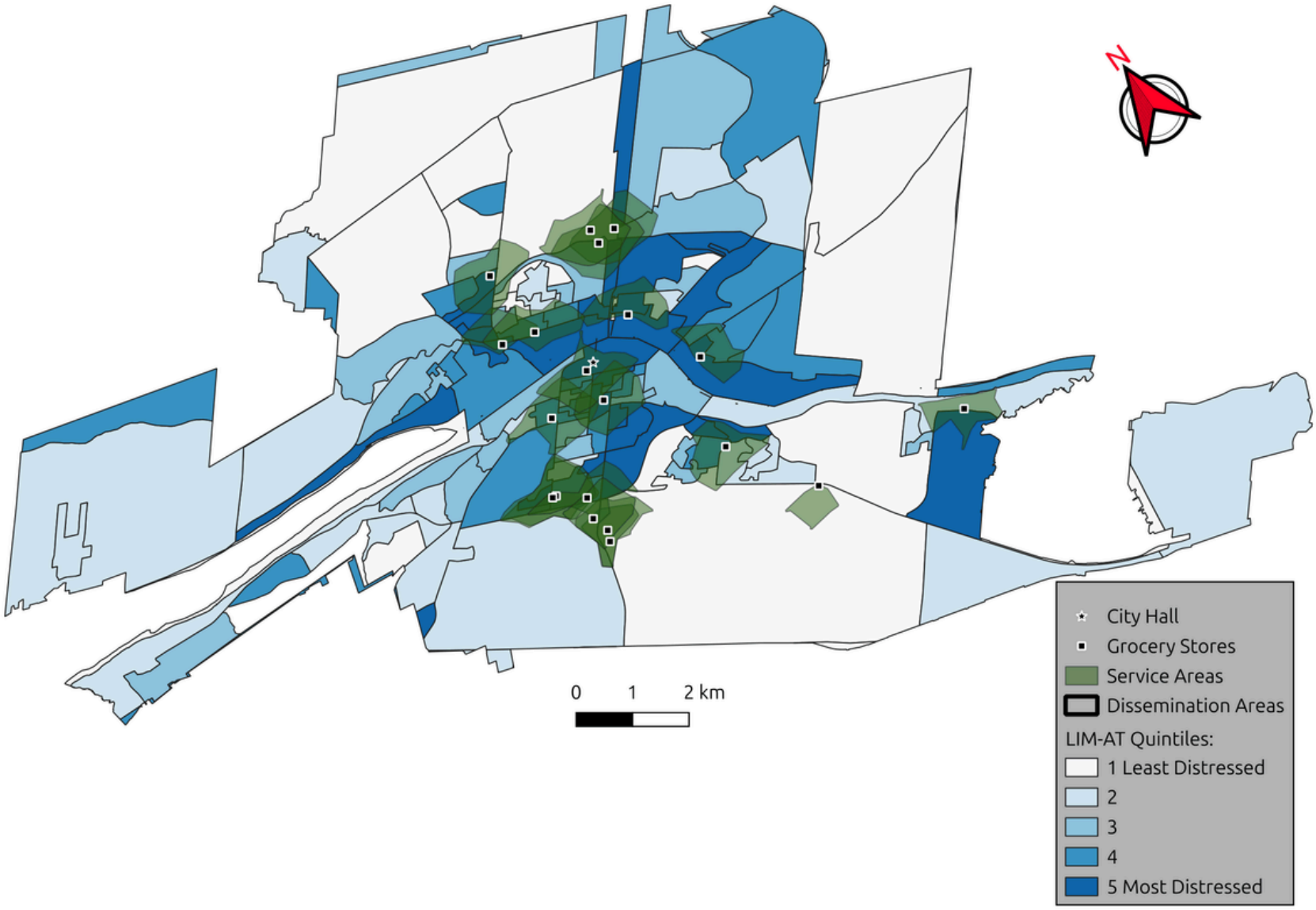
List of grocery stores in Fredericton, NB

Ward	Business Name	Address	Date (Y-M-D)	Small
2	Sobeys -Brookside	463 Brookside Drive Fredericton NB E3A 8V4	2025-11-05	no
4	Atlantic Superstore -Main	116 Main Street Fredericton NB E3A 9N6	2025-11-06	no
	Cliff's No Frills	190 Two Nations Crossing Fredericton NB E3A 0T3	2025-11-06	no
	Peter's Meat Market	230 Main St Fredericton NB E3A 1C9	2025-11-06	yes
	Walmart Supercentre -Two Nations Crossing	125 Two Nations Crossing Fredericton NB E3A 0T3	2025-11-06	no
	Wolastoq Meat Market	680 Howe Street Fredericton NB E3A 0E9	2026-01-29	yes
6	Bitar Market Convenience Store	79 Riverside Drive Fredericton NB E3A 3X9	2026-01-29	yes
	Giant Tiger -Union	598 Union Street Fredericton NB E3A 3N2	2025-11-05	yes
7	Fredericton Direct Charge Co-Op	170 Doak Road Fredericton NB E3C 2E6	2026-01-23	yes
	Victory Meat & Produce Market Ltd -Lincoln	1853 Lincoln Road Fredericton NB E3B 8P4	2026-01-23	yes
8	Costco Wholesale	25 Wayne Squibb Boulevard Fredericton NB E3C 0G8	2026-01-23	no
	Francesco's No Frills	15 Trinity Avenue Fredericton NB E3C 0B8	2026-01-23	no
	One Nation Market	440 Kimble Drive Fredericton NB E3B 7G6	2026-01-23	yes
9	Giant Tiger -Smythe	1160 Smythe Street Fredericton NB E3B 3H5	2025-11-05	yes
	Green Valley Market	1168 Smythe Street Fredericton NB E3B 3H5	2026-01-23	yes
	Sobeys -Prospect	1180 Prospect Street Fredericton NB E3B 5C7	2025-11-05	no
	Walmart Supercentre -Regent	1399 Regent Street Fredericton NB E3C 1A3	2025-11-05	no
10	Atlantic Superstore -Smythe	471 Smythe Street Fredericton NB E3B 3E3	2026-01-23	no
	Sobeys -Regent	407 Regent Street Fredericton NB E3B 3X6	2026-01-23	no
	Victory Meat & Produce Market Ltd -King	344 King Street Fredericton NB E3B 1E3	2026-01-23	yes

Grocery stores & service areas



Service areas & income distribution



Service areas & food deserts

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Note:
Photo courtesy of Seth Russell.