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Middlesex-London Community Food Assessment

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This report was prepared and written by Eco-Ethonomics Inc., a management consulting company, committed to solving problems that matter to people and the planet through social innovation, ethical leadership, community mobilization and cross-sector collaboration. Eco-Ethonomics specializes in advancing sustainable food systems through increased food sovereignty in Canada.

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Growing Chefs!	Strathroy Middlesex General Hospital
Hamilton Road Food Coalition	Sustain Ontario
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Komoka Wellness & Recreation Complex	The Salvation Army Centre of Hope
London Community Foundation	Transition London Ontario
London Community Resource Centre	Tri-Township Arena
London Farmers' & Artisan Group	Southwest Middlesex Arena
London Food Bank	Southwest Middlesex Health Centre
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GLOSSARY OF KEY TERMS

Area to Cultivate (or Cultivation Area): an identifiable area within a local food system where both challenges and opportunities exist and can be explored by the community towards creating the change they want to see.

Asset: a tangible resource unique to a region/geographical area and held in common by a community, or available to be leveraged by the community towards creating positive change.

Asset Type: there are various types of assets and these can be grouped into 7 unique categories: social and political assets; cultural and spiritual assets; living assets; financial assets; experiential assets; intellectual assets; and material assets (see 1.2 for further explanation and examples).

Asset Harvesting: the act of identifying and/or cataloguing existing assets in a specific region/geographical area.

Asset Mapping: the act of plotting identified assets in a region/geographical area onto a map of the region/geographical area or onto a conceptual framework, such as a food system diagram.

Community Food Assessment (CFA): a participatory and collaborative process engaged in by members of a community who are interested in exploring their community's food system strengths and issues.

Community Supported Agriculture (CSA): a group of individuals who have contributed dollars or pledged support to one or more local farms prior to the growing season, with growers and consumers sharing the risks and benefits of food production.

CFA Implementation Team: a group of individuals from Middlesex-London who work in the local food system and have come together to help guide the Community Food Assessment process.

Emergency Food Program: refers collectively to emergency meal programs and food banks.

Emergency Meal Program: places that provide free meals to people in need. The meals are prepared by the agency and eaten on site.

Food Bank: places that provide free food and personal hygiene products to people in need. Goods are often non-perishable and are taken home by the individual to be consumed/used at a later time.

Food Desert: "...parts of the country vapid of (i.e. missing) fresh fruit, vegetables, and other healthful whole foods, usually found in impoverished areas. This is largely due to a lack of grocery stores, farmers' markets, and healthy food providers."¹

Food System Asset: a tangible resource that is located along the food system supply chain and held in common by a community, or available to be leveraged by the community towards creating positive food system change. Food system assets can be grouped into the same categories as assets.

Local Food: food that is grown, harvested, or produced in Middlesex-London, or made from ingredients that are grown, harvested, or produced in Middlesex-London.

Local Food System: includes all people, activities and resources needed to feed the people in a given area. This includes everything needed to grow, process, package, distribute, consume and dispose of food. For this assessment, Middlesex-London is the area for our local food system.

Local Sustainable Food System: a sustainable food system provides healthy food to meet current needs while at the same time, keeping the local ecosystem and environment healthy so that food can be provided to future generations.

Food Literacy: a set of skills that help us plan, prepare, and cook meals for ourselves and our families. These skills help us prepare food that is healthy, tasty, and affordable. They can also build our confidence and help us problem solve when working with food.²

Food Procurement: the activities and processes related to the act of obtaining or purchasing food.

Food Security: "When all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life."³

Food Sovereignty: "Food sovereignty is the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems."⁴

¹ Nutrition Digest, "USDA Defines Food Deserts," Vol. 37, No. 4, American Nutrition Association, 2015, Web, at <http://americannutritionassociation.org/category/newsletter-volume/volume-35-no-3>.

² Ontario Society of Nutrition Professionals in Public Health, Food Literacy Flyer, Web. at <http://www.osnpnh.on.ca/upload/membership/document/foodliteracy-flyer-final-ps.pdf>

³ Food and Agriculture Organization of the United Nations, *Rome Declaration on World Food Security and World Food Summit Plan of Action*, November 13, 1996, Web, at <http://www.fao.org/wfs/>.

⁴ International Forum for Food Sovereignty, *Declaration of the Forum for Food Sovereignty, Nyéléni 2007*, February 27, 2007.

Regional Food Hub: “a regional food hub is a business or organization that actively manages the aggregation, distribution, and marketing of source-identified food products primarily from local and regional producers to strengthen their ability to satisfy wholesale, retail, and institutional demand.”⁵

Urban agriculture: growing produce and/or raising animals in urban and peri-urban areas and settings. Urban agriculture is strengthened by complementary activities, such as the processing and distribution of food grown and the sharing of agricultural knowledge and skills with community members.

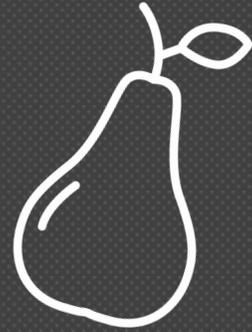
⁵ National Good Food Network, “Food Hub Center: What is a Food Hub?,” Wallace Center, 2009, Web, at <http://www.ngfn.org/resources/food-hubs>.

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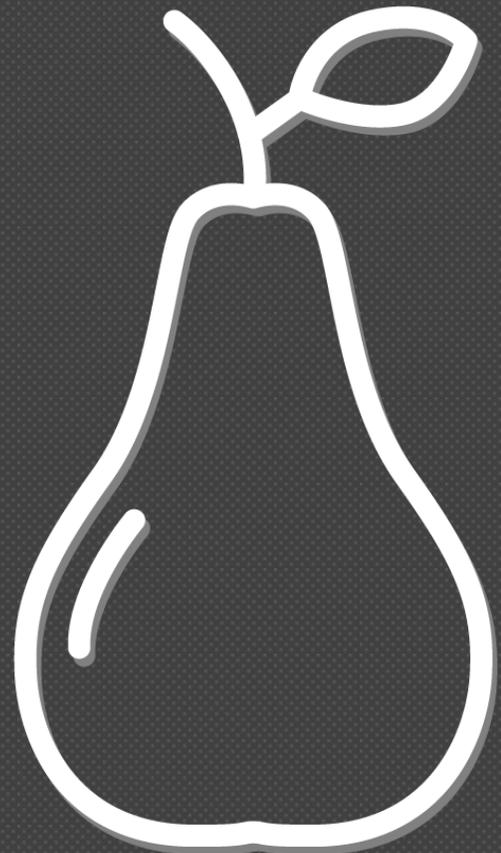
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EXECUTIVE SUMMARY



EXECUTIVE SUMMARY

A community food assessment (CFA) is a participatory and collaborative process engaged in by members of a community who are interested in exploring their area's food system strengths and needs. The purpose of a CFA is to gather the information needed to picture the whole food system, and then to work towards increasing community *food sovereignty* (see below) by using this information to inform decision-making around the policies and practices that define the local food system.

The strategies used to gather the information for a CFA include: *exploring* the resources and assets in a community; *envisioning* what a local, healthy, and sustainable food system could look like; *identifying* food system areas to cultivate; *developing* work plans around priority action items; and then *implementing* action plans that include *measurements* for success.⁶ Community food assessments can result in many benefits to the community, such as greater awareness and understanding of food-related issues, addressing gaps in the community food security system, and boosting sustainability of the community food system.⁷

In February 2014, the Middlesex-London community came together at a community food forum—hosted by the London Community Foundation, City of London, and Middlesex-London Health Unit—to discuss the potential to form a local food policy council. After conducting research into various organizational models for a local food policy council, the community decided that a community food assessment was a natural next step, which would inform future community action planning. In April 2015, the London Food Bank—with the support of the London Community Foundation, City of London, and Middlesex-London Health Unit, initiated a community food assessment process on behalf of the Middlesex-London community. The “Middlesex-London Community Food Assessment Report” is the outcome of this process.

A community is said to be food secure “...when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life.⁸ This definition of food security was built upon three pillars—food availability, food access, and food use; however, the “Five A’s of Food Security,” is one of the most universally accessible understandings of the concept. The five A’s are: availability, accessibility, adequacy, acceptability, and agency (i.e. the policies and processes that enable the achievement of food security).⁹ However, for food security to be realized by a community, community members must be able to control the policies that govern the production and distribution of the food they eat. This is called *food sovereignty*. “Food

⁶ Sue Ross and Zena Simces, *Community Food Assessment Guide*, B.C. Provincial Health Services Authority, March 2008, Print, at p. 5.

⁷ Sue Ross and Zena Simces, *Community Food Assessment Guide*, B.C. Provincial Health Services Authority, March 2008, Print, at p. 6.

⁸ Food and Agriculture Organization of the United Nations, *Rome Declaration on World Food Security and World Food Summit Plan of Action*, November 13, 1996, Web, at <http://www.fao.org/wfs/>.

⁹ Ryerson University, Centre for Studies in Food Security, “The Five A’s of Food Security,” 2016, Web, <http://www.ryerson.ca/foodsecurity/our-approach.html>.

sovereignty is the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems.”¹⁰ Food sovereignty is defined by seven pillars: food for people, building knowledge and skills, working with nature, valuing food providers, localizing food systems, putting control locally, and recognizing food as sacred.¹¹ A community food assessment can help a potential food policy group to make decisions on which pillars should be prioritized and what actions can be taken towards creating a healthier and more sustainable local food system.

The Middlesex-London community food assessment was a participatory and collaborative process that engaged stakeholders from across the food system. The approach used for the CFA allowed for stakeholders to share their vision for Middlesex-London’s food system and work together to on plans for future actions towards achieving this vision. The opportunity to build upon this assessment with the co-construction of a local food policy council grounds the main recommendations below.

The Middlesex-London region is the geographical focus for this community food assessment. This includes eight municipalities—Newbury, Southwest Middlesex, Strathroy-Caradoc, Thames Centre, Middlesex Centre, North Middlesex, Adelaide Metcalfe, and Lucan Biddulph—three First Nations reserves within the census division, and the City of London.

The main objective of the Middlesex-London community food assessment was to develop a comprehensive understanding of the local food system that would inform recommendations for proposed community action. Three phases defined the process used to achieve this objective: a review of existing resources and assets through an environmental scan, participatory research and stakeholder engagement, and the writing of a community food assessment report.

A framework consisting of 10 food system categories, numerous subcategories, and approximately 300 indicators, was used to structure the environmental scan. This framework is further explained below. The environmental scan collected data from a number of different sources, which the Community Food Assessment Implementation Team assisted in collecting.

A number of different activities defined the community engagement process that took place throughout the community food assessment. First, 30 key informant interviews with individuals from the following groups: local food organizations; community development offices; emergency food agencies; municipal and provincial governments; growers and producers; processors and distributors; educators and investors.

¹⁰ International Forum for Food Sovereignty, *Declaration of the Forum for Food Sovereignty*, Nyéléni 2007, February 27, 2007.

¹¹ Food Secure Canada, “What is Food Sovereignty,” 2014, Web, at <http://foodsecurecanada.org/who-we-are/what-food-sovereignty>.

Second, a broad community survey was used to engage 756 members of the community. The survey captured their thoughts on the Middlesex-London food system and determined which areas they felt were most important for food system change. When the scales for the different levels of importance were weighted (where “strongly disagree” is rated the lowest and “strongly agree” is rated the highest) the statements that received the most support from survey respondents follow below.

It is important that,

- Healthy food is affordable for everyone in Middlesex-London;
- Children, youth, and young adults learn about food and the food system;
- Food-related health problems are prevented in Middlesex-London; and
- As local farmers get older, others are supported to start farming.

Third, an interactive co-design session saw 42 community members collaborate on the production of a local food system asset map for Middlesex-London. The asset map was reviewed by 22 community members, who then participated in the development of mini plans for transforming Middlesex-London’s local food system.

The final phase of the community food assessment project involved the writing of the Middlesex-London Community Food Assessment Report, which was submitted to the Middlesex-London Community Food Assessment Implementation Team, and reviewed by several key members of the Steering Committee before being finalized.

The ten food system categories corresponding to the framework mentioned above include the following: population statistics; food production; food access and distribution; food purchasing and consumption; food education, knowledge and literacy; food waste management; food policy and advocacy; risk management and food safety; food innovation and technology; and food funding, finance and investment. These categories defined the scope of the Middlesex-London community food assessment. They are also used to structure this report. Below is a short summary of the information provided in each of the ten categories, including some of the opportunities for change identified during the assessment.

- **Population statistics** provides an overview of who is vulnerable to and affected by food insecurity, the many health issues linked to or resulting from the current food system, and the economic conditions or realities within the area that limit peoples access to healthy food. An opportunity for change within this area is to develop capacity within people to become more food secure by increasing their food literacy skills through education and awareness initiatives, and further then support them by making fresh local food more accessible.
- **Food production** provides an overview of local agriculture in the area, an account of sustainable or alternative food production and activity in local and community-based food

production, which includes smaller-scale, alternative or non-traditional forms of food production. One opportunity for change that was identified is to support small-scale agriculture, including urban agriculture, through working with the existing agricultural community to see knowledge transferred to new farmers and young generations.

- **Food access and distribution** provides an overview of food access points in Middlesex-London, the availability of local food; and an overview of the food distribution system in the area. An opportunity for change identified in the assessment is the building of local food processing and distribution capacity through the development of infrastructure in the middle of the supply chain, such as a food hub or mobile processing solution.
- **Food purchasing and consumption** provides an account of the purchasing behaviour of local, healthy, sustainable food from the standpoint of food service, food retail, public institutions and the general public, an account of general food purchasing behaviour, an overview of the consumption of local food in the area and of eating habits of the general population and by subpopulation. Growing both awareness and knowledge about healthy local food, through food literacy initiatives and marketing campaigns, is one opportunity to create positive change in food purchasing and consumption in Middlesex-London.
- **Food education, knowledge and literacy** provides an overview of the food education work taking place in Middlesex-London, education programs that focus on food education, and public knowledge and opinions about healthy, local and sustainable food in the area. An opportunity for change in this area is to grow food literacy across Middlesex-London amongst children, youth and young adults, both inside and outside the school system.
- **Food waste management** assesses the different types of waste across the food value chain, impacts of this food waste, different types of food waste in Middlesex-London, from producer-to-consumer, initiatives and efforts that have been made to reduce food waste in the local community, and the effectiveness of current efforts to reduce food system waste. One opportunity for change in food waste management in Middlesex-London is to reduce food waste throughout the food system using an approach that sees all stakeholders engaged, and that is supported by policy.
- **Food policy and advocacy** provides an overview of the food policies that currently exist in Middlesex-London, including: policies which support the development of a local sustainable food system, local food policies that have attained council support, and advocacy efforts in the area related to food security, food democracy and/or food sovereignty. Increasing advocacy efforts to challenge policies that do not support the local food system and working towards innovative policy change that support local food system development are complementary opportunities that were identified as part of this assessment.
- **Risk management and food safety** focuses on food safety risk management plans and food safety risks within the local food system as well as aims to identify what food system risk

management plans are in place and the food safety risks associated with these plans. The opportunity for change in this area is to: first, think broadly about risk management and all the factors that affect the availability of safe, nutritious and local food, and then, apply this knowledge to risk management and food safety activity in Middlesex-London.

- **Food innovation and technology** determines the level of innovation within the local food system and identifies initiatives where technology is being developed and utilized to enhance the local sustainable food system, as well as gives an overview of innovative programming. One opportunity for change is to develop and implement a regional brand that showcases the food that is grown, raised, harvested or produced in Middlesex-London.
- **Food funding, finance and investment** provides an overview of the funding available for community-based food system initiatives in Middlesex-London and provides a broad overview of investment, funding and financing options available to food system businesses and projects in the area. Working together to secure resources to support local food businesses and community-based food system activities is a big opportunity for change in this area.

The opportunities for change noted above for each area within the food system framework are samples of the many discovered during the community food assessment process. The opportunities for change are located within specific areas to cultivate in Middlesex-London. A cultivation area is an identifiable area within a local food system where improvement can be made, which can be explored by the community towards creating the change they want to see. In total, 14 areas to cultivate were identified as part of the community food assessment: food literacy, food waste reduction, small-scale agriculture and distribution, local food processing and distribution, young and new farmers, rural-urban connection, emergency food access, food policy, sustainable production, urban agriculture, health and wellness, land protection, food accessibility, and public media campaigning.

During the community action planning stage of the CFA, community members agreed on 4 cultivation areas to plan future action around. A working group assigned to each area then identified 3 potential community-based initiatives to be voted on. Each working group then developed a mini work plan for the top initiatives. Goals or objectives, steps to be taken, needed resources, assets to leverage, and measures of success were all outlined. Below is a list of the four cultivation areas and the top initiative chosen by stakeholders:

- **Food waste reduction:** Conduct an exercise to determine how much food waste there is in Middlesex-London.
- **Food literacy:** Establish a food literacy working group that develops a common food literacy message and filters it out to residents through networks and media to residents.
- **Food processing and distribution:** Enact a municipal policy by-law mandating public institutions to purchase a designated percentage of local food.

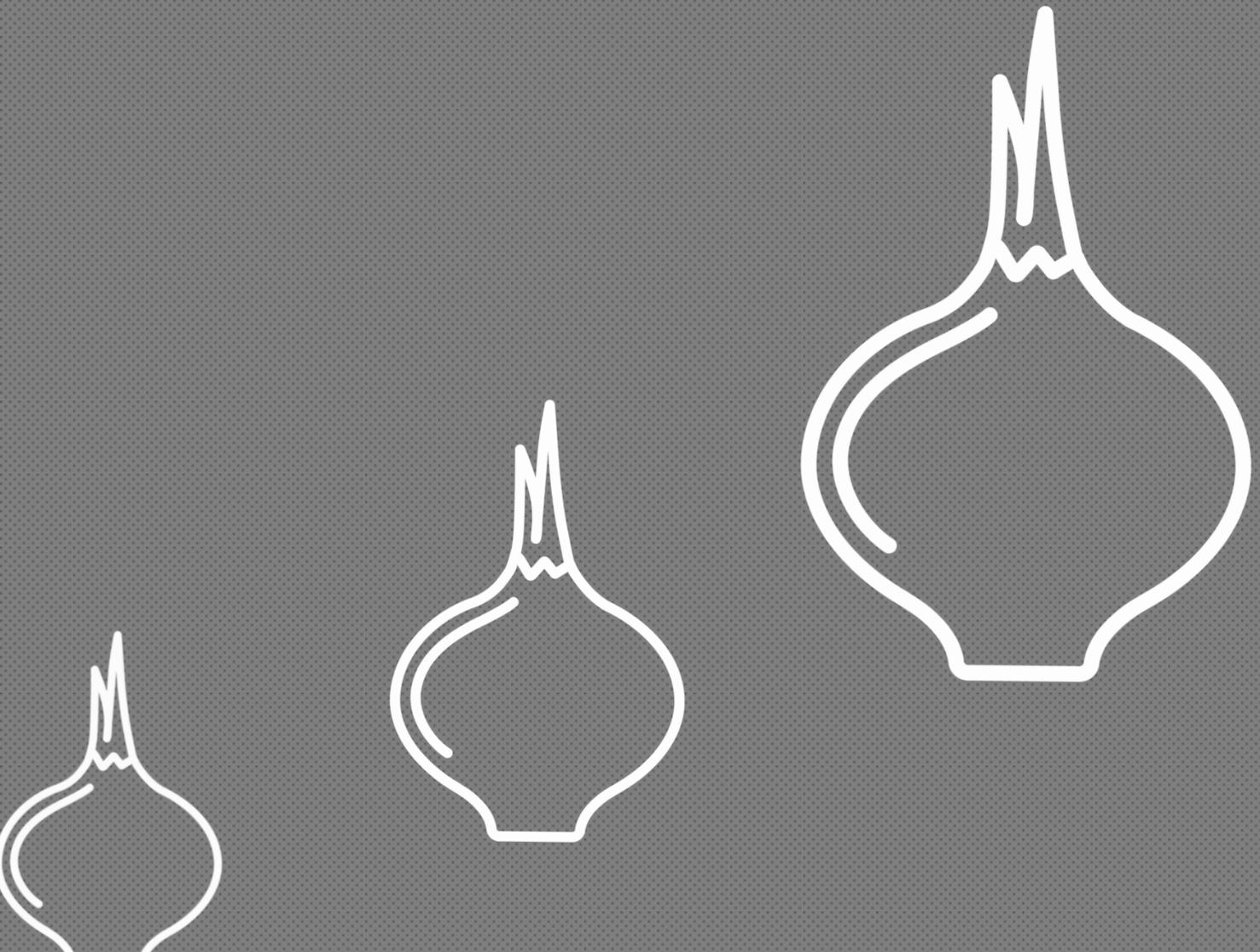
- **Small-scale agriculture production:** Develop a local food hub to manage logistics, and storage.

Many important findings and much analysis is contained in this community food assessment report; 38 specific areas were identified for further research. These areas have been grouped together under the corresponding categories in the food system framework in Section 13.

In addition to conducting research into the areas identified, and further developing the work plans towards implementing direct action, there are a number of initiatives that the community can work on to support a stronger, more sustainable food system. The recommendations provided throughout Sections 2-11 of this report have been combined in a simple chart, found in Section 13. The topics include: innovative food policy; food funding and investment; urban agriculture; supporting farmers; local food procurement; infrastructure development; food waste, community programming; and food literacy. An additional theme has been created for recommendations that do not fall within these themes.

The Middlesex-London Community Food Assessment confirms the following: there is a diversity of food system stakeholders and a breadth of food system activity in the area; the number of cultivation areas and amount of opportunity is great; and the degree of community engagement and local food system momentum is very high. As a result, the overarching recommendation is *for Middlesex-London food system stakeholders to proceed with the establishment of a food policy council*. A food policy council will provide an organized platform to engage stakeholders in an on-going discussion about and decision-making around the most appropriate initiatives and necessary resources required to drive food system change in Middlesex-London.

1.0 INTRODUCTION



1.0 INTRODUCTION

1.1 Background

Food Security

From November 13-17 1996, heads of state and government attended the World Food Summit in Rome, Italy, where they reaffirmed their commitment to ensuring that all people are able to realize their right to be food secure. In the plan of action that was drafted they went on to define food security as existing “...when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life.¹² This definition of food security was built upon three pillars— food availability, food access, and food use—but a fourth pillar, stability, was added at the World Food Summit on Food Security in 2009.¹³ While these four pillars effectively capture the breadth of food security, the “Five A’s of Food Security” remain one of the most universally accessible breakdown’s of the concept.

The five A’s of food security:

- **Availability:** Sufficient food for all people at all times.
- **Accessibility:** Physical and economic access to food for all at all times.
- **Adequacy:** Access to food that is nutritious and safe, and produced in environmentally sustainable ways.
- **Acceptability:** Access to culturally acceptable food, which is produced and obtained in ways that do not compromise people’s dignity, self-respect, or human rights.
- **Agency:** The policies and processes that enable the achievement of food security.¹⁴

Food insecurity can be experienced at the individual level but it can also be experienced at the household, community, regional, national, and global levels. Therefore, when considering food security, it is important to think beyond the individual, and to consider the complex and systemic issues that affect groups of people at each of these levels. However, if the five A’s of food security can be achieved for all people, at all times, in a community for example, then this community is said to be food secure. For community food security to be realized, though, the community must first be able to exercise democratic control over the policies that govern the production and distribution of the food that its members consume. This is called *food sovereignty*.

¹² Food and Agriculture Organization of the United Nations, *Rome Declaration on World Food Security and World Food Summit Plan of Action*, November 13, 1996, Web, at <http://www.fao.org/wfs/>.

¹³ Food and Agriculture Organization of the United Nations, *Declaration of the World Food Summit on Food Security*, November 2009.

¹⁴ Ryerson University, Centre for Studies in Food Security, “The Five A’s of Food Security,” 2016, Web, <http://www.ryerson.ca/foodsecurity/our-approach.html>.

Food Sovereignty

On 27 February 2007, 500 food system stakeholders from over 80 countries gathered in the village of Nyéléni, in Sélingué, Mali, for an international forum on food sovereignty. There, the Declaration of Nyéléni was adopted and the idea of food sovereignty was entrenched into a global movement. The declaration states: “Food sovereignty is the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems.”¹⁵ Six pillars for food sovereignty were developed at the international forum in Nyéléni. Food Secure Canada’s (FSC) summary of these pillars follows below, in addition to a seventh pillar, which was added by members of FSC’s Indigenous Circle during the development of its policy platform, which has food sovereignty at its core.¹⁶

The seven pillars of food sovereignty:

- Focuses on Food for People
 - Puts people’s need for food at the centre of policies
 - Insists that food is more than just a commodity
- Builds Knowledge and Skills
 - Builds on traditional knowledge
 - Uses research to support and pass this knowledge to future generations
 - Rejects technologies that undermine or contaminate local food systems
- Works with Nature
 - Optimizes the contributions of ecosystems
 - Improves resilience
- Values Food Providers
 - Supports sustainable livelihoods
 - Respects the work of all food providers
- Localizes Food Systems
 - Reduces distance between food providers and consumers
 - Rejects dumping and inappropriate food aid
- Puts Control Locally
 - Places control in the hands of local food providers
 - Recognizes the need to inhabit and to share territories
 - Rejects the privatization of natural resources
- Food is Sacred
 - Recognizes that food is a gift of life, and not to be squandered
 - Asserts that food cannot be commodified; (that is, treated as a product that can be bought and sold)

¹⁵ International Forum for Food Sovereignty, *Declaration of the Forum for Food Sovereignty, Nyéléni 2007*, February 27, 2007.

¹⁶ Food Secure Canada, “What is Food Sovereignty,” 2014, Web, at <http://foodsecurecanada.org/who-we-are/what-food-sovereignty>.

If food security is a part of the vision for any community, then this community will need to prioritize the seven pillars of food sovereignty in its decision-making on and community action around food and agriculture. Only then will it develop the capacity to democratize and govern its local food system. The formation of a food policy group is one way that communities are able to mobilize around the goal of increasing their food sovereignty. Food policy groups are a platform for connecting a diversity of food system stakeholders in a community around food issues affecting their community. They may be structured as a council, collaborative, steering committee, working group, partnership, network, or team. Whatever shape they may take, food policy groups are most often involved with innovative food policy research, planning and development as well as direct community action around changes in their local food system that they would like to see. In Ontario, there are at least 28 food policy groups spread across the province. Sustain Ontario’s Municipal/Regional Food Policy Working Group has put together a comprehensive list (see below Table 1) of these food policy groups in Ontario, and the map below (Figure 1) shows where these food policy groups are located.

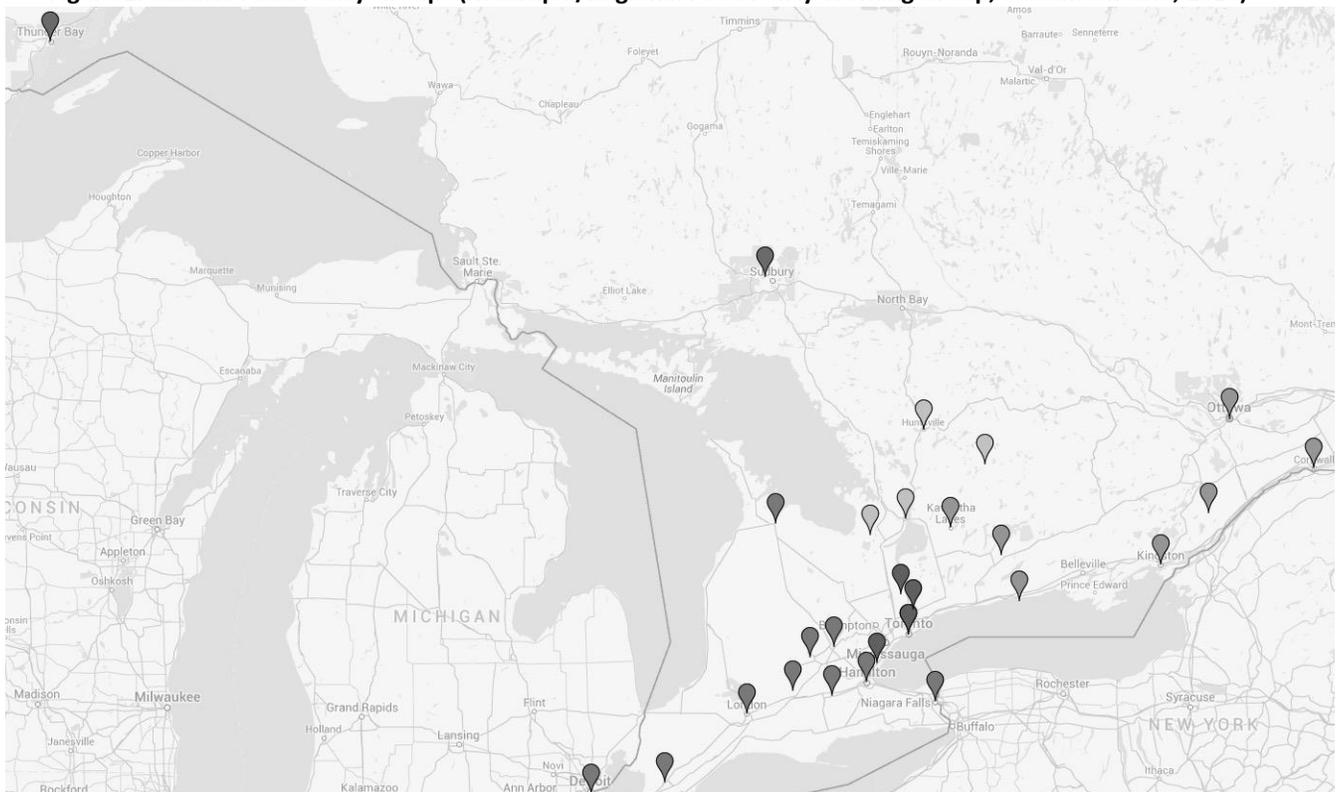
Table 1: Ontario Food Policy Groups by Region (Municipal/Regional Food Policy Working Group, Sustain Ontario, 2015).

Central Ontario
Food Partners Alliance Simcoe County
Growing Orillia’s Food Future!
Harvest Haliburton
Food Security Working Group (Huntsville)
Eastern Ontario
Foodcore Leeds Grenville Lanark Food Charter Partnership
All Things Food – Bouffe 360
Ottawa Food Policy Council
City of Kawartha Lakes Agricultural Development Advisory Board/Kawartha Lakes Food Charter Working Group
Food Policy Council for Kingston, Frontenac, Lennox & Addington
Peterborough Community Food Network
Sustainable Peterborough Working Group on Food and Farming
Northumberland County Food Policy Committee
Greater Toronto Area
The Halton Food Council
Markham Sustainability (Food for Change)
Toronto Food Policy Council
Toronto Youth Food Policy Council
Northern Ontario
Greater Sudbury Food Policy Council
Thunder Bay and Area Food Strategy

Southwestern Ontario
Chatham-Kent Food Policy Council
Waterloo Region Food System Roundtable
Brant Food System Coalition
Food Matters Windsor Essex County
Middlesex-London Community Food Assessment Implementation Team
Food Secure Oxford
City of Hamilton Community Food Security Stakeholder Committee
Healthy Eating Workgroup (Niagara)
Guelph-Wellington Food Round Table
Grey Bruce Food Security Action Group

A community food assessment is a strategic way for a potential food policy group to narrow down which food sovereignty pillars need to be prioritized and what actions need to be taken towards creating a healthier and more sustainable food system. In other words, a community food assessment, according to Steven McFadden, is one way to help build community control of food, and this is what food sovereignty is all about.¹⁷

Figure 1: Ontario Food Policy Groups (Municipal/Regional Food Policy Working Group, Sustain Ontario, 2015)



¹⁷ Steven McFadden, *The Call of the Land – An Agrarian Primer for the 21st Century*, 2nd Ed., NorLightsPress.com, 2011, Print, at p.107.

Community Food Assessment (CFA)

A community food assessment is a participatory and collaborative process engaged in by members of a community who are interested in exploring their area's food system strengths and needs. The goal of a community food assessment is to increase community food sovereignty by informing decision-making around the policies and practices that define the local food system. Community food assessment objectives are to identify areas in the local food system to cultivate, resources to leverage, and actions to take that will help the community to become more food secure.

A number of broad strategies define a community food assessment. These strategies include: *exploring* the resources and assets in a community; *envisioning* what a local, healthy, and sustainable food system could look like, *identifying* food system areas to cultivate and *developing* work plans around priority action items; and then *implementing* action plans that include *measurements* for success.¹⁸

Ultimately, a community food assessment will inform decision-making on the policies and practices that define a community's local food system. Community food assessments can result in many benefits to the community. Some of these benefits include:

- Improved program development and coordination
- Positive change in public policy affecting the food system
- Greater awareness and understanding of food-related issues
- Development of new and stronger networks and partnerships
- Increased community participation in shaping the food system
- Addressing gaps in the community food security system
- Enhancing community capacity
- Boosting sustainability of the community food system.¹⁹

Middlesex-London Community Food Assessment Timeline

Prior to Eco-Ethnomics Inc. being engaged to facilitate a community food assessment and prepare a community food assessment report, a group of motivated community associations and groups led a project to discover what a local food policy council might look like. The key milestones were:

¹⁸ Sue Ross and Zena Simces, *Community Food Assessment Guide*, B.C. Provincial Health Services Authority, March 2008, Print, at p. 5.

¹⁹ Sue Ross and Zena Simces, *Community Food Assessment Guide*, B.C. Provincial Health Services Authority, March 2008, Print, at p. 6.

2014

- First Community Food Forum: in February, the London Community Foundation, City of London, and Middlesex-London Health Unit hosted a community food forum to discuss the potential for a local food policy council.
 - With unanimous support a small task force was struck to explore the potential structure for a food policy council
- Food Policy Council Model SWOT Analysis: the task force conducted a strengths, weaknesses, opportunities, and threats analysis of four organizational models for a future food policy council.
 - The models reviewed included: municipality/health unit seated-structure, community-seated structure (not-for-profit), community-seated structure (grassroots), and collaborative partnership.
- Second Community Food Forum: in October, a second community forum takes place to discuss the development, framework, and activities for a future food policy council.
 - Attendees of the forum unanimously support a collaborative partnership model for a future food policy council. This model will be co-led by two community organizations: The London Food Bank and the Middlesex-London Health Unit
 - A community food assessment is recommended as the next step for the community, and it is decided that a community food assessment implementation team would be created to lead this.

2015

- CFA Implementation Team: a community food assessment implementation team is created. Members of the CFA Implementation Team include a diversity of food system stakeholders.
- Community Food Assessment: in April, on behalf of the Middlesex-London CFA Implementation Team, with the support of the London Community Foundation, City of London, and Middlesex-London Health Unit, the London Food Bank engages Eco-Ethonomics Inc. to conduct a community food assessment and prepare a community food assessment report
 - From July-November, Eco-Ethonomics Inc. conducts community-based research, including an environmental scan, key informant interviews, and a community survey
 - In December, the Middlesex-London community and food system stakeholders participate in an Asset Mapping session and an Action Planning session, to identify strengths and areas to cultivate across the local food system, and action items for consideration by a future food policy council.

2016

- Community Food Assessment Report: The Middlesex-London Community Food Assessment report is completed and will be used to inform future community action planning.

Community Food Assessment Implementation Team

In early 2015 a Community Food Assessment Implementation Team was established. This implementation team is responsible for leading the community food assessment. The Implementation Team (see Table 2) is made up of members of key food system stakeholder organizations in Middlesex-London.

Table 2: Community Food Assessment Implementation Team

Name	Affiliate Organization
Heather Blackwell	Western Fair District
Jamie Chowns	Sisters of St. Joseph of London
Michael Clark	Old East Village BIA
Mary Ann Colihan	Writer and local food advocate
Karen Eatwell	National Farmers Union
Cara A. Finn	Middlesex County
Ellen Lakusiak	Middlesex-London Health Unit
Don McLeod	Transition London Ontario
Margaret Milczarek	Community volunteer
Martha Powell	London Community Foundation
Jane Roy	London Food Bank
Tom Schell	Centre for Sustainable Food Systems
Cheryl Smith	City of London
Gary Zavitz	Fanshawe College

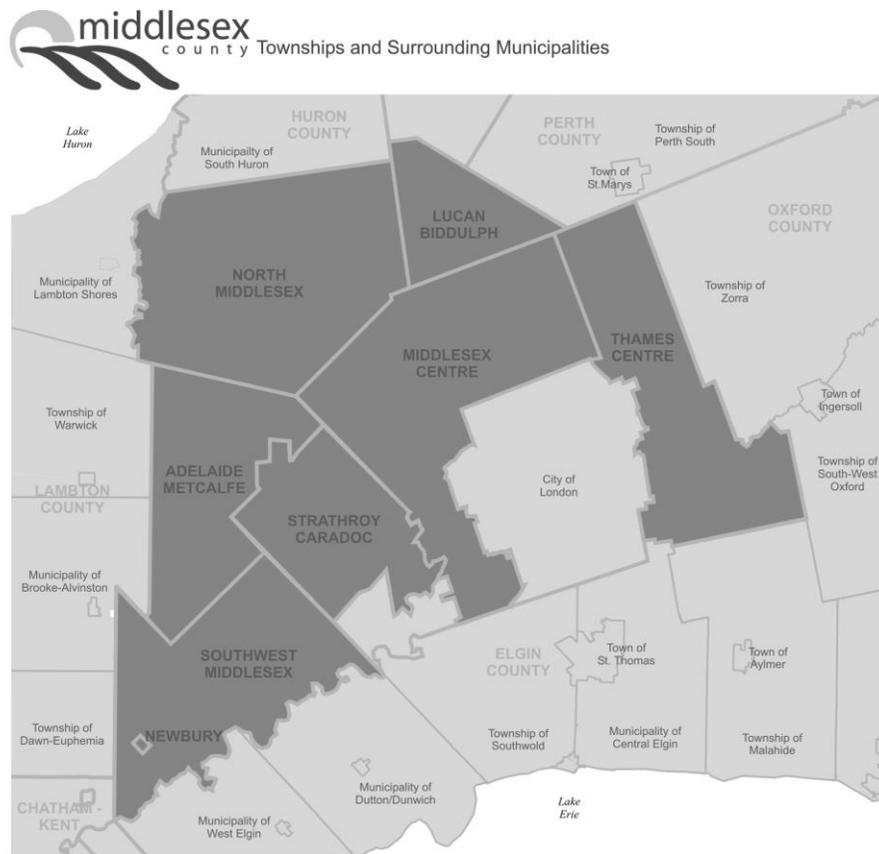
Context

The Middlesex-London region is the geographical focus for this community food assessment. When Middlesex-London is referred to throughout this report, the entire geographical area of Middlesex County, including the three First Nations reserves within the census division and the City of London, is the focus. When London is referred to, the area of focus is the City of London. Finally, when Middlesex County is referred to all municipalities and reserves but not the City of London are the area of focus (see Table 3). Figure 2 shows the various geographical areas within Middlesex-London.

Table 3: Municipalities and Reserves in Middlesex County

Municipality	Reserve
Newbury	Chippewas of the Thames 42
Southwest Middlesex	Munsee-Delaware 1
Strathroy-Caradoc	Oneida 41
Thames Centre	
Middlesex Centre	
North Middlesex	
Adelaide Metcalfe	
Lucan Biddulph	

Figure 2: Map of Municipalities Within Middlesex-London (Source: Middlesex County, 2015)



The Middlesex-London Community Food Assessment is taking place at an opportune time for local food system support and food policy development in Canada.

In 2013, Royal Assent was given to Bill 36, the Government of Ontario’s *Local Food Act*, which has the following as its purposes:

1. To foster successful and resilient local food economies and systems throughout Ontario.
2. To increase awareness of local food in Ontario, including the diversity of local food.

3. To encourage the development of new markets for local food.²⁰

More recently, in a number of his ministerial mandate letters, Prime Minister Justin Trudeau outlines specific Ministry goals, expectations, commitments, and responsibilities that relate directly to food and food systems. Most notably is the letter to Minister of Agriculture and Agri-Food, the Honourable Lawrence MacAulay. In this letter, Prime Minister Trudeau writes:

In particular, I will expect you to work with your colleagues and through established legislative, regulatory, and Cabinet processes to deliver on your top priorities: Develop a food policy that promotes healthy living and safe food by putting more healthy, high-quality food, produced by Canadian ranchers and farmers, on the tables of families across the country....²¹

1.2 Methodology

Project Goal & Objectives

The goal for the Middlesex-London Community Food Assessment project was to, first, develop an understanding of the Middlesex-London food system, and then second, allow this understanding to inform recommendations for proposed community action towards increasing food sovereignty and greater community food security in the region.

The objectives related to this goal included:

- Producing a snapshot of the Middlesex-London food system using diverse data points that can inform the focus of future community action planning;
- Identifying strengths and assets in the local food system and gaps in knowledge for future research;
- Engaging the broader community to create a better understanding of the local food system, from farm-to-waste;
- Amplifying grassroots organizations voices, and engaging in meaningful conversations with stakeholders about the local food system;
- Highlighting priority areas for the community to cultivate (i.e. opportunities for change) that will leverage the area's strengths and assets;
- Working towards a common understanding of issues affecting the Middlesex-London food system to share with key decision-makers;
- Recognizing key stakeholders who want to engage in food system change, and building capacity and leadership for including in future food policy council members; and

²⁰ Government of Ontario, *Local Food Act, 2013*, S.O 2013, Chapter 7, Web, at <http://www.ontario.ca/laws/statute/13l07>.

²¹ Rt. Hon. Justin Trudeau, "Minister of Agriculture and Agri-Food Mandate Letter," November 2015, Web, at <http://pm.gc.ca/eng/minister-agriculture-and-agri-food-mandate-letter>.

- Providing essential background information for media and public education about the Middlesex-London food system.



Three phases defined the process used to achieve these objectives. These include: a review of existing resources and assets (Environmental Scan), participatory research and stakeholder engagement (Community Engagement), and the writing of a community food assessment report (Report Writing). A description of these three phases, and their related activities follows below.

Figure 3: Food System Framework



Environmental Scan

The initial phase for the community food assessment project involved the review of all relevant historical documents and previous food system scans or consultation processes (within the last 5-10 years). This was followed by the development of a food system framework (see Figure 3), which was used to structure an environmental scan and data collection of existing resources and data on the Middlesex-London food system. The framework consisted of 10 main categories, many subcategories, and approximately 300 indicators (i.e. relevant pieces of information).

With the assistance of the Community Food Assessment Implementation Team, the environmental scan collected data from a breadth of different sources. The secondary research phase concluded with an analysis of the food system based on all the relevant secondary source information. During analysis specific assets and strengths were identified, along with gaps in information and strategies for collecting additional information. The assets that were identified were categorized by asset type.

There are seven different types of assets that can be found in the food system. An explanation of each asset type, along with the icon used throughout this report to identify it and some examples, is provided in the below asset legend.

ASSET LEGEND			
Icon	Asset Type	Explanation	Examples
	Living	What you grow and your natural environment	Bacteria, soil, water, natural resources, animals
	Material	What you own and what you use	Buildings, vehicles, equipment
	Cultural & Spiritual	What you do and what you believe	Traditions, rituals, festivals, holidays
	Intellectual	What you know and ideas you have	Knowledge, ideas, innovations

ASSET LEGEND			
Icon	Asset Type	Explanation	Examples
	Experiential	Things you learn and risks you take	Success, failure, wisdom, embodied experience
	Financial	How much you have and what you spend	Money, credit, grants
	Social & Political	Who you know and who you trust	Friends, relationships, groups, influences

Community Engagement

The community engagement phase consisted of primary research and stakeholder engagement activities, and was broken down into four activities: key informant interviews, a community survey, and two community engagement sessions (i.e. community asset mapping and community action planning).

Key Informant Interview

The consulting team reached out to 69 key informants with knowledge of the Middlesex-London food system, including individuals from local food organizations, community development offices, emergency food suppliers, and municipal and provincial governments, as well as growers and producers, processors and distributors, educators and investors. In total, 30 individuals were engaged in hour-long interviews about the local food system and focused on:

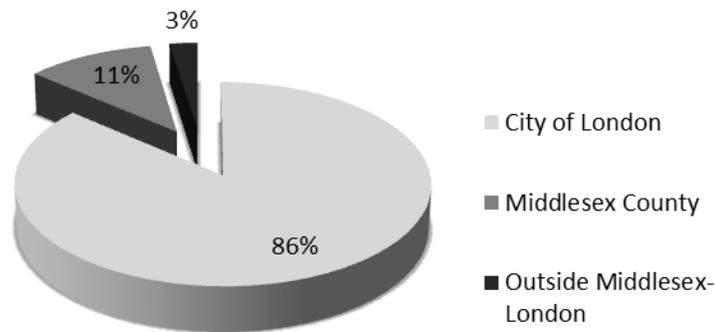
- Strengths and assets in the Middlesex-London food system;
- Major problems and/or challenges in the local food system;
- Solutions to these problems and/or challenges;
- Key opportunities in the food system and the potential contribution of stakeholders to the changes they want to see; and
- Gaps in information.

Numerous gaps in information were identified in the environmental scan. These gaps were brought up during each interview to see if interviewees had additional information they could share.

Community Survey

Residents of Middlesex-London were engaged through an online community survey. Residents were able to complete the survey online, or through paper copies provided through local libraries. To encourage participation in the community survey, members of the Community Food Assessment Implementation Team reached out to their local networks, and provided them with a link to the survey in order to further distribution using their social media, newsletters, e-bulletins, and email. The survey was launched on the MLHU website on October 19th, 2015 and closed on November 3rd, 2015. To be eligible to complete the survey, respondents had to be 18 years of age or older and be a resident of London or Middlesex County. For completing the survey, each respondent received the chance to win Harvest Bucks (see section 4.0).

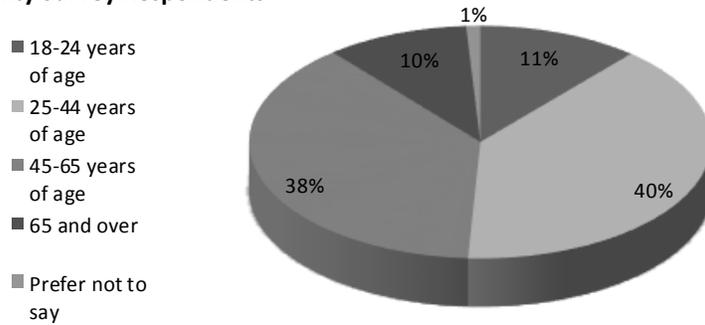
Figure 4: Community Survey Responds by Place of Residence



In total, 779 people completed the community survey and of this total, 97.55% (756 respondents) were residents of Middlesex-London. Overall, the survey sample was representative of the Middlesex-London population. As with many community surveys, there were some slight differences between sample characteristics and population characteristics. These differences are highlighted in the below figures and analysis of demographic data.

Of the 756 respondents who live in Middlesex-London, 86% are residents of London and 11% are residents of Middlesex County. Looking at the region as a whole, Middlesex County accounts for approximately 20% of the population, and only 11% of survey respondents; therefore, Middlesex County residents are slightly underrepresented in the survey sample.

Figure 5: Age of Community Survey Respondents



The age of survey respondents is consistent with the age demographics accounted for in the London Census Metropolitan Area (CMA), as per the 2011 Census.²² The 2011 Census reflects a population breakdown of 12.85% of people between the ages of 18 and 24, 32.58% of people between the ages of 25 and 44, 35.69% of people between the ages of 45 and 64, and 18.85% of people between the ages of 65 and over.

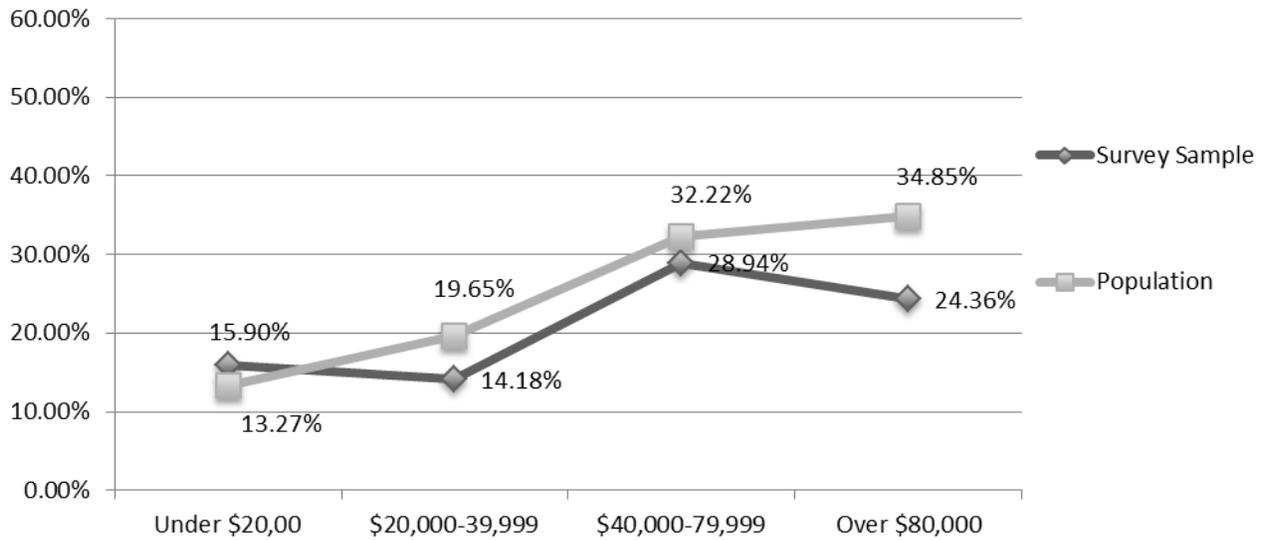
On the whole, the community survey sample is also consistent with population statistics in regards to household income; however, it should be noted that community survey respondents with a household income of \$80,000 or more are underrepresented by 10% when compared to population statistics.

Finally, residents of Middlesex-London (18 years of age and older) reflect a relatively even distribution between males (48%, 179,895 males) and females (52%, 197,155 females). In contrast, survey respondents were predominantly female (79.14%); therefore, males are underrepresented in the survey respondents (18.86% of respondents). An overrepresentation of women in matters related to food system work is consistent with studies finding that women tend to be more involved in the food movement, particularly in the area of food justice.²³

²² Statistics Canada, "London Ontario CMA Profile," 2011, Web, <http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/details/page.cfm?Lang=E&Geo1=CMA&Code1=555&Geo2=PR&Code2=35&Data=Count&SearchText=london&SearchType=Begins&SearchPR=01&B1=All&Custom=&TABID=1>.

²³ Psyche Williams-Forsen & Carole Counihan, Eds., *Taking Food Public: Redefining Foodways in a Changing World*, Routledge, 2011, Print, at p. 30; Janet Page-Reeves, *Women Redefining the Experience of Food Insecurity: Life Off the Edge of the Table*, 2014, Print, at p. 264.

Figure 6: Household Income of Middlesex-London Residents 18 Years of Age and Older



Community Asset Mapping

The primary objective of this interactive and participatory session was to co-design a local food system asset map for Middlesex-London. In total, 42 community members participated in this session. They not only contributed to the process of grouping together food system assets identified in the region but also engaged in small group work to identify additional strengths and assets. With the strengths of the region identified and arranged, everyone contributed to the design of a large format asset map that connected the assets to areas of the local food system. This visualization exercise was followed by a reflection on and discussion about the Middlesex-London food system and what initiatives can build on its strengths and assets. The session ended with participants working together to identify action items that would leverage assets in the local food system.

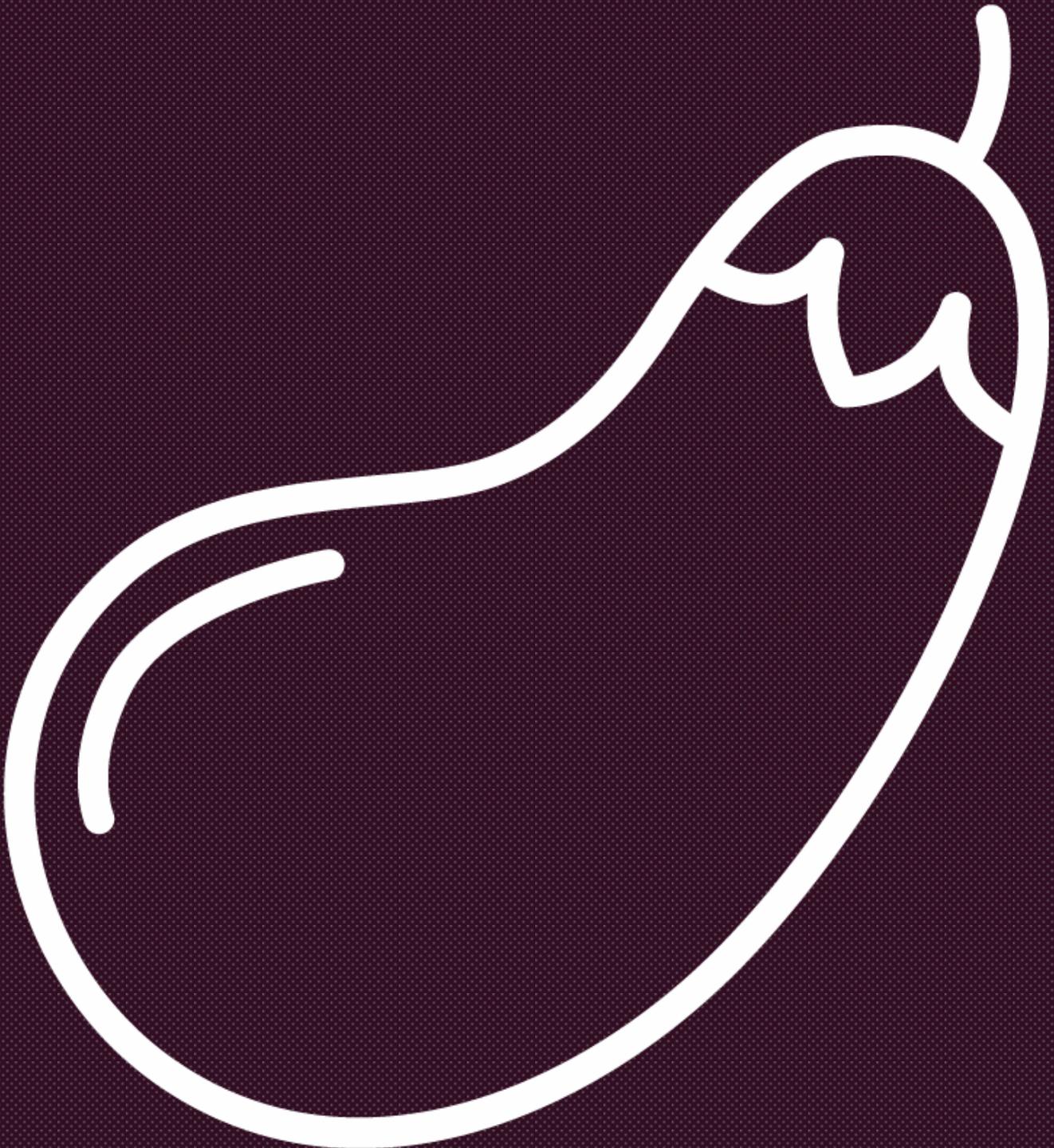
Community Action Planning

The community action planning session, which followed directly after the asset mapping session, saw 22 key community members and leaders come together to build upon the preceding session. The primary objective of this interactive and participatory session was to co-design and vote on start-up, mini work plans for transforming the Middlesex-London community food system. After identifying areas to cultivate the food system, participants voted on 6 priority areas and then worked together to identify initiatives in each area that leverage assets in the region. After voting on initiatives in each cultivation area, participants worked on a mini work plans for each of 4 initiatives. These work plans, all of which will form the starting point for community action planning in the future were presented to a mock food policy council.

Report Writing

The final phase of the community food assessment project involved the writing of this Middlesex-London Community Food Assessment Report. The report was submitted to the Middlesex-London Community Food Assessment Implementation Team and reviewed by several key members of the Steering Committee. Comments were gathered from the Committee members and revisions were made to the current document based on the feedback provided.

2.0 POPULATION



2.0 POPULATION

2.1 Findings

Population statistics allow one to examine who lives in the area we are studying, what their backgrounds are, and introduces us to how populations may be affected by the determinants of food security. This section examines data pertaining to the population of Middlesex-London and compares it, when available, to: London, Middlesex, Ontario and Canada.

Specifically, this section of the environmental scan examines demographic data to:

- Provide an overview of populations that are vulnerable to and affected by food insecurity;
- Provide an overview of the many negative population health issues linked to or resulting from the current food system; and
- Provide an overview of the economic conditions/realities within the area, which limit the access to and affordability of healthy food.

Demographics Related to Food Security

In 2014/2015, the population of Middlesex-London was 459,821 of which Middlesex County accounted for 76,004 residents and London 383,817 residents.²⁴ According to Statistics Canada, London Middlesex is substantially more population dense, with London denser still, as an urban region, than Ontario as a whole.

Table 4: Population Density and Distribution (Source: Statistics Canada, 2011)

Population (density and distribution)	Canada	Ontario	Middlesex-London	London
Density (people per km ²)	3.7	14.1	132.4	870.6

According to Statistics Canada, Middlesex-London is in line with Canada and Ontario with approximately 15% of persons being older than 65.

In Ontario, 2.3% of the population identify as having Aboriginal identity, while in Middlesex-London 3.3% of the population do. This is a substantial increase in proportion.

In regards to the number of recent immigrants, from 2006-2011 Middlesex-London saw a total of 11,905 immigrants to the area (this represents 13.58% of the total immigrant population in Middlesex-London). Middlesex-London's population consists of 18.76% immigrants, Ontario's

²⁴ Invest in Middlesex County, "Population, Projections & Age," Manifold Data Mining Inc., "Superdemographics," 2014/2015, Web, at <http://www.county.middlesex.on.ca/data-centre/demographics-trends/population-projections-age-income>.

population consists of 28.5% immigrants, and Canada’s consists of 20.6% immigrants. Middlesex-London has approximately 10% less of the total population consisting of immigrant populations compared to Ontario, but has relatively the same percentage as Canada.²⁵

In Middlesex-London the number of lone parent households is in line with Canada and Ontario, as is the distribution of female versus male single parent households.²⁶ In 2011, Middlesex-London had 18,605 lone parent households of which a female parent led 15,175 households and 3,430 households were led by male parents.

Table 5: Household Total Annual Income (Source: National Household Survey, 2011)

Household total annual income	Canada	Ontario	Middlesex-London	London
Average	\$79,102	\$85,772	\$74,765	\$73,107
Median	\$61,072	\$66,358	\$57,987	\$56,241

Middlesex-London has slightly fewer low-income families than the rest of Ontario and Canada. Middlesex-London is less than Canada and Ontario by 1% in low-income families, with 10.4% of low-income families. When the income of individuals is analyzed, 54,325 people in Middlesex-London have low incomes based on the after-tax low-income measure (49,080 between the ages of 18-64 and 5,245 65 years of age and above). This represents a total of 24.1% of the Middlesex-London population in 2010.²⁷ When London is studied separate from Middlesex County, London Census Metropolitan Area’s low-income rate is increasing more than Ontario’s and the proportion of the population living with income below the Low Income Cut Off (LICO) has been increasing since 2006 (LICO estimates the “...Income threshold at which families are expected to spend 20 percentage points more than the average family on food, shelter and clothing” leaving them in strained circumstances)²⁸. In 2012, 14.8% of Londoners lived with an income below the after tax LICO, compared to 11.3% of people in Ontario.²⁹ Middlesex-London has a smaller average and median income compared to Canada, and a significantly reduced income compared to Ontario as a whole, as much as 14% less.³⁰

Although officially the number of homeless people in Middlesex-London is not known, there is some data that can help us to understand the magnitude of this social problem within the local area. A study in 2003 showed that shelters in London serve approximately 4,000 persons in a year.³¹ In 2010 this number grew to 12,000 individuals per year accessing the shelter system³²

²⁵ Statistics Canada, *National Household Survey, 2011*, Data Request.

²⁶ Statistics Canada, *National Household Survey, 2011*, Data Request.

²⁷ Statistics Canada, *National Household Survey, 2011*, Data Request.

²⁸ Statistics Canada, *Low Income Lines, 2013-2014*, Catalogue no. 75F0002, 2015, Web, at <http://www.statcan.gc.ca/pub/75f0002m/2015001/lico-sfr-eng.htm>

²⁹ Child & Youth Network, *Poverty Trends in London*, 2015, Web, at p. 9.

³⁰ Statistics Canada, *National Household Survey, 2011*, Data Request.

³¹ Abe Oudshoorn, “How Many are Homeless?,” 2010, Web, at <http://abeoudshoorn.com/blog/?p=35>

(however, only a portion of those who are homeless access shelters, so the number of homeless people is much higher than what shelter visits indicate). The City of London has 600 shelter beds in total, and the London InterCommunity Health Centre’s “Health Outreach for People who are Homeless” program has well over 1,000 clients.³³ 2013 data shows that an additional 23,710 households are living in core housing need (i.e. housing that is not adequate in condition, not suitable in size, and/or not affordable).³⁴

Healthy Weight & Nutrition

This section of the environmental scan focuses on demographic data related to healthy weight and nutrition. The statistics help us to understand the current state of health issues, and the many influences from the current food system.

Middlesex-London has a similar prevalence of dietary-related disease as Ontario. Middlesex-London has slightly lower heart disease rates and slightly higher blood pressure rates compared to the province as a whole, whereas diabetes rates are on par with the province.³⁵

Table 6: Self-Reported Prevalence of Dietary-Related Disease (Source: Public Health Ontario Snapshot, 2012)

Self-reported prevalence of dietary-related disease	Ontario	Middlesex-London
Diabetes	5.60%	5.50%
Heart disease	4.20%	3.70%
High blood pressure	14.70%	15.40%

Middlesex-London is also typical of Ontario with rates of mortality related to the following dietary-related diseases (according to the Public Health Ontario Snapshot, 2011):³⁶ diabetes, cardiovascular disease, ischemic heart disease, cerebrovascular disease and stroke. While Middlesex County is typical in its rates of heart disease as a leading cause of death compared to Canada, 5% less of London residents die from heart disease than in Middlesex County. The leading cause of death in Canada is cancer (30% of deaths) whereas, in Middlesex County and London it is heart disease (19.2% and 14.8% respectively). In Canada, 19.7% of deaths are attributable to heart disease.³⁷

³² The Homeless Hub, “Community Profiles, London, Ontario,” 2013, Web, at <http://homelesshub.ca/community-profiles/ontario/london>

³³ London Community Foundation, “Confronting Homelessness in London, Ontario,” 2010, Web, at <http://www.lcf.on.ca/blog/confronting-homelessness-london-ontario>

³⁴ The Homeless Hub, “Community Profiles, London, Ontario,” 2013, Web, at <http://homelesshub.ca/community-profiles/ontario/london>

³⁵ Public Health Ontario Snapshot, 2012, Web, at <https://www.publichealthontario.ca/en/DataAndAnalytics/Snapshots/Pages/default.aspx>

³⁶ Public Health Ontario Snapshot, 2012, Web, at <https://www.publichealthontario.ca/en/DataAndAnalytics/Snapshots/Pages/default.aspx>

³⁷ Public Health Ontario Snapshot, 2012, Web, at <https://www.publichealthontario.ca/en/DataAndAnalytics/Snapshots/Pages/default.aspx>

Middlesex-London is in line with Canada and Ontario with its rates of obesity according to the Canadian Community Health Survey. Generally, obesity rates are slightly higher for youth and lower for adults. Middlesex-London has a slightly higher youth obesity rate at 26.4% than Canada (3% higher than Canada), but a slightly reduced adult obesity rate at 19.1% (the Canadian adult obesity rate is 24.8%).³⁸ The prevalence of obesity in Ontario does not differ much from the national average.³⁹ Having organized physical activity and healthy food available to all residents of Middlesex-London could increase the number of residents living healthy lifestyles. Often, organized physical activity is expensive so it's important to have free or low cost options available. Community gardens achieve both of these goals, as people are required to be physically active as they tend to the garden and then also gain access to fresh fruits and vegetables.

Middlesex-London and Ontario both have a similar percentage of low birth weight (6%) according to Ontario Inpatient Discharges Data.⁴⁰

Education, Employment & Local Economy

In order to understand those who reside in Middlesex-London, we must also examine their level of education, employment, and the local economy.

In regards to education level, London is generally typical of Canada and Ontario in its level of education, while Middlesex tends to have a lower population of those with a university education or higher. Middlesex has a higher proportion of people in apprenticeships and receiving a college education, as well as, higher proportions of those with no certificate or diploma and high school education.⁴¹ The table below shows the education levels of those in Middlesex, London, Ontario, and Canada.

Table 7: Percentage of Population by Education Level (Source: National Household Survey, 2011)

Percentage of population aged 15 years and over by highest certificate, diploma or degree	Canada	Ontario	Middlesex -London	London	Middlesex
Total population aged 15 years and over	81%	81%	82%	82%	80%
No certificate, diploma or degree	16%	15%	14%	14%	17%
High school diploma or equivalent	21%	22%	23%	23%	24%
Postsecondary certificate, diploma or degree	44%	44%	44%	46%	39%

³⁸ Public Health Ontario Snapshot, 2012, Web, at <https://www.publichealthontario.ca/en/DataAndAnalytics/Snapshots/Pages/default.aspx>; Statistics Canada, "Health at a Glance: Adjusting the Scales: Obesity in the Canadian Population After Correcting for Respondent Bias," 2012, Web, at <http://www.statcan.gc.ca/pub/82-624-x/2014001/article/11922-eng.htm>.

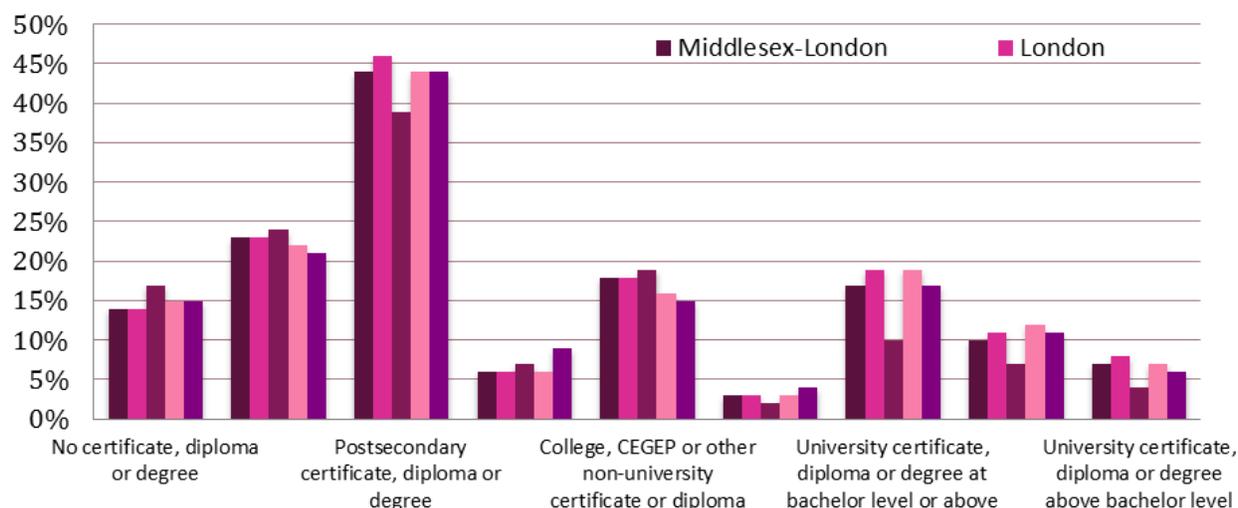
³⁹ Statistics Canada, "Health at a Glance: Adjusting the Scales: Obesity in the Canadian Population After Correcting for Respondent Bias," 2012, Web, at <http://www.statcan.gc.ca/pub/82-624-x/2014001/article/11922-eng.htm>.

⁴⁰ Ministry of Health and Long Term Care. "Ontario Inpatient Discharges Data," No Date, Data Request.

⁴¹ Statistics Canada, *National Household Survey*, 2011, Data Request.

Percentage of population aged 15 years and over by highest certificate, diploma or degree	Canada	Ontario	Middlesex-London	London	Middlesex
Apprenticeship or trades certificate or diploma	9%	6%	6%	6%	7%
College, CEGEP or other non-university certificate or diploma	15%	16%	18%	18%	19%
University certificate or diploma below bachelor level	4%	3%	3%	3%	2%
University certificate, diploma or degree at bachelor level or above	17%	19%	17%	19%	10%
Bachelor's degree	11%	12%	10%	11%	7%
University certificate, diploma or degree above bachelor level	6%	7%	7%	8%	4%

Figure 7: Population Aged 15 Years and Over by Highest Certificate, Diploma or Degree (Source: National Household Survey, 2011)

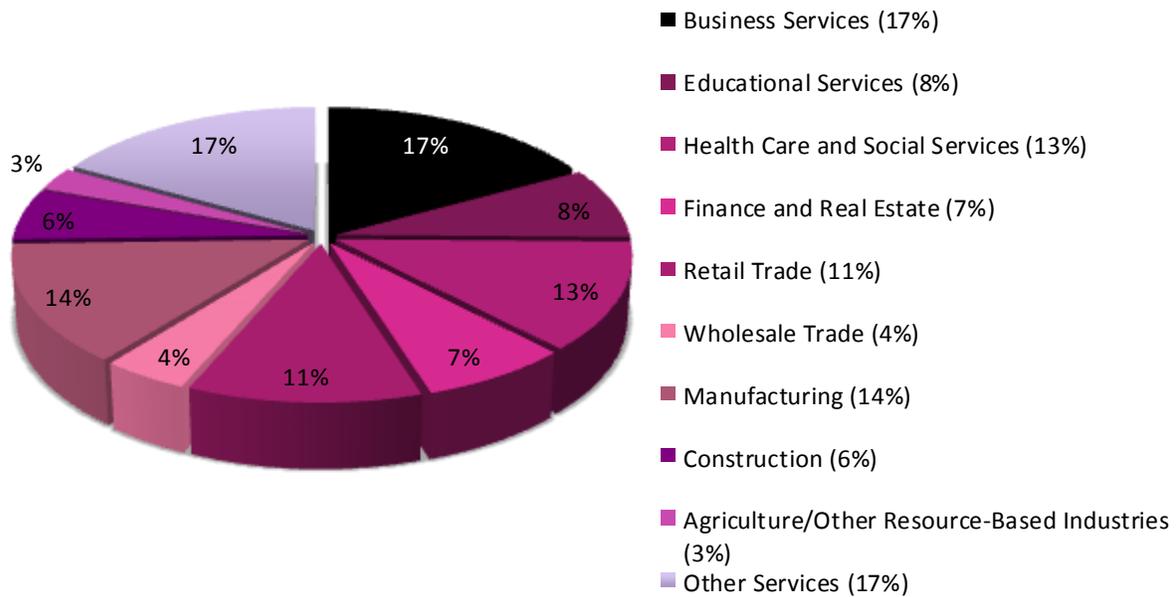


***Note:** The percentage of the population ages 15 and above years of age in Middlesex-London is consistent with the national and provincial average with only a 1-2% variance

The top five industries in Middlesex-London in 2006 were, from the highest number of occupations to the lowest, business services (17%), other services (16.8%), health care and social services (12.5%), manufacturing (13.8%), and retail trade (11.4%).⁴² The top three industries are generally shared by Canada, Ontario, London and Middlesex in roughly the same proportions (retail trade, health care and social assistance, and manufacturing) (see Figure 9). Interestingly, agriculture is one of the top five occupations in Middlesex, but is not in London, Ontario or Canada.

⁴² Middlesex-London Health Unit, "Healthy Communities Partnership Middlesex-London: Community Picture," 2011, Print, at p.25.

Figure 8: Top Five Industries (Source: National Household Survey, 2011)



The number of people and households receiving social assistance in Middlesex-London has been increasing over the years. In 2006, 6.5% of the population, and 9.6% of households received Ontario Disability Support Program (ODSP) and Ontario Works (OW). In June of 2014, these numbers rose to 8.2% of the Middlesex-London population (36,931 people), and 12.7% of households (23,733 households). Within this period of time, London’s social assistance caseloads have increased faster than its population; the Middlesex-London population increased by 7% and the ODSP and OW caseload increased by 35%. Since 2011, the ODSP caseload has been growing faster than the OW caseload.⁴³ As of 2014, the OW caseload is primarily represented by people over the age of 18 (75% of caseload), single individuals (64.3% of caseload), and households of families with children under the age of seven (over one-third of households).⁴⁴

⁴³ Child & Youth Network, *Poverty Trends in London*, 2011, Print, at p.11.

⁴⁴ City of London, “Ontario Works Participant Profile,” 2011, Print, p.1.

Figure 9: Occupations by Industry in Middlesex-London (Statistics Canada, 2006)

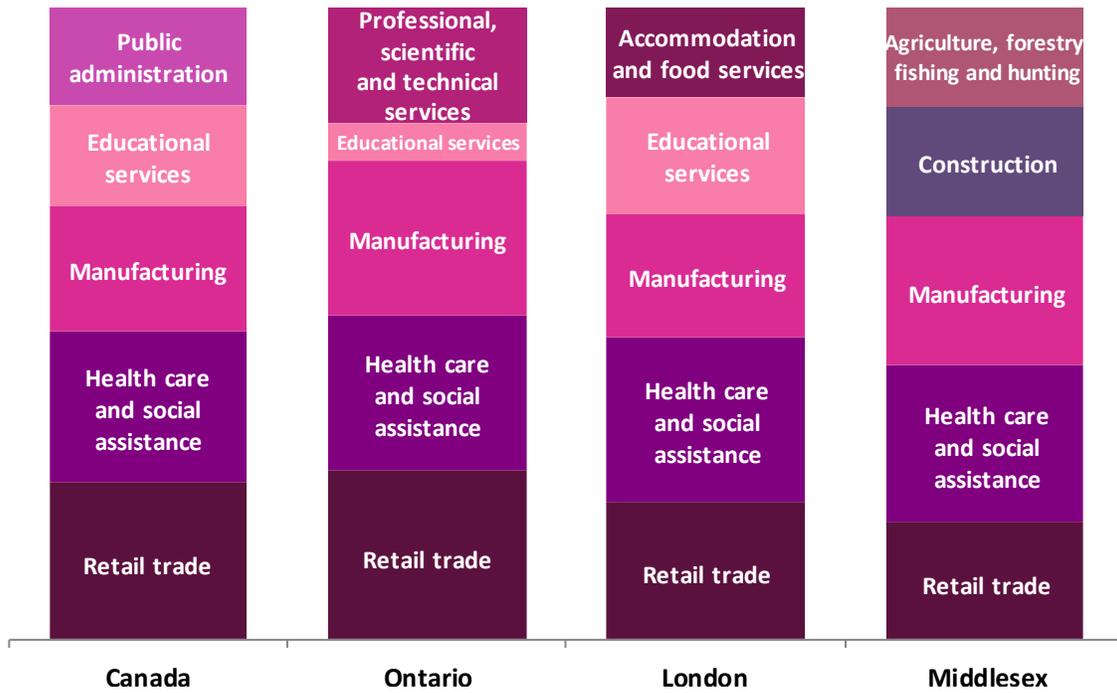
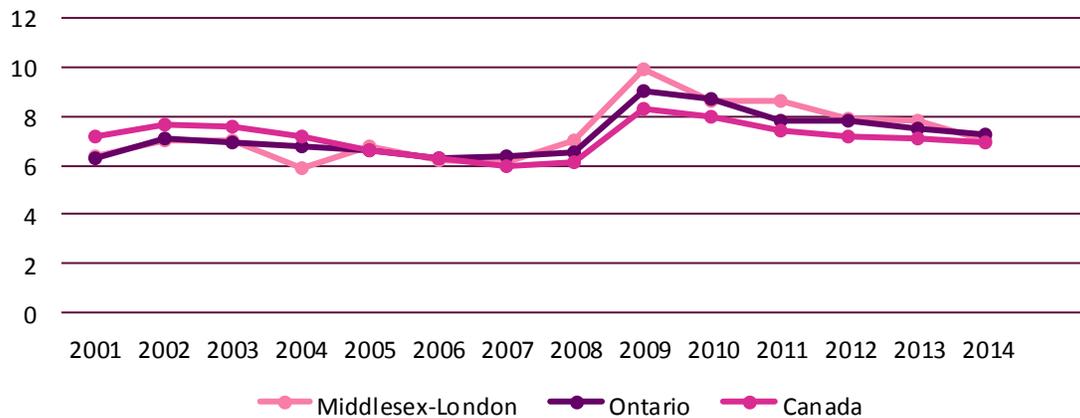


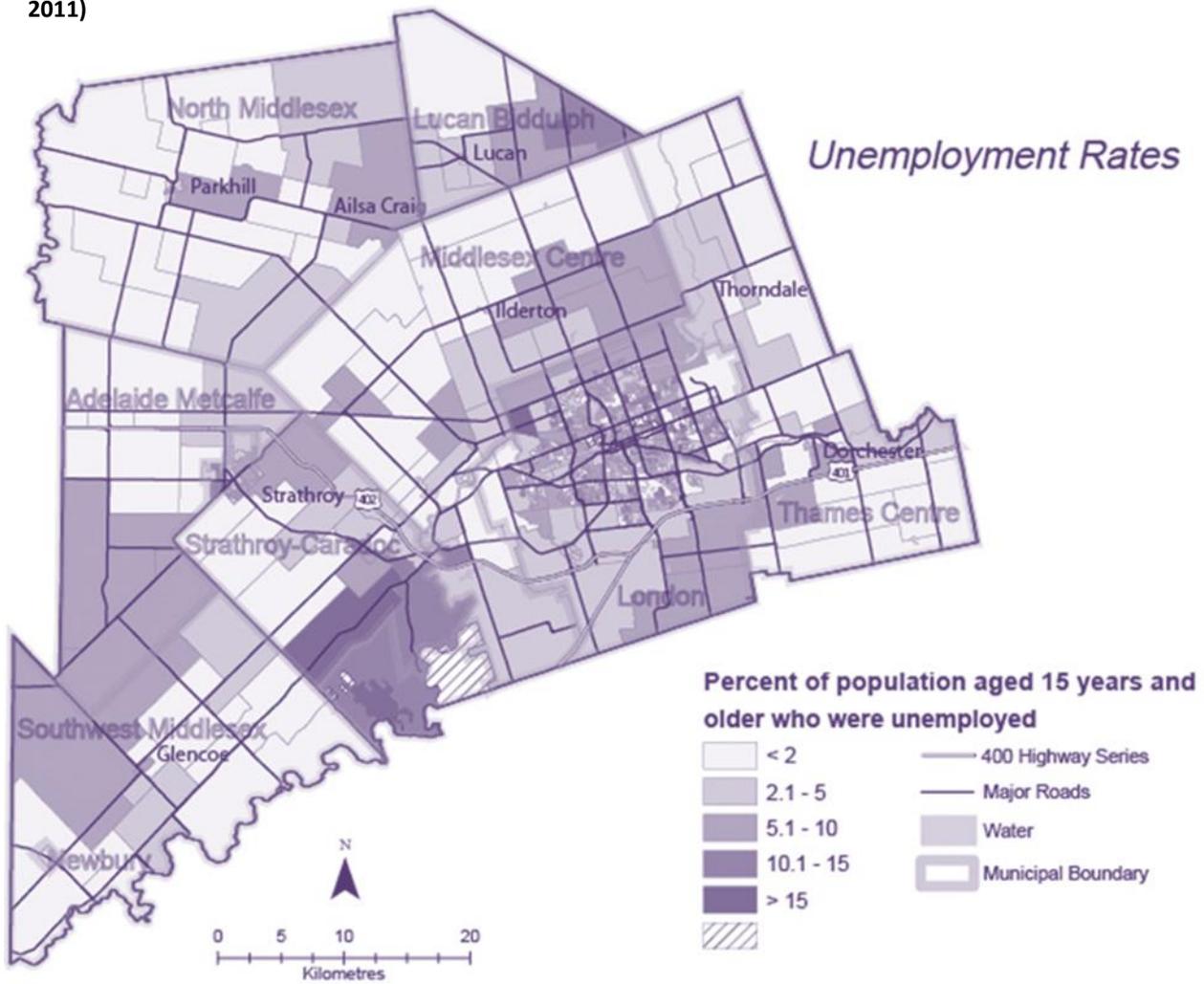
Figure 10: Unemployment Rates (Source: National Household Survey)



Middlesex-London’s 2014 unemployment rate (7.0% unemployment rate) is relatively in line with Ontario (7.3% unemployment rate) and Canada (6.9% unemployment rate). In April 2015, Middlesex-London’s unemployment rate was recorded as 6.3%, 0.7% lower than Ontario’s unemployment rate of 7.0%.⁴⁵

⁴⁵ Statistics Canada, at <https://www.investinmiddlesex.ca/data-centre/workforce-profile/unemployment-rate-trend>

Figure 11: Unemployment Rates in Middlesex County, 2006 (Source: Human Environmental Analysis Laboratory, 2011)



Human Environments Analysis Laboratory, 2011

Maps provided by the Middlesex-London Health Unit show the percent of the population ages 15+ in 2006 who were unemployed by where they live in the region.⁴⁶

The amount of income spent on shelter in Middlesex-London is a costly necessity. In 2010, 26.4% of households in Middlesex-London spent more than 30% of their total income on shelter costs (including rent and mortgage payments). While in Ontario as a whole, 42.3% of the population spent more than 30% of their income on shelter that they rent, in Middlesex-London this affects 44.7% of the population. For those in Ontario who own the place they use for shelter, 20.9% of the population spend more than 30% of their income on this cost, while in Middlesex-London 17.2% of residents spend more than 30% of their income on owned

⁴⁶ Human Environments Analysis Laboratory, "Employment," No Date, Web, at <http://communityhealthstats.healthunit.com/indicator/social-determinants-health/employment>

shelter.⁴⁷ In 2006, numbers were much higher with 25.8% of households (168,480 households) spending 30% or more of their income on housing. This compares to the provincial rate of 27.7%. The municipalities in Middlesex-London with the largest percentage of the population spending 30% or more of their income on housing are London (27.2%) and Newbury (34.3%).⁴⁸ The Social Research and Planning Unit states that in London, one in seven households are unable to afford shelter that meets adequacy, suitability and affordability norms.⁴⁹

Figure 12: Unemployment Rates in the City of London, 2006 (Source: Human Environmental Analysis Laboratory, 2011)



Cost of a Nutritious Food Basket

The cost of a Nutritious Food Basket helps us to understand how much people are required to pay for nutritious food based on the area in which they live in Ontario. According to the Nutritious Food Basket Report (2015) the weekly cost of the Nutritious Food Basket for a family of four in Middlesex-London is \$215.17 (\$860.67 monthly);⁵⁰ in Ontario the average is \$201.85 a

⁴⁷ Statistics Canada, *Focus on Geography Series, 2011 Census*, 2011, Web, at <http://www12.statcan.gc.ca/nhs-enm/2011/as-sa/fogs-spg/Pages/FOG.cfm?lang=E&level=3&GeoCode=555>.

⁴⁸ Middlesex-London Health Unit, *Healthy Communities Partnership Middlesex-London: Community Picture*, 2011, Print, at p.20.

⁴⁹ Social Research and Planning Unit, Community Services Department, *Fact Sheet: Low Income in London*, 2011, Print, p.1.

⁵⁰ Middlesex-London Health Unit, Report No. 50-15 2015 Nutritious Food Basket Survey Results and Implications for Government Public Policy, 2015, Print, at p.2.

week.⁵¹ With an average income of 14% lower than the province, but food costs remaining relatively the same, it can be difficult for some residents to budget for food.

Since 2014, the cost of a Nutritious Food Basket has increased in Middlesex-London to an additional \$56.03 per week (increase of 7%) for a family of four, showing that the cost of healthy food is becoming more expensive.⁵² (Note: a family of four includes a man and a woman each ages 31-50 years; a boy aged 14-18 years; and a girl aged 4-8 years). The cost of a Nutritious Food Basket for a single adult male has also increased since last year; in 2015, the cost of a Nutritious Food Basket in Middlesex-London was \$290 per month, compared to \$225.51 in 2014 (an increase of \$64.49 a month).⁵³

Cost of Healthy Eating

The Cost of Healthy Eating⁵⁴ shows that based on 2015 data, a single individual (male) who receives Ontario Works and all benefits and credits, receives \$740 a month. The \$740 a month does not provide adequate funds to cover the basic needs of housing and food (\$616 is needed for rent and \$290 is needed for food, based on the Nutritious Food Basket Survey, which leaves a deficit of \$166 a month. In addition to these costs, single individuals receiving Ontario Works still need to pay for heat and hydro, transportation, childcare, phone/internet, clothing, medical costs, personal care items, etc. Therefore, they must have cuts and sacrifices to survive (such as poor quality food) as they don't even have enough money to pay for rent and food alone. The situation is slightly better for a family of four (two adults, two children), but is still inadequate. A family of four who receives Ontario Works and all benefits and credits, receives \$2196 a month. Of this \$2196, \$1175 is spent on rent, and \$860 is spent on food. This leaves a remaining \$160 dollars to spend on other relevant costs identified above. See Table 8 for a breakdown of these costs. From this data, we can see that the most vulnerable residents, both individuals and families, in Middlesex-London do not have enough money to meet their basic needs. In 2014, this meant that approximately 36,931 residents of Middlesex-London did not have adequate funds to meet their basic needs (this number reflects the social assistance caseload in 2014 and does not include the dependents of each of these recipients who would also be impacted). For individuals who are struggling to afford healthy food, opportunities where people cook together as a group can help to make food more affordable as food costs are the highest when cooking for a single individual.

⁵¹ Nutritious Food Basket Report, Weekly Cost of a Nutritious Food Basket, 2013, Reference Family of Four Sorted Alphabetically, 2013, Print, at p.1.

⁵² Middlesex-London Health Unit, Report No. 50-15 2015 Nutritious Food Basket Survey Results and Implications for Government Public Policy, 2015, Print, at p.2.

⁵³ Middlesex-London Health Unit, Report No. 50-15 2015 Nutritious Food Basket Survey Results and Implications for Government Public Policy, 2015, Print, at p.2.

⁵⁴ Middlesex-London Health Unit, Report No. 50-15 2015 Nutritious Food Basket Survey Results and Implications for Government Public Policy, 2015, Print, at p.2.

Table 8: Monthly Income and Cost of Living Scenarios in Middlesex-London (Source: Middlesex-London Health Unit, 2015)

	Single Man on Ontario Works	Single Man on ODSP	Single Woman Over 70 (Old Age Security/ Guaranteed Income Security)	Family of 4 Ontario Works	Family of 4 Minimum Wage Earner	Family of 4 Median Income (after tax)
Income (Including Benefits & Credits)	\$740	\$1193	\$1544	\$2196	\$2882	\$6952
Estimated Rent*	\$616	\$788	\$788	\$1175	\$1175	\$1175
Food (Nutritious Food Basket)	\$290.09	\$290.09	\$210.02	\$860.67	\$860.67	\$860.67
What is Left**	-\$166.09	114.91	\$545.98	\$160.33	\$846.33	\$4916.33

* Rental estimates are from *Canadian Mortgage and Housing Corporation Rental Market Statistics, Spring 2015*. Utility costs may or may not be included in the rental estimates.
 ** People still need funds for utilities, phone, transportation, cleaning supplies, personal care items, clothing, gifts, entertainment, internet, school supplies, medical and dental costs and other costs.

The Middlesex-London population differs from Canada and Ontario in a number of ways:

- Population density (Middlesex-London is much denser)
- Education (Middlesex County has less people with higher education)
- Immigrant population (Middlesex-London has fewer immigrants) than Ontario
- Household income (Middlesex-London has a smaller average and median annual household income of 14% lower than Ontario)
- Leading cause of death (leading cause of death in Middlesex-London is heart disease, whereas in Canada it is cancer).

Areas of specific significance as they relate to indicators or determinants of food insecurity include:

- Education: Middlesex has lower rates of those with higher education and higher rates of less education.
- Household income: Middlesex-London has significantly reduced income compared to Ontario as a whole, as much as 14% less.
- Leading cause of death: While Middlesex is typical in its rates of heart disease as a leading cause of death compared to Canada, compared to London it has a 5% greater risk of death associated with heart disease.

“As a low income resident I can say that most vegetables are really expensive. As much as we want to eat more vegetables, ...our budget can’t afford it.”

– *Survey Respondent*

2.2 Gaps in Knowledge

There are a few pieces of information regarding the population that were not available for the Middlesex-London region. The amount of people experiencing homelessness in Middlesex-London is not known, although the number has been estimated. Data on the number of people receiving ODSP was also not readily available, nor is the number of beneficiaries (i.e. dependents) of social assistance within Middlesex-London as the City of London was on strike at time of writing.

2.3 Strengths and Assets

Middlesex-London has several strengths within the characteristics of its population. Education is one of the strengths of the residents; in London, there are many university graduates, and in Middlesex County there are a large number of college graduates and those trained in the trades (the number of university and college graduates and trades is higher than the provincial average); these assets are categorized as intellectual assets. Having a well-educated population creates many opportunities for residents as they have gained more skills and knowledge through their studies and are therefore; better equipped to earn a well-paying job.

In regards to communities, there is the cultural and spiritual asset of a large established community of indigenous peoples (identified by key informants). In addition, Middlesex-London residents identified an active and connected community around food system issues as one of their strengths. United communities can help fuel change in the food system, and other areas, as they are able to mobilize more people on the issues and spread awareness about issues and opportunities.

Population density is also an asset of Middlesex County as lower density allows for food production on a larger scale to take place (a material asset). Of the assets within Population, over half are cultural and spiritual assets. Table 9 lists all of the strengths and assets identified through the community food assessment process that pertain to this section of the report (please see 1.2 for Asset Legend).

Table 9: Strengths and Assets within Population

POPULATION						
						
1. Middlesex County has a low population density, allowing food production on a larger scale to take place						
						
2. Established community of Indigenous peoples, reserves, Indian Friendship Centres						
3. Active and connected community (community groups)						
4. Lower rate of obese adults than Ontario (higher number of healthy weight adults)						
						
5. University and college graduates						

2.4 Areas to Cultivate

Within Population there were two main areas in need of cultivation, the prevalence of food-related health issues and the prevalence of food insecurity (which can contribute to food-related health issues). In regards to food-related health issues, Middlesex-London residents have a concerning amount. The youth obesity rate is higher than the Canadian average. Many residents also suffer from heart disease and diabetes. These statistics are especially concerning as people can greatly lower their chance of having these health issues by living a healthy lifestyle (e.g. healthy food, exercise, not smoking); however, evidence shows many residents are not practicing a healthy lifestyle. 2011 data shows that 89% of Middlesex-London residents (12 years and older) do not eat the recommended amount of fruit and vegetables each day. Some residents struggle to meet these diet requirements due to the lack of affordable nutritious food. With the average income 14% lower than the province, some residents have inadequate incomes to afford healthy diets and often purchase nutrient deficient food, as it is often cheaper than nutrient rich food. The cost of a Nutritious Food Basket is relatively the same as the provincial average; however, lower average incomes make nutritious food difficult to afford. These same issues, among others, lead to food insecure populations.

In Middlesex-London 8% of households were considered moderately or severely food insecure in 2011. It is not only those residents who do not work (on social assistance) that cannot afford a proper diet, as 9.3% of people who access food banks are part of the working poor.⁵⁵ It is likely that more people who are part of the working class require food from the food bank as

⁵⁵ Ontario Association of Food Banks, *Hunger Report*, 2014, Print, at p.19.

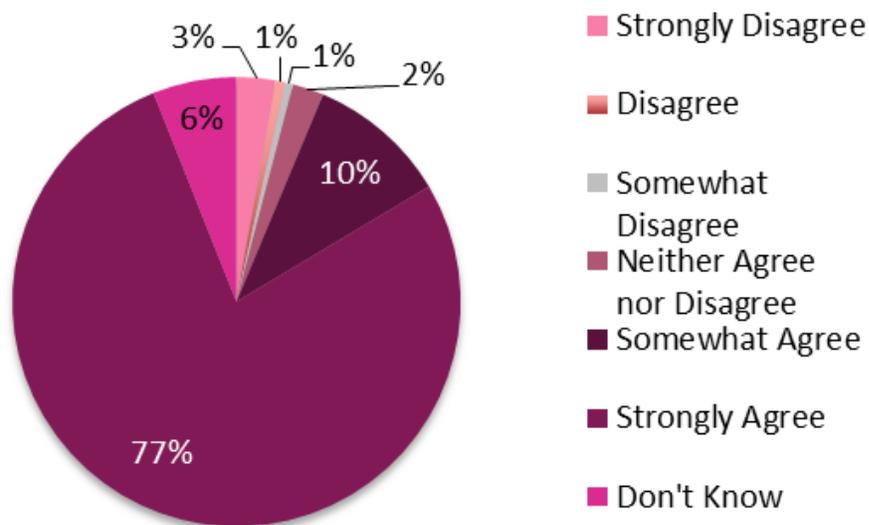
only about 25% of food insecure people access food banks.⁵⁶ To further support this claim, 57.5% of Ontario families who were food insecure in 2013 were part of the labour force.⁵⁷

Inadequate incomes and/or unaffordable housing can force residents into a situation where they prioritize paying for shelter and utilities, over a nutritious diet. In 2012, 11% of the total population in Middlesex-London (approx. 48,307 in 2011) spent more than 30% of their income on rent or mortgage payments, leaving an insufficient amount of money for food. Additionally, 8.5% Middlesex-London residents were unemployed in 2011, making it difficult for them to consume a nutritious diet.

2.5 Opportunities for Change

In an effort to determine Middlesex-London residents interest in addressing the areas of food insecurity and diet-related health issues in the region, residents were asked to rate how important they felt these issues were. When asked how important residents thought it was that healthy food is affordable for everyone in Middlesex-London, 85% of residents “strongly agreed” that this was important to them. A strong level of support was also seen when asked whether residents thought it was important that food-related health problems are prevented in Middlesex-London. For this question, 77% “strongly agreed” that this was important, and an additional 10% felt this was “somewhat important”. The figures below show a breakdown of responses for the two questions.

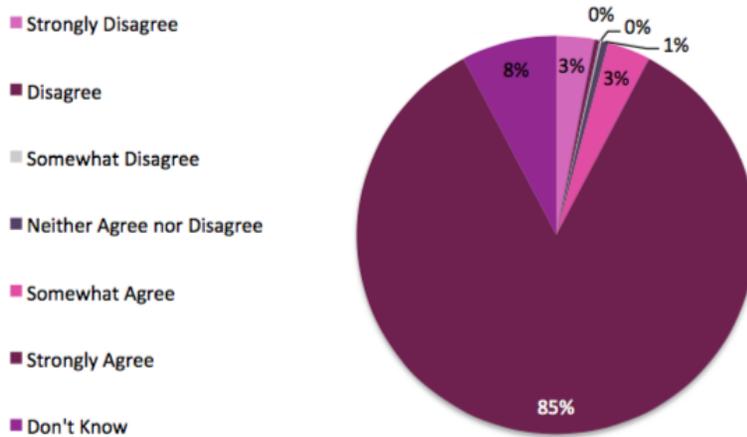
Figure 13: It is Important that Healthy Food is Affordable for Everyone in Middlesex-London



⁵⁶ Tarasuk, V. (no date). *Household Food Insecurity in Canada: Measurement, Monitoring and Research Results*. Web, at http://www.dignityforall.ca/sites/default/files/docs/Tarasuk_DfA_Policy_Summit_Dec_2012.pdf

⁵⁷ Tarasuk, V., Mitchell, A., & Dachner, N. (2013). *Household Food Insecurity in Canada*.

Figure 14: It is Important to Prevent Food-related Health Problems in Middlesex-London



As part of the Community Food Assessment, key informants and community members were asked to identify initiatives that could address the prevalence of food-related health issues and food insecurity within Middlesex-London.

To help decrease the amount of diet-related disease in Middlesex-London several initiatives were presented. Community members suggested that in order to reduce the prevalence of diet-related disease, healthy eating initiatives also need to be coupled with programming that increases the amount of physical activity that people participate in. It was noted that focusing on one aspect, and not both, does not help to instil healthy lifestyles in people.

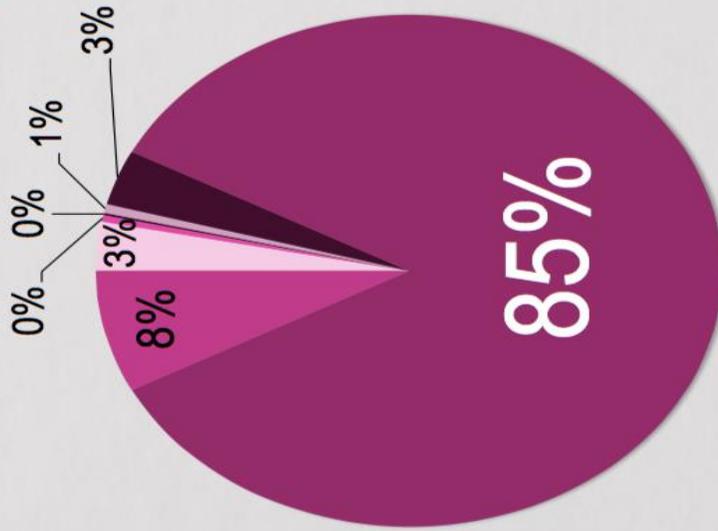
The practice of urban agriculture was also widely noted as an opportunity to encourage people to eat more nutritious food. Building more community gardens and school gardens are two ways to promote urban agriculture, as is providing workshops where people learn to garden so that they may do so on their own property. Through gardening, people are provided access to nutritious food, keep physically active and also increase their knowledge about the food system. The practice of urban agriculture can also help to reduce the prevalence of food insecurity.

To assist in decreasing the amount of food insecurity in Middlesex-London, several initiatives were noted throughout the Community Food Assessment process. Many people felt that part of the reason people are food insecure in their communities is because they have limited access to nutritious food. As a result, teaching people how to buy healthy food while on a budget was proposed. A regional plan to increase the amount of healthy food available at food service locations was also suggested as was planting fruit and nut bearing trees.

In regards to emergency food locations, food insecurity rates could decrease by providing infrastructure to food bank locations (such as cold storage units) so that they can store perishable items. These units could be stocked through providing subsidies to small-scale farmers as an incentive to donate goods to emergency food locations.

2.0 POPULATION

IT IS IMPORTANT THAT HEALTHY FOOD IS AFFORDABLE FOR EVERYONE



- Strongly Disagree
- Disagree
- Somewhat Disagree
- Neither Agree nor Disagree
- Somewhat Agree
- Strongly Agree
- Don't Know



459,821 PEOPLE IN MIDDLESEX-LONDON



383,817 PEOPLE IN LONDON



76,004 PEOPLE IN MIDDLESEX COUNTY



FOOD INSECURITY

54,325
Low Income Residents

36,931
Residents on Social Assistance

48,307
Residents Spending < 30% of Income on Housing



3.0 FOOD PRODUCTION



3.0 FOOD PRODUCTION

3.1 Findings

The following section will give an overview of agricultural production in Middlesex-London. This will help to build a more in-depth understanding of the local food system in the area and identify potential opportunities to strengthen it.

The objectives of this section are:

- To provide an overview of local agriculture in the area;
- To provide an account of sustainable or alternative food production; and
- To provide an account of activity in local and community-based food production, which includes smaller-scale, alternative or non-traditional forms of food production.

More specifically, this section looks at the number, type, and size of farms in Middlesex-London, as well as the major crops being grown on farms and how many farms are producing certified and transitional organic products. The number of operators on farms and the average age of operators, in addition to annual gross farm receipts and import/export data, serve to contextualize this information. Finally, an account of food production at the local and community level helps to determine if conventional (large-scale) agricultural production is being counterbalanced by alternative (small-scale) food system activity.

Farmland

The farmland area in Middlesex-London is 609,344 acres, making up 15.92% of Southern Ontario's total farmland (3,827,941 acres).⁵⁸ Southern Ontario includes Central Ontario, Eastern Ontario, Southwestern Ontario, and the Golden Horseshoe. The price per acre for this farmland (Table 10) has increased significantly over the past 5 years, by 33% in Middlesex County East and by 41% in Middlesex County West. As a result, it is becoming more difficult for new and existing farmers to increase their profitability through land purchase.

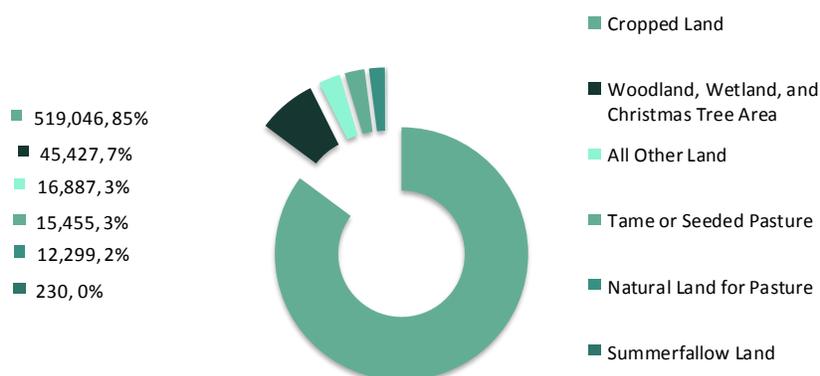
Table 10: Price per Acre for Farmland in Middlesex-London, 2012-2014 (Source: RE/MAX Farm Report, 2014 and RE/MAX Market Trends, Farm Edition, 2012)

	2010	2011	2012	2013	2014
Middlesex County East	\$8,000	\$9,000	\$10,500	\$12,000	\$12,000
Middlesex County West	\$5,000	\$6,000	\$7,500	\$12,000	\$8,500

⁵⁸ Statistics Canada, "Land Use," *Census of Agriculture*, 2011.

Of the total farmland area in Middlesex-London, 85.18% (519,046 acres) is used as cropland (Figure 15). In addition, the total greenhouse space—the area under glass or plastic—in Middlesex-London is 80,065 square meters. This greenhouse space accounts for only a small percentage (0.64%) of the province’s total greenhouse space (12,549,007 sq/m), the majority of which, 84.45% or 10,722,671 sq/m, is located in Southern Ontario.⁵⁹ This suggests that farms in Middlesex-London are more closely tied to traditional farming methods than high-tech methods, such as growing hydroponic crops like tomatoes, cucumbers, and sweet peppers. This also means there may be an opportunity for further investigation into the expansion of greenhouse space in the area.

Figure 15: Farmland in Middlesex-London by Use of Land in Acres, Percentage (Source: Census of Agriculture, 2011)



Farming and Farm Size

According to the 2011 Census of Agriculture, the total number of farms in Middlesex-London is 2,352. This is a 25.62% decrease in the number of farms since the 1991 census. This decrease corresponds to a provincial decline in the number of farms over the same period of time (24.31%).⁶⁰ With a recent increase in the price of farmland and a consistent decrease in the number of farms in the region, this suggests that consolidation of farmland is taking place. This movement towards less and bigger farms neither exists in isolation nor has gone unnoticed in the public domain. Paul Waldie explains, “the long-held image of Canadian farmers plowing small plots of land to eke out a meagre existence has been dashed by a new report (2011 Census of Agriculture) that reveals Canadian agriculture is rapidly consolidating and the size of family farms is growing at an unprecedented rate.”⁶¹

Looking more closely at the size (in acres) of farm operation in Middlesex-London, the findings show that in 2011 approximately half of the total number of farms (49.11%) are between 10-129 acres in size. Very few farms, 110 or 4.68%, are 1-9 acres while more than double the number of farms, 269 or 11.44%, fall into the largest category of 560 acres and over (Figure 16).

⁵⁹ Statistics Canada, “Greenhouse Area,” *Census of Agriculture*, 2011.

⁶⁰ Statistics Canada, “Number of Census Farms by County” *Censuses of Agriculture*, 1991, 1996, 2001, 2006, and 2011.

⁶¹ Paul Waldie, “Family Farms are Fewer and Larger, StatsCan says,” *The Globe and Mail*, June 18, 2012.

Figure 16: Number and Percentage of Farms in Middlesex-London, by Size (acres) of Operation (Source: Census of Agriculture, 2011)



When compared to the number and size of farms in 2006 (Table 11) it can be seen that, on the one hand, there is a decrease in the total number of farms (6.85%). On the other hand, there is a significant increase (7%) in farms of 70-129 acres in size and a small increase (1.1%) in farms of 560 acres and over. The 1-9 acre and 130-179 acre farms saw the most significant decrease in number, by 22.5% and 26% respectively. What cannot be determined from this data is whether or not some of these small farms have been amalgamated into new larger farms, namely the 70-129 acre and 560 acres and over sized farms. However, in consideration of the increasing price of farmland (see above), and looking at both the types of farms in Middlesex-London (see below) and municipal policies that favour the expansion of farm parcels through the consolidation of farm plots (see 3.7.1), it can be reasonably assumed that some of the small farms have been consumed by larger farms producing crops for commodity markets.

Table 11: Number of Farms in Middlesex-London, by Size (acres) of Operation, 2006 and 2011 (Source: Census of Agriculture, 2006, 2011)

Year	1-9 Acres	10-69 Acres	70-129 Acres	130-179 Acres	180-239 Acres	240-399 Acres	400-559 Acres	560 Acres & Over	Total Farms
2006	142	676	510	242	220	306	163	266	2525
2011	110	638	517	179	203	275	161	269	2352
+/- %	-22.5	-5.6	7	-26	-7.7	-10.1	-1.2	1.1	-6.85

Agricultural Production

The types of farms in Middlesex-London, broken down by industry (Figure 17) show that oilseed and grain farms far outnumber any other type of farming. This suggests that the cash cropping of commodities for an export market is the main priority and strength for farms in the area. The concentration of cash crops in the region is made further apparent when Middlesex-London is compared to other counties in Ontario that grow corn, soybeans, and wheat (Figures 18, 19, and 20). This is further evidenced below when considering total gross farm cash

receipts. With respect to other farming industries, such as beef cattle ranching, even though the total number of farms engaged in livestock farming make up a significant percentage of the region’s remaining farm types (21.8%), Middlesex-London’s percentages of the province’s total number of livestock (excluding poultry) are very small (Table 12).

Figure 17: Number of Farms in Middlesex-London by Industry (Source: Census of Agriculture, 2011)

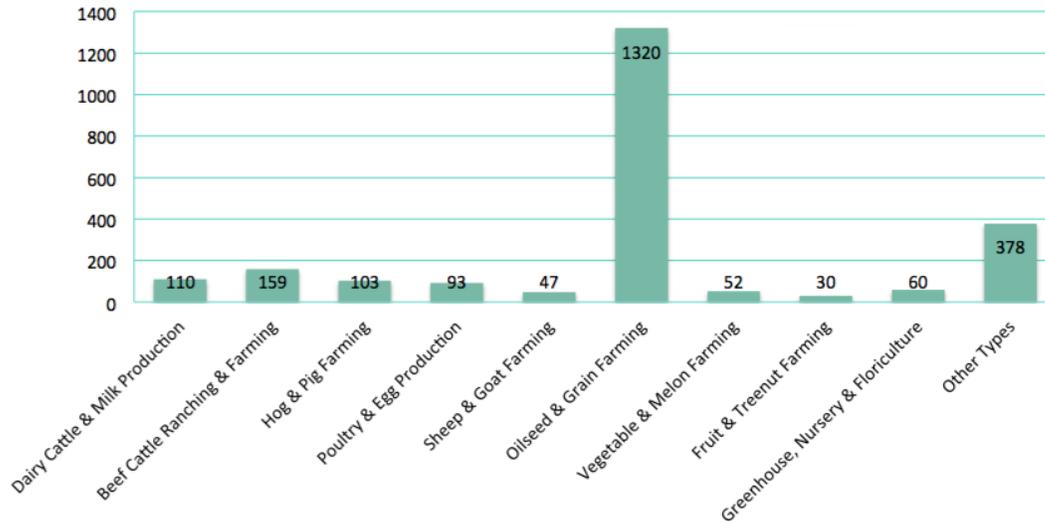


Table 12: Livestock in Middlesex-London and Ontario, by Number and Percentage, July 2014 (Source: Statistics Unit, OMAFRA, Statistics Canada)

Livestock	Middlesex-London	Ontario	Percentage of Province
Cattle	58,171	17,593,000	0.33
Pigs	320,453	30,416,000	1.05
Sheep	12,852	3,355,000	0.38

When comparing the hectares dedicated to corn, soybean, and wheat, to the major field, fruit, and vegetable crops (by hectares) grown in Middlesex-London (Table 13), the total hectares dedicated to the major fruit and vegetable crops are minimal. However, in relation to the total land in Ontario dedicated to growing these fruit and vegetable crops, it is important to note that Middlesex-London controls high percentages of the total land dedicated to the production of green peas (32.11%), sweet corn (14.99%), and green or wax beans (20.8%) (Table 13).

Figure 18: Hectares of Corn per County in Ontario, 2011 (Source: Statistics Unit, Census of Agriculture Maps, 2011)

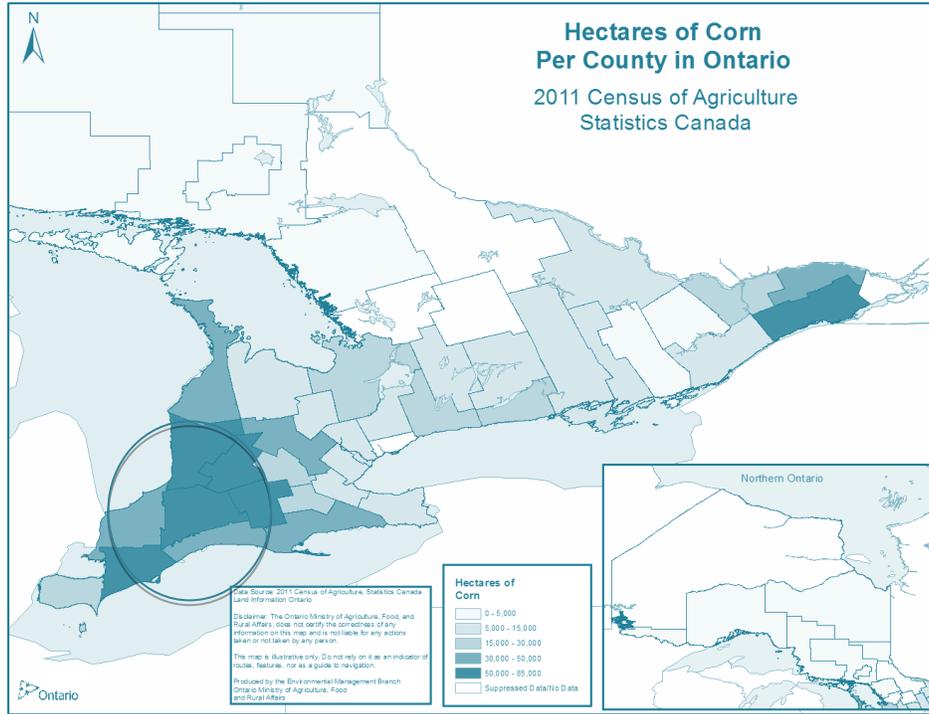


Figure 19: Hectares of Soybeans per County in Ontario, 2011 (Source: Statistics Unit, Census of Agriculture Maps, 2011)

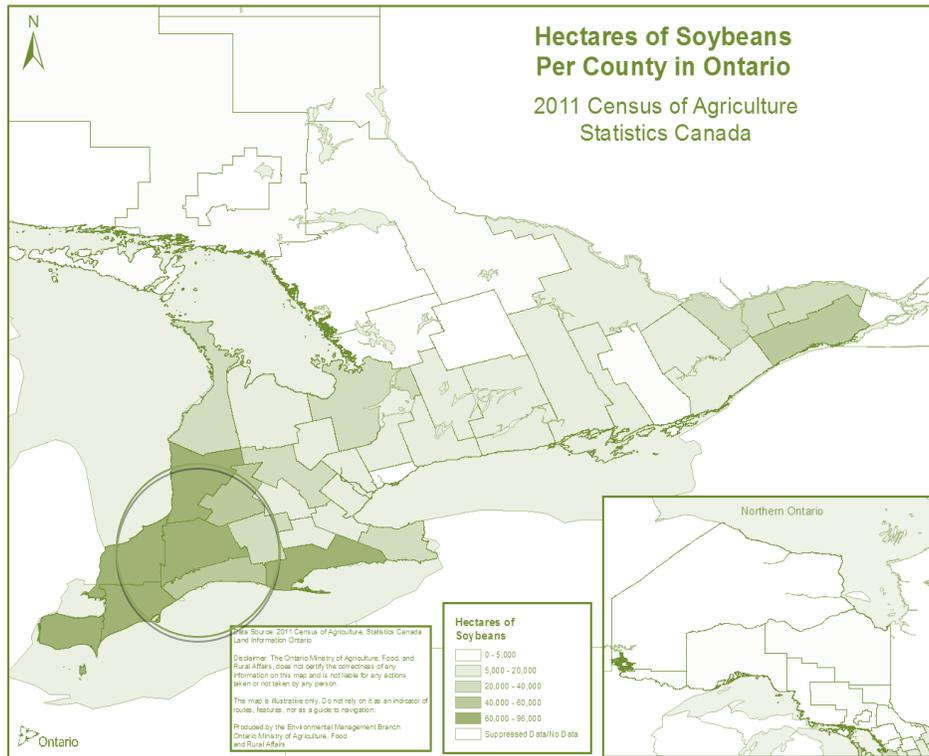


Figure 20: Hectares of Wheat per County in Ontario, 2011 (Source: Statistics Unit, Census of Agriculture Maps, 2011)

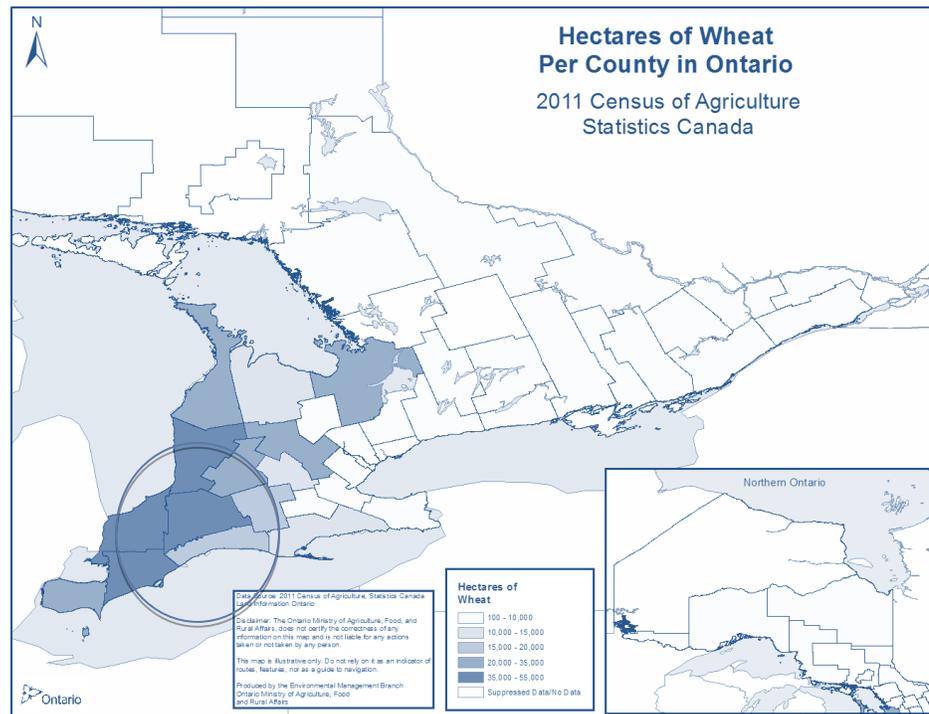


Table 13: Major (hectares) Field Crops, Fruit Crops, and Vegetable Crops in Middlesex-London, Compared to Ontario (Source: Census of Agriculture, 2011)

Major Crops, 2011	Middlesex-London	Ontario	% Province
Field Crops			
Corn for Grain	71,424	822,465	8.68
Soybeans	66,556	997,497	6.67
Winter Wheat	39,804	445,155	8.94
Hay	13,660	840,901	1.62
Corn for Silage	4,690	109,953	4.27
Fruit Crops			
Apples	237	6406	3.70
Strawberries	41	1,329	3.09
Raspberries	11	365	3.01
Peaches	6	2,612	0.23
Sour Cherries	0	948	0.00
Vegetable Crops			
Green Peas	1,965	6,119	32.11
Sweet Corn	1,549	10,336	14.99
Green or Wax Beans	773	3,717	20.80
Tomatoes	40	6,701	0.60

This confirms that Middlesex-London currently specializes in growing specific vegetable crops but, more importantly, it suggests that there may be an opportunity for the area to specialize in crops that grow in similar soil conditions. The surface soil textures in Middlesex-London (Figure 21) show that silty clay loam and silt loam cover most of the area, in addition bands of clay loam and pockets of loamy fine sand, fine sandy loam, and fine sand. Complementary data on the physical and climatic capability of the land in Middlesex-London (Figure 22) shows there are some “moderately severe” limitations on using land with loamy fine sand, fine sandy loam, and fine sand, for crops; however, the majority of land has only moderate limitations on its use for crops because it is covered in silty clay loam.

Furthermore, there are areas, namely those covered in silt loam, that have no significant limitations in use for crops. These findings lend themselves to further research into new crops that Middlesex-London can specialize in, as well as the opportunity to work on a future regional crop diversification strategy that could help to offset the importation of crops into the area that could easily grow there.

Figure 21: Surface Soil Texture in Middlesex-London (Source: Land Information Ontario, Soil Survey Complex, September 2009 – July 2010)

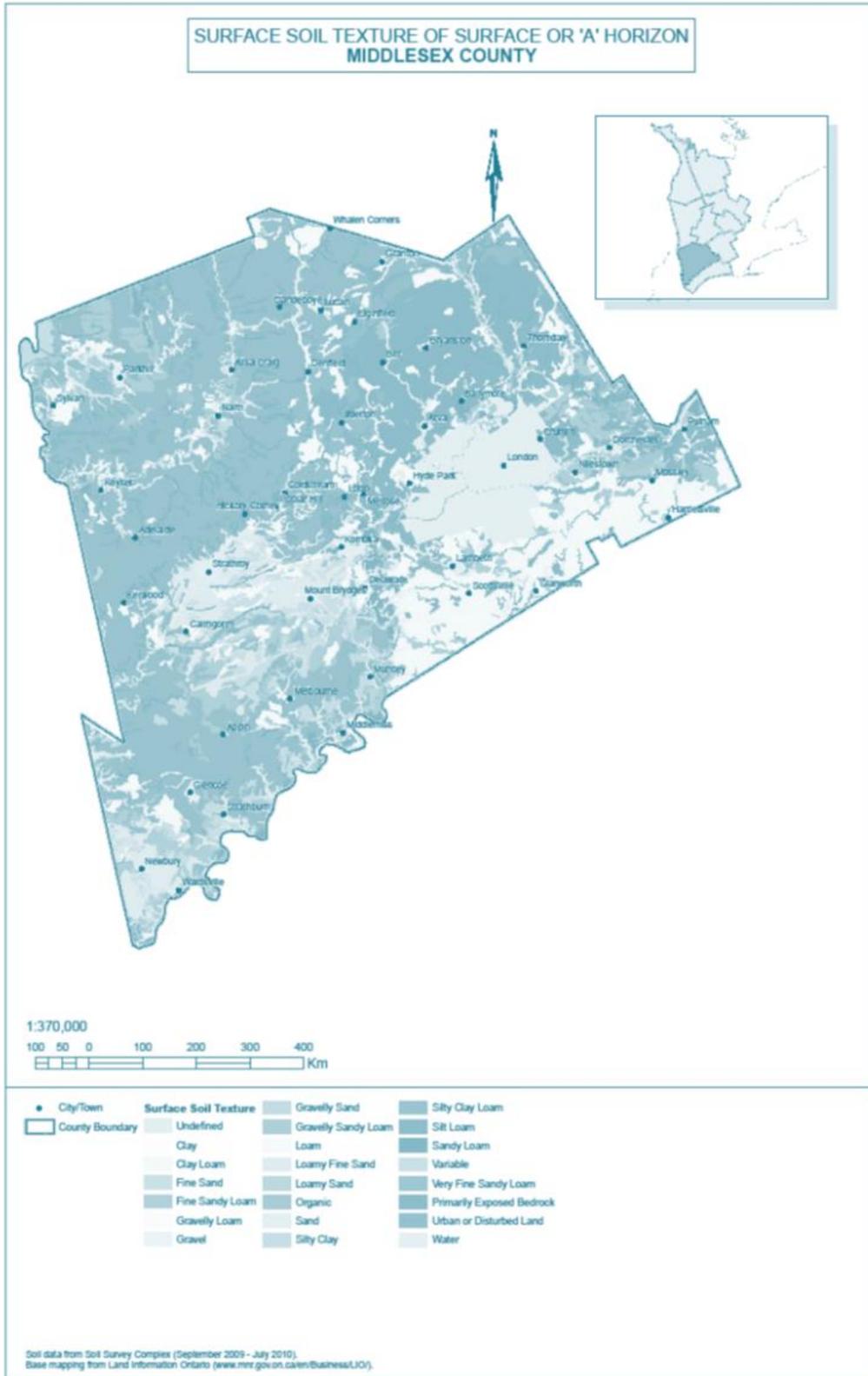
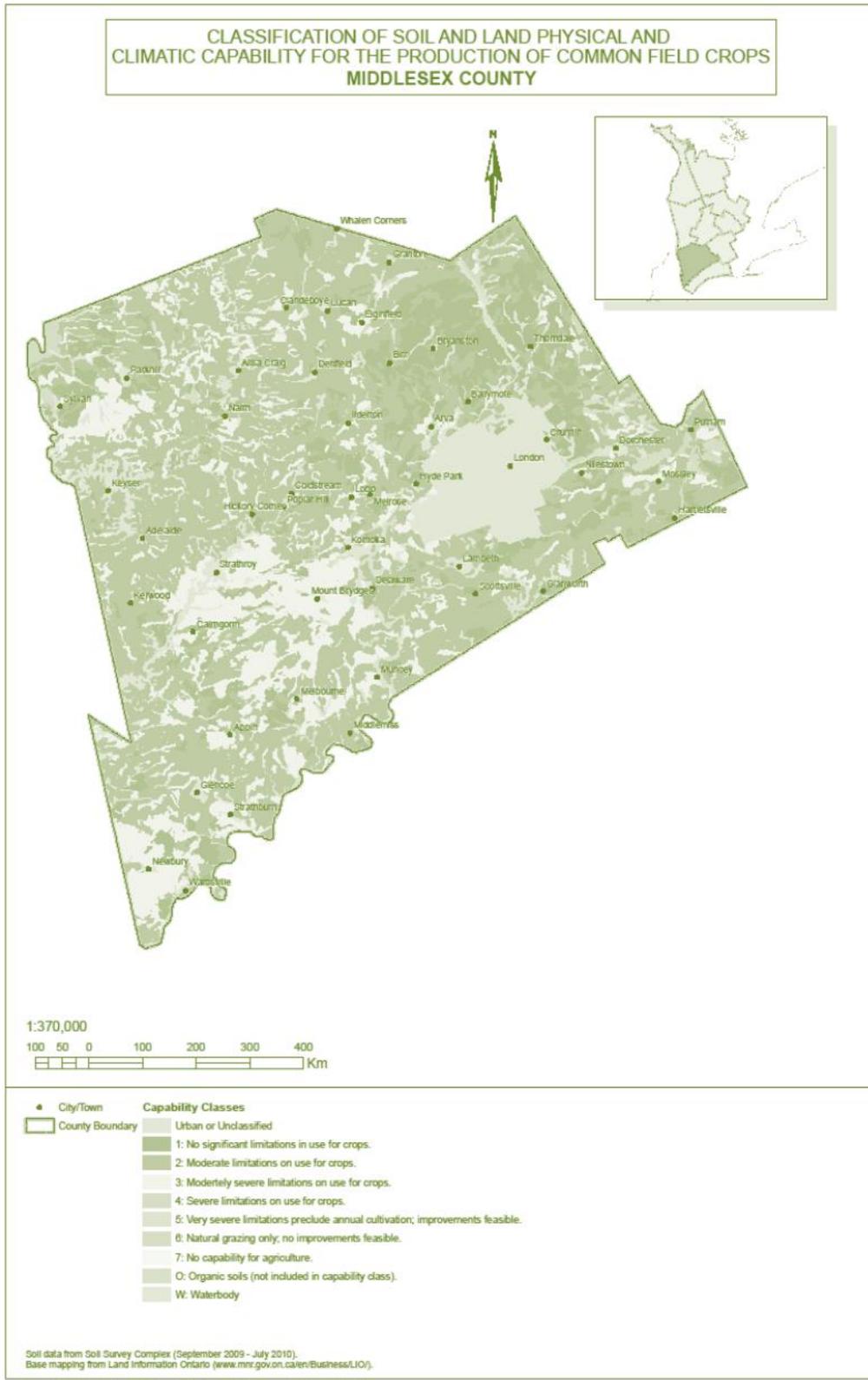


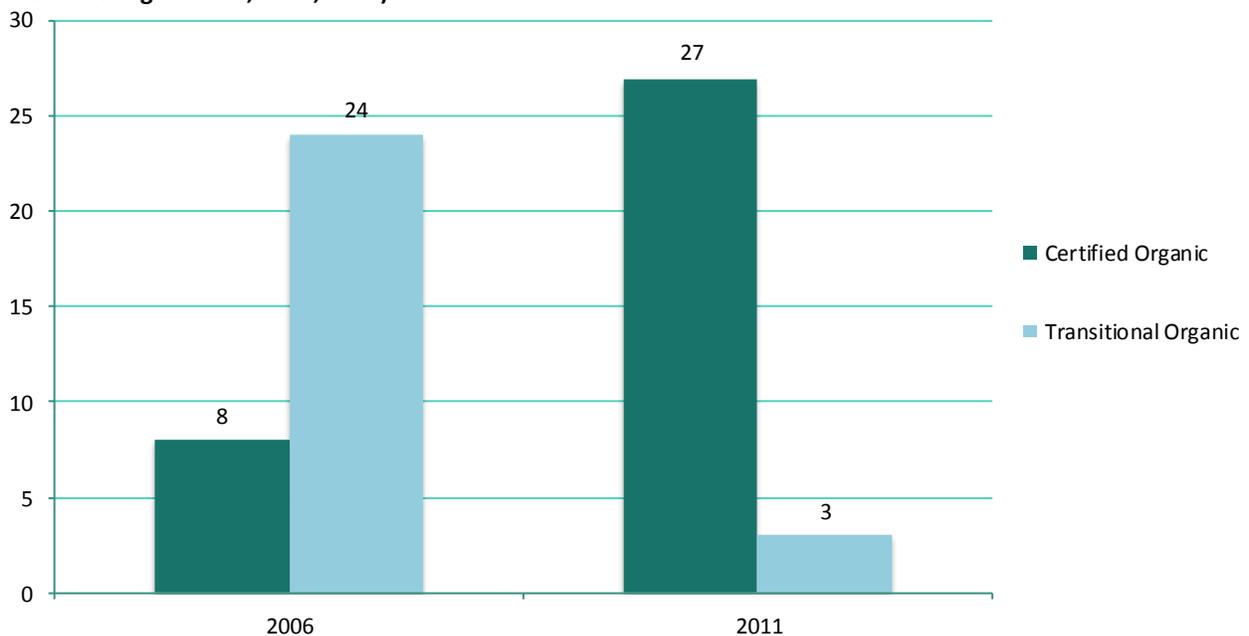
Figure 22: Classification of Soil and Land, Physical and Climatic Capability for the Production of Common Field Crops, Middlesex-London (Source: Land Information Ontario, Soil Survey Complex, September 2009 – July 2010)



Sustainable Agricultural Production

Of the total number of Middlesex-London farms in 2011, 29 reported organic products for sale, with 27 reporting certified organic products for sale and 3 reporting transitional organic products (products moving through the process of becoming certified organic) for sale (Figure 23). As a whole, these 29 farms make up only 1.2% of the total farms in the area. When compared to the number of farms in the area reporting certified and transitional organic production in 2006 (32), it can be seen that many farms (19) have transitioned to become certified organic in 2011, but the number of new farms transitioning to become organic has decreased 87.5%, from 24 to 3 farms.

Figure 23: Farms in Middlesex-London Reporting Certified Organic and Transitional Organic Production (Source: Census of Agriculture, 2011, 2006)



While this indicates that *organic* farming is losing traction in the region, Middlesex-London farms may be practicing other sustainable farming methods. In fact, several farms were identified in the region as being best practices for sustainable agricultural operation, using water conservation, energy conservation, and waste reduction and disposal as criteria.⁶² These farms include: Heeman’s Strawberry Farm in London; The Flower Ranch in Strathroy; Whitecrest Mushrooms in Putnam; and Sand Plains Aquaculture in Mossley. An analysis of environmental farm plans in place in Middlesex-London provides further insight into sustainable agricultural production activity in the region.

The Canada-Ontario Environmental Farm Plan Program (EFP)—developed by an Ontario Farm Environmental Coalition, consisting of the Ontario Federation of Agriculture, Christian Farmers

⁶² Shaun Anthony, “Sustainable Agricultural Practices for Middlesex County,” Community Futures Development Corporation of Middlesex County, April 2013.

Federation of Ontario, and Farm & Food Care Ontario—is delivered in Ontario by the Ontario Soil and Crop Improvement Association, with the support of the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA). This program supports farms by increasing their environmental awareness and activity in up to 23 different areas on their farm (Table 9). Interestingly, none of the 23 EFP action areas are social in nature. While on-farm environmental considerations are an important part of any sustainable production efforts, a full sustainability plan might include social aspects as well. In addition, baseline assessments, benchmarking and evaluation may be components that could improve the tracking of progress in the adoption of environmental actions and sustainable farming methods.⁶³

Table 9: Environmental Farm Plan Action Areas (Source: Ontario Soil and Crop Improvement Association, Environmental Farm Plan Infosheets, 2015, www.ontariosoilcrop.org)

Soil and Site Evaluation	Disposal of Livestock Mortalities	Use and Management of Manure and Other Organic and/or Prescribed Materials
Water Wells	Storage and Feeding of Ensilage	Horticultural Production
Pesticide Handling and Storage	Milking Centre Washwater	Field Crop Management
Fertilizer Storage and Handling	Nuisances and Normal Farming Practices	Pest Management
Storage of Petroleum Products	Water Efficiency	Stream, Ditch and Floodplain Management
Disposal of Farm Wastes	Energy Efficiency	Wetlands and Wildlife Ponds
Treatment of Household Wastewater	Soil Management	Woodlands and Wildlife
On-farm Storage, Treatment and Management of Manure and Other Prescribed Materials	Nutrient Management in Growing Crops	

A snapshot of Middlesex-London farmer participation in each of the steps associated with EFPs follows below (Table 10). Of the 2352 total farms in the area, 603 (26%) submitted EFP action plans for review. This indicates a strong interest by farmers in Middlesex-London to integrate sound environmental management practices into their farming operation. However, it also

⁶³ The first step involves attending a local EFP workshop and then completing a risk assessment that highlights environmental strengths on each farm as well as areas of concern. The risk assessment is completed using a workbook that contains 23 worksheets, with an average of 20 questions, which help to rate different situations on each farm. Once the risk assessment is complete, each participant develops an action plan that corresponds to the ratings from their risk assessment. This is followed by Step 2, submitting the action plan for review by a committee that is comprised of local farmers who have experience in sustainable farming. Step 3, the final step, involves participants implementing their action plan, which is based on the farms priorities, with technical assistance from OMAFRA. Federal-Territorial-Provincial cost-sharing programs—through the Great Lakes Agricultural Stewardship Initiative, Growing Forward 2, and the Species at Risk Farm Incentive Program—are available for environmental improvement projects that are associated with implementing EFP action plans.

sheds light on the fact that almost 75% of farmers in the area have not yet expressed a public commitment to adopt more sustainable farming practices.

Table 10: Canada-Ontario Environmental Farm Plans, April 18, 2005 – March 31, 2013 (Ontario Soil and Crop Improvement Association)

County	Number of Workshops Attended	Number of Participants	Number of Workbooks Completed	Number of Reviews Completed
Middlesex	37	654	663	603
Ontario	1,348	17,578	16,929	13,702

Of the farmers who completed EFP action plans between April 2005 and March 2013, 1,525 applied to complementary cost-sharing programs to claim a portion of the costs associated with implementing their action plan (Table 11). The Federal-Territorial-Provincial cost-sharing programs associated with this timeline include: The Canadian-Ontario Farm Stewardship Program [COFSP], Greencover Canada [GC], and the Canadian-Ontario Water Supply Expansion Program [COWSEP] from 2005-2008; COFSP, GC, and COWSEP, from 2008-2009; and COFSP from 2009-2013, GC and COWSEP did not continue beyond March 31, 2009. Interestingly, the total sum of all claims paid out to these farmers (\$5,728,532) is only 28% of the gross project cost, which means the remaining funds needed to come from somewhere else (Table 11).

Table 11: Environmental Improvement Projects Completed through Cost-Share Programs associated with Environmental Farm Plans, April 1, 2005 – March 31, 2013 (Ontario Soil and Crop Improvement Association)

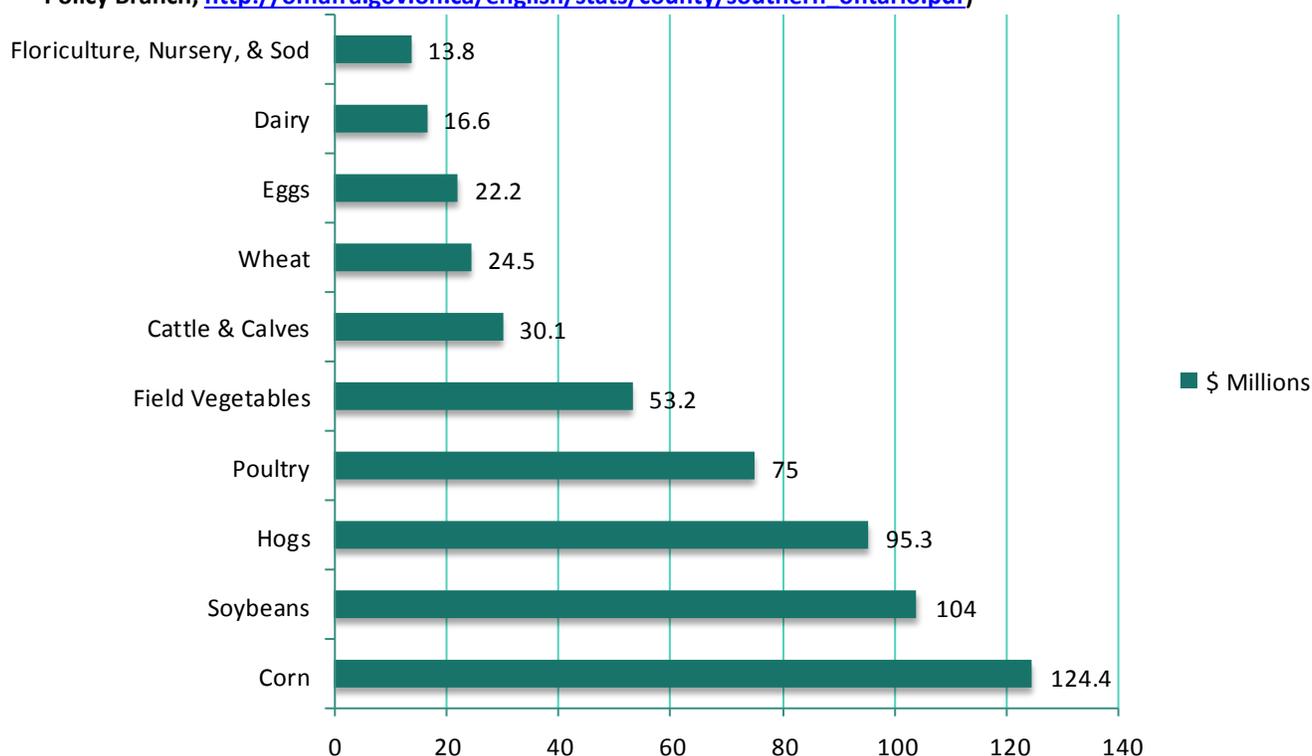
County	Number of Claims Paid	Total Sum of Claims Paid	Gross Project Cost
Middlesex	1,525	\$5,728,532	\$20,412,929
Ontario	23,760	\$100,565,713	\$361,424,234

Farm Cash Receipts

Farm cash receipts for the major commodities in Middlesex-London (Figure 24) total \$604.3 million. Not surprisingly, with the number of farms and amount of land dedicated to oilseed and grain farming, the greatest contributor to farm cash receipts in 2013 was corn production, at \$124.4 million (representing 21% of total receipts). Combined with the other leading commodities, “the total cash receipts for corn, soybeans, hogs and poultry [\$398.7 million] represent almost 60% of the value of agriculture production in the County of Middlesex.”⁶⁴

⁶⁴ County of Middlesex, *Agri-Food Economic Impact Report*, March 2015, Print, at p. 20.

Figure 24: Farm Cash Receipts for Major Commodities in Middlesex-London, 2013 (Source: OMAFRA, Strategic Policy Branch, http://omafra.gov.on.ca/english/stats/county/southern_ontario.pdf)



A comparative breakdown of the number of farms contributing to annual gross farm receipts in Middlesex-London from 2006 and 2011 (Table 17), shows a definite trend towards consolidation in the area; that is, the number of farms in all categories below \$1,000,000 decreased by 214 farms (8.82%) while the number of farms in the largest two categories (\$1,000,000 and \$2,000,000 and over) grew by 41 farms (29.5%). This is a net loss of 173 farms in Middlesex-London from 2006 to 2011. This suggests that a small number of the small-to-medium size farms successfully scaled-up their operations while the majority (173) went out of business or sold their land

Table 17: Total Gross Farm Receipts, by Number of Farms, in Middlesex-London, Compared to Ontario (Source: Census of Agriculture, 2006, 2011)

Total Gross Farm Receipts	2006		% Province	2011		% Province
	Middlesex-London	Ontario		Middlesex-London	Ontario	
Under \$10,000	407	14,500	2.81	299	12263	2.44
\$10,000 - \$24,999	460	10,828	4.25	413	9098	4.54
\$25,000 - \$49,999	370	7,397	5.00	364	6720	5.42
\$50,000 - \$99,999	328	6,521	5.03	325	6189	5.25
\$100,000 - \$249,999	403	7,965	5.06	374	6985	5.35

Total Gross Farm Receipts	2006		% Province	2011		% Province
	Middlesex-London	Ontario		Middlesex-London	Ontario	
\$250,000 - \$499,999	277	5,589	4.96	244	5086	4.80
\$500,000 – \$999,999	182	2,745	6.63	194	3248	5.97
Subtotal	2,427	55,545	4.37	2,213	49,589	4.46
\$1,000,000 - \$1,999,999	98	1,666	5.88	101	1558	6.48
\$2,000,000 and Over				38	803	4.73
Total	2,525	57,211	4.41	2,352	51,950	4.53

Farm Operators

The total number of operators on farms in Middlesex-London is 3,405, of which 2,070 operators are from farms with two or more operators, and 1,335 operators are from farms with one operator.⁶⁵ The average age of these operators has increased over time, which is consistent with an increase in the average age of operators across the province (Figure 25). This means that succession planning is very important for the future of the agricultural industry in Middlesex-London. It also points to an invaluable resource, namely, farming knowledge and experience. New and young entrants coming into the farming industry can benefit greatly from an existing agricultural knowledge base if mechanisms for learning and knowledge transfer are set-up in time.

Figure 25: Average Age of Farm Operators in Middlesex-London, Compared to Ontario (Source: Census' of Agriculture, 1991, 1996, 2001, 2006, and 2011)



⁶⁵ Statistics Canada, “Number of Census Farms and Number of Operators, by County,” *Census of Agriculture*, 2011.

Food Imports and Exports

Provincial food import and export data help to contextualize the current state of Middlesex-London's food production. In 2014, the province imported over \$23.4 billion in food while it exported just under \$12.5 billion (Figure 26). The positive socio-economic and environmental impacts of replacing some of the food imported cannot be understated. According to the *Dollars & Sense* report:

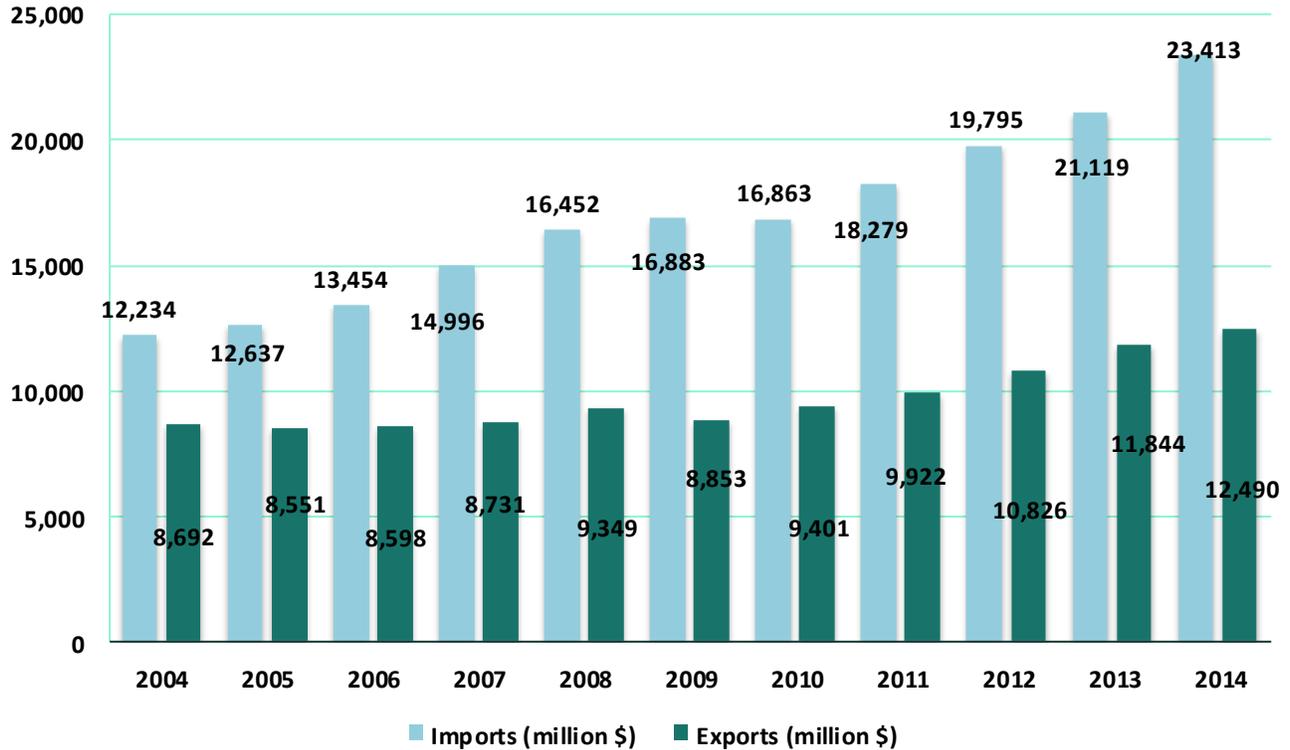
Over 50% of the \$20 billion in imported food products can be produced in Ontario...[and] if Ontario production expanded to replace 10% of the top fruit and vegetable imports, the Ontario economy could benefit by nearly an additional quarter of a billion dollars in GDP and 3,400 more FTE jobs. As well, with fewer imports, transportation requirements to ship food from out-of-province supply sources also decrease, reducing the environmental impact of the food system.⁶⁶

According to data on agri-food trade by commodity group, the leading commodities exported over the last 10 years, and still at the top of exports in 2014, are grain and grain products and oilseed and oilseed products, all commodities that Middlesex-London specializes in. The leading commodities imported into the province over the last 10 years, and still at the top of imports in 2014, are fruit, nuts and vegetables.⁶⁷ This confirms that Middlesex-London's farmland and primary food production is tied closely to both commodity markets and the export trade. Based on the way the food system is currently organized, this means the ability for the area's local food system to meet the demand for other key commodities, such as fruit, nuts and vegetables, is very low. However, as noted above, based on the surface soil textures and the physical and climatic capability of the land in Middlesex-London, the natural conditions do not limit farms from diversifying their crop production in a concerted effort to substitute imports from out-of-Province or out-of-Country.

⁶⁶ Atif A. Kubursi et al, *Dollars & Sense: Opportunities to Strengthen Southern Ontario's Food System*, Greenbelt Fund, The J.W. McConnell Foundation, and Metcalf Foundation, January 2015, Print, at p. 10.

⁶⁷ Ministry of Agriculture, Food and Rural Affairs, "Ontario Agri-Food Trade by Commodity Group, 2004-2014," Adapted from Statistics Canada, International Trade Statistics, March 2015.

Figure 26: Ontario Food Import/Exports, 2004-2014 (Source: Ontario Agri-Food Trade by Commodity Group, 2004-2014 Statistics Canada, International Trade Statistics)



Local and Community-based Food Production

Community gardens are a positive indicator of local and community-based alternative food activity. They not only contribute to food security from a production standpoint but they also bring people together—often from lower socioeconomic backgrounds—to learn about, grow, and access fresh and healthy food. There are 19 community gardens that span across the city of London (Figure 27), with a total of 528 plots (Table 18). Of the total available plots, “468 community garden plots were rented in London in 2014, [and] 50.9% of households renting a plot had a household income of \$24,000 or less.”⁶⁸ The fact that 94% of the community garden plots are rented suggests a very high degree of utilization.

In addition to these community gardens, school gardens bring the production of food into the classroom through empowering children with the knowledge of where their food comes from, how it is grown, and how to prepare it. The Thames Valley District School Board has 15 schools that have gardens and/or planter boxes on site. Within the London District Catholic School Board, the Urban Garden Project at John Paul II Secondary Catholic School (partially funded and supported by the Ontario Student Nutrition Program London-Middlesex) is a great example of how an outdoor learning space has been developed to teach students about sustainable

⁶⁸ London Poverty Research Centre, *A Guide to Current and Emerging Practices in Food Security*, 2014, Print, at p. 28.

agriculture while providing healthy breakfasts, 3 times per week, to approximately 250 students.⁶⁹

Figure 27: London Community Garden Locations

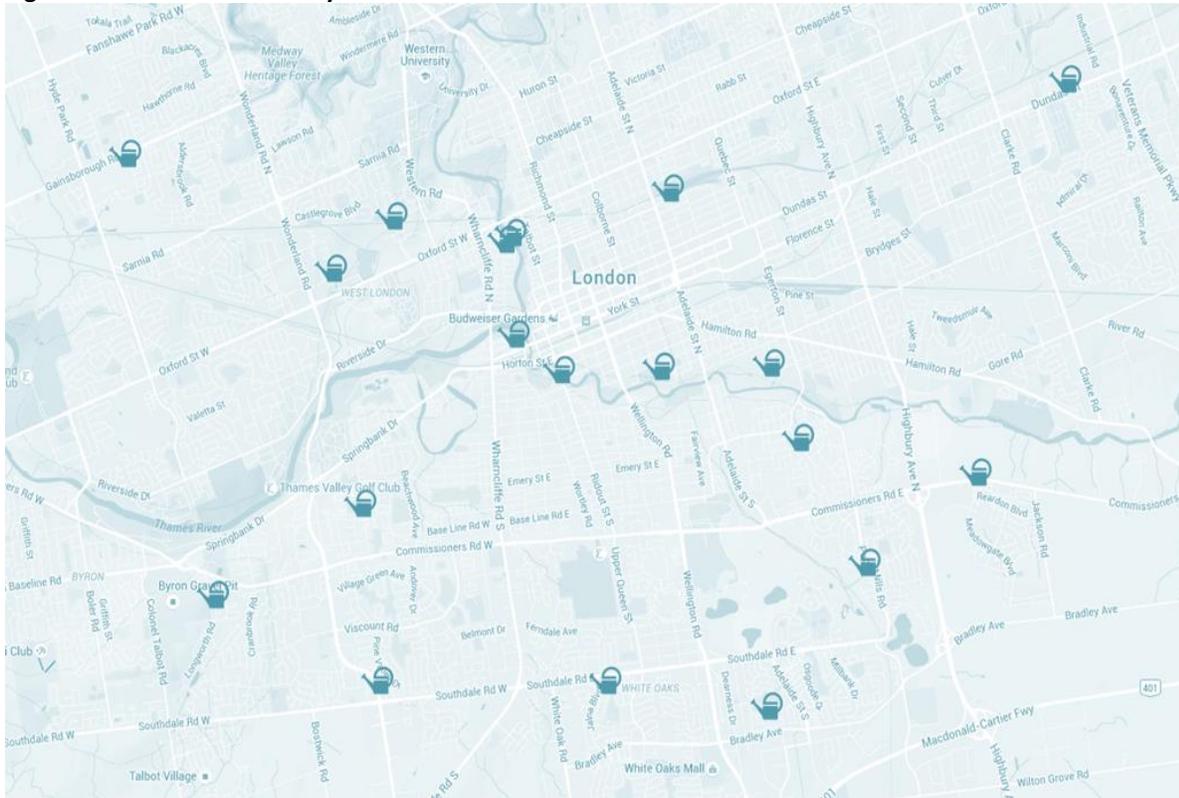


Table 18: Total Number of London Community Gardens, with Number of Plots (Source: London Community Resource Centre: <http://lcrcc.on.ca/services/garden-locations>)

Name of Garden	Number of Plots	Address
Anne Street Garden	28	20 Ann Street London, ON N6A 1P9
Berkshire Community Garden	48	510 Berkshire Drive London, ON N6J 3S1
Blackfriars Community Garden	22	2 St Patrick Street London, ON N6H 1P3
Carling Heights Community Garden	36	652 Elizabeth Street London, ON N5Y 4T7
Church of the Ascension	10	2060 Dundas Street London, ON N5V 1R2
Glen Cairn Community	8	410 Scenic Drive

⁶⁹ Investing in Children, “The Urban Garden Project: A First-of-Its-Kind Outdoor Learning Space,” June 24 2015, Web, at <http://investinginchildren.on.ca/blog/2015/6/24/the-urban-garden-project>.

Name of Garden	Number of Plots	Address
Garden		London, ON N5Z 3A8
Dillabough Garden	24	58 Dillabough Street London, ON N5Z 2B8
Meadowlily Garden	24	1610 Commissioners Road East London, ON N6M 1E8
Meredith Community Garden	17	419 South Street London, ON N6B 1C1
Nicholas Wilson Garden	15	16 Fitzroy Place London, ON N6E 1J1
Pond Mills Garden	20	451 Pond Mills Road London, ON N5Z 4Z3
Proudfoot Garden	40	693 Proudfoot Lane London, ON N6H 4Y7
Reservoir Garden	56	552 Crestwood Drive London, ON N6K 1Y1
Riverforks Garden	42	17 Becher Street London, ON N6C 1A4
Thames Garden	45	25 Ridout Street South London, ON N6C 3W6
University Heights Garden	14	290 Trott Drive London, ON N6G 1B5
Westview Garden	30	1000 Wonderland Road South London, ON N6J 4M1
West Park Community Garden	32	955 Gainsborough Road London, ON N6G 5C9
White Oaks Garden	17	1901 Jalna Boulevard London, ON N6E 3V9
Total: 19	528	

3.2 Gaps in Knowledge

A significant amount of information on food production in Middlesex-London was captured; however, a few pieces of data were not available at the time of this project. One example is the number of on-farm sustainable agricultural policies. While information on the number of farms participating in Environmental Farm Plans (EFP) was available the specific goals and measures used and implemented is unknown and there is no way of currently tracking progress. Having an EFP is a good start but more information will need to be collected in order to assess real progress. In addition, quantitative information on independent farm policies and practices was not available.

Next, the amount or proportion of food being sold locally versus the amount of food being sold into the wider system—Provincially and beyond—was unavailable. This data would require standardized tracking and tracing of local food sales and procurement both across and in between markets, which is not a current or standardized practice in Ontario.

Finally, while the findings suggest that diversifying crops in the area may be an opportunity for change, there was insufficient evidence on soil and climatic conditions for building a case for identifying specific crops to specialize in.

3.3 Strengths and Assets

Middlesex-London has a significant number of assets that are unique to food production. The most notable ones are living assets; that is, assets related to what is grown in the area and its natural environment. During the community engagement process, members noted that Southwestern Ontario is one of the world's most robust and lush agricultural areas—with a climate that is conducive to growing a number of things—and Middlesex-London is located right in the centre of this region. The high quality of rural agricultural land and soil is one of the reasons the area has a significant amount of farmland, of which a high percentage (85%) is used as cropland.

While Middlesex-London is a major crop producer of commodity corn—an asset because it means high farm cash receipts—the area also specializes in green pea, sweet corn, and green and wax beans. In fact, Middlesex-London controls high percentages of the Province's production of these crops. More than half of the farms (54%) located in the area are small-to-medium in size, being between 1-129 acres. As such, these 1265 farms need to be considered as assets in and of themselves.

Another living asset related to alternative food production is the high number of community gardens, which have most of their plots rented. A cultural and spiritual asset identified by key stakeholders, which complements the number of community gardens, is the strong community garden network and a high interest in community gardening. A developing social asset, the strong community shared agricultural model that is starting to flourish in the area, provides further evidence of the interest in and support for local and alternative food production.

Finally, the age of farm operators is increasing across Middlesex-London, similar to the Province; however, this can be seen as an intellectual asset because of the pool of farm knowledge that they possess, which can be passed along to younger generations through mentorship and knowledge sharing programs.

The table below (Table 19) lists all of the strengths and assets identified through the community food assessment process that pertain to this section of the report (please see 1.2 for Asset Legend).

Table 19: Strengths and Assets within Food Production

FOOD PRODUCTION						
						
6. Significant amount of farmland (high percentage [85%] used as cropland)						
7. Significant acreage dedicated to oilseed and grain production						
8. High number of community gardens (most plots are rented)						
9. School gardens						
10. High quality rural agricultural land/soil						
11. Climate (conducive to growing a variety of things)						
12. Community and residential greenhouses						
13. Roof top gardens and apiaries						
14. Sandplains aquaculture						
15. London's Carolinian Food Forest						
16. Food forests						
17. Southwestern Ontario is one of the world's most robust and lush agricultural areas						
						
18. Small farms (more than half of farms [54%] are small-to-medium sized 1-129 acres)						
19. Vacant land						
						
20. Farming knowledge that can be passed down from old to young						
21. Many local producers						
22. Master Gardeners of London						
						
23. Strong community garden network and interest						
24. Beautiful Edibles						

FOOD PRODUCTION



25. Specialization in and high percentage of province’s green pea, sweet corn, and green/wax bean production

26. Storybook Gardens (demonstration garden)



27. Strong CSA model starting to flourish

28. Ontario Federation of Agriculture

29. Middlesex 4-H Association

30. Agricultural societies

31. Horticultural societies

32. Producer associations

33. London Food Bank Community Harvest Program

3.4 Areas to Cultivate

Three areas to cultivate in Food Production were identified as part of the community food assessment process. To start, much agriculture in Middlesex-London is focused on the large-scale production of commodity crops for export. This is leading to a decrease in the number of small-scale producers and an increase in the number of large and more powerful producers. As noted above, the number of farms in the area decreased by 25.6% from 1991 to 2011 and, of the 2052 farms in 2011, 64% were involved in oilseed and grain farming. While some stakeholders accepted that this is the result of the interplay of existing market forces, others indicated that planning policy, the cost of land, unequal government support, are all contributing factors to this situation. Therefore, one area to cultivate in Middlesex-London’s food system is small-scale agriculture. This includes alternative agriculture and food production in both urban and peri-urban areas; that is, the area between town and country. Viewed as living assets, such small-scale plots are all worth growing and protecting.

Although the use of sustainable production methods is increasing across Canada, of 2052 farms in Middlesex-London in 2011, only 27 reported certified organic products for sale while 3 reported transitional organic products for sale. The number of farms producing organic products has increased from 8 in 2006 but this is because there were 24 farms transitioning to organic at that time, whereas there were only 3 farms transitioning to organic in 2011. *Organic farming is only one manifestation of sustainable agriculture*, and many Middlesex-London

farmers have been attending Environmental Farm Plan workshops, as well as, preparing Environmental Farm Plan action plans. However, stakeholders identified a lack of knowledge around both the definition of sustainable as well as the diversity of sustainable production methods available to farmers, not to mention the costs associated with transitioning away from more conventional farming methods. It is also important to note that the **community identified** sustainable agriculture as a second area to cultivate.

Finally, as noted above, the average age of farm operators is increasing. As a result, this underlines the need to plan for and support future farmers. However, there are significant barriers for new farmers, such as increased land prices, the cost of meeting agriculture standards, and limited access to resources. Key informants empathized with the fact that farming is far more difficult than it used to be in terms of financial viability and, because existing family farms are deep into oilseed production, new generations will have to keep cash cropping in order to make money. Community members also noted that, along with the stigma attached to farming, it is difficult to bridge the knowledge gap between experienced and new farmers. Therefore, the third Food Production area to cultivate in Middlesex-London is building and supporting a community of new generation farmers.

3.5 Opportunities for Change

As part of the community survey (see Community Engagement) residents of Middlesex-London were asked to rate their level of agreement with three statements related to food production. The statements follow:

- It is important that as local farmers get older, others are supported to start farming;
- It is important that food is grown or farm animals are raised using sustainable practices in Middlesex-London; and
- It is important that there is support to grow food in the City.

On the whole, a large majority of community members “strongly agreed” with each of the three statements (Figures 28, 29 and 30).

Figure 28: Statement: It is important that as local farmers get older, others are supported to start farming

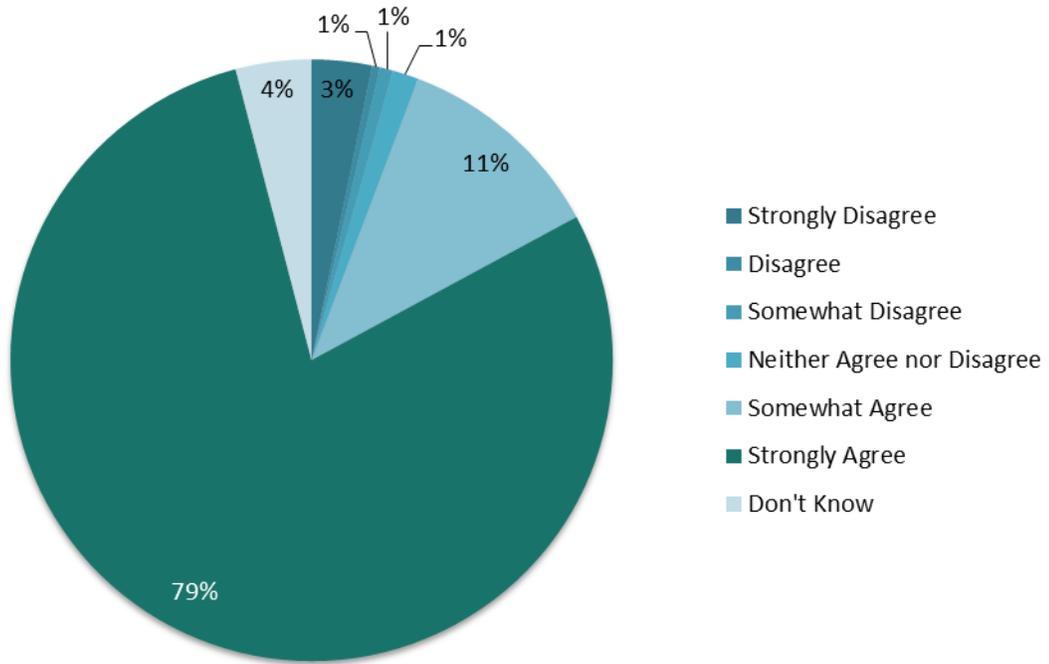


Figure 29: Statement: It is important that food is grown or farm animals are raised using sustainable practices in Middlesex-London

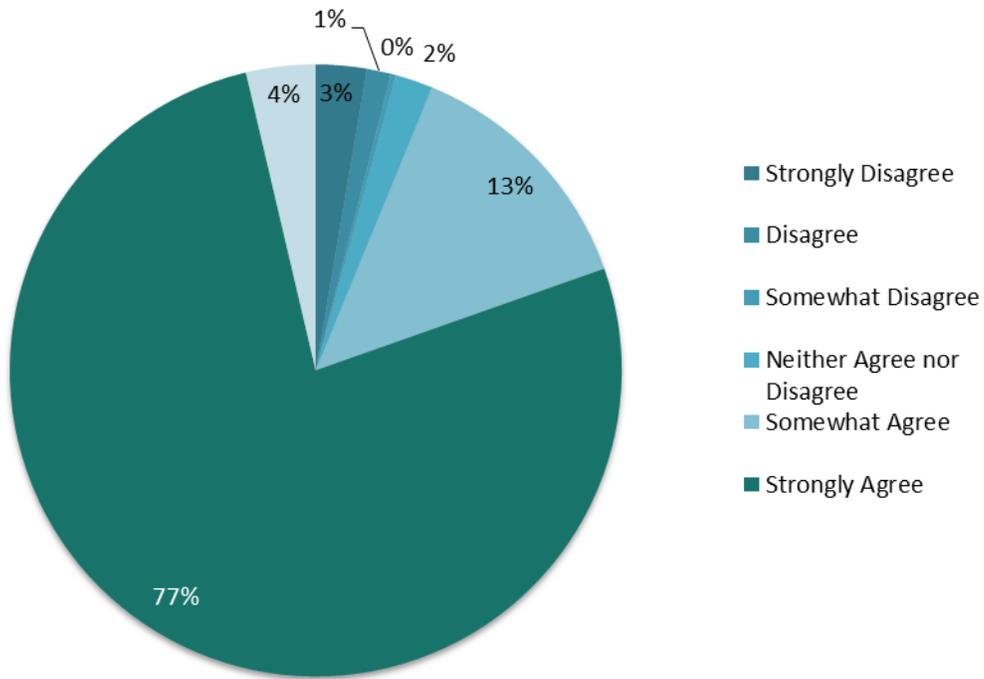
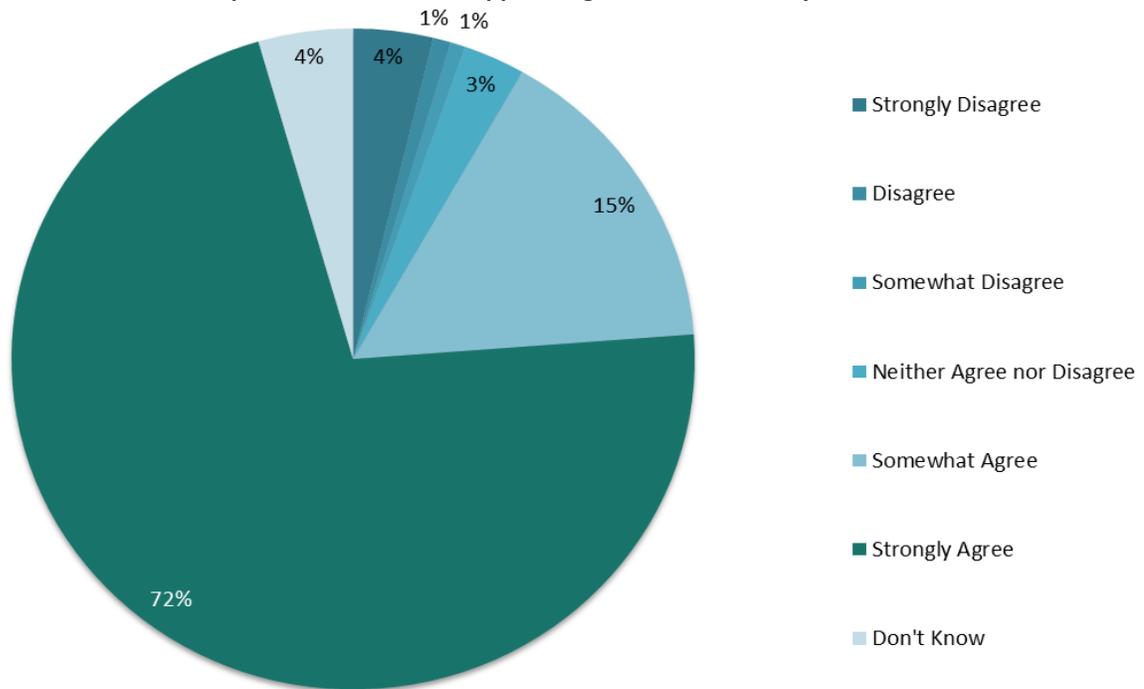


Figure 30: Statement: It is important that there is support to grow food in the City

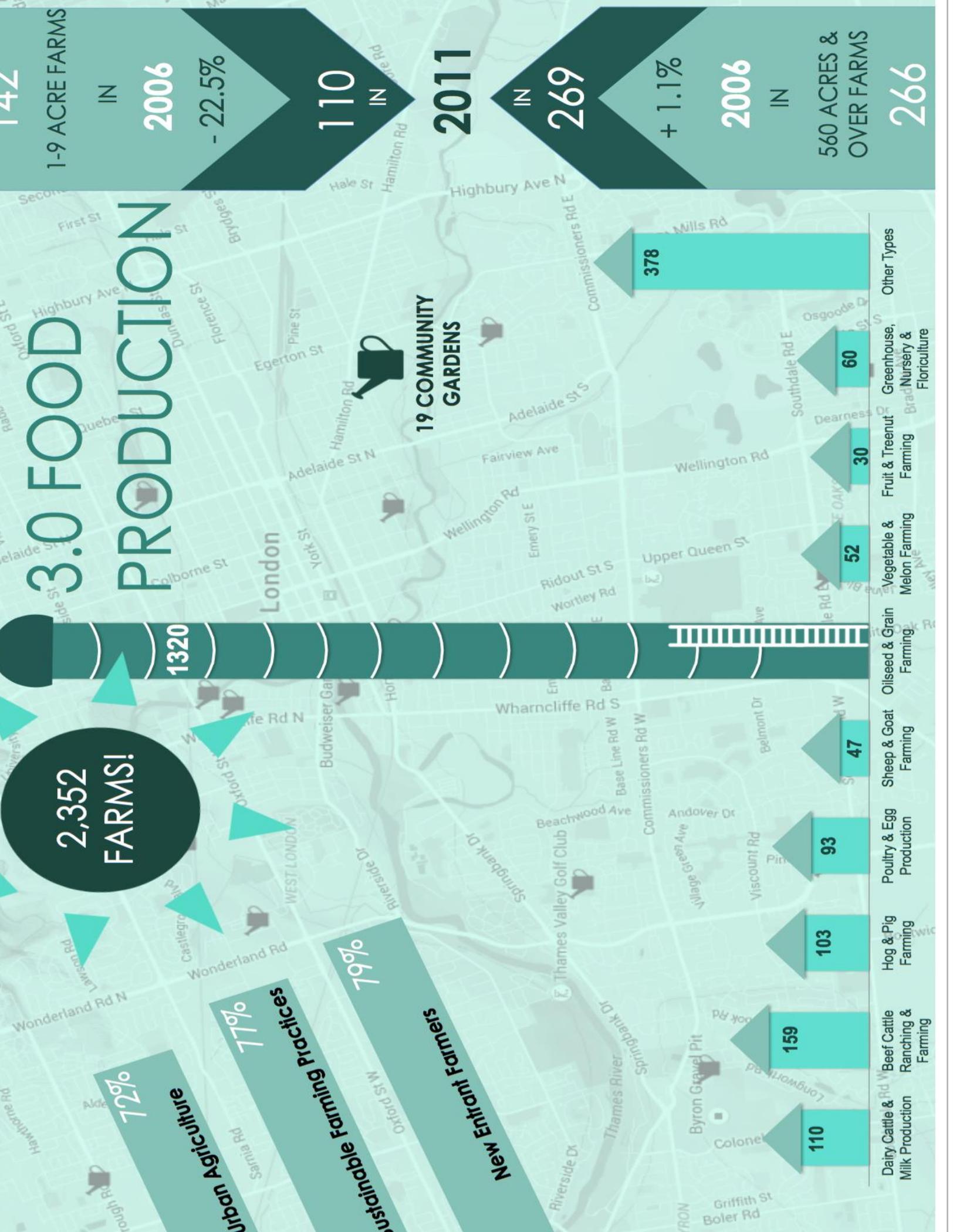


As part of the community engagement process a number of key opportunities to cultivate changes in food production in Middlesex-London were unearthed by key informants and community members. To support small-scale producers, it was suggested that land zoning policy be developed to accommodate smaller farms. Assisting small local producers in marketing and retailing their product was another opportunity that came up, and the establishment of a local food hub was suggested as a way to do this. A local food hub could collect and store product from small producers in the area and even help to facilitate the logistics involved in alternative distribution. The reallocation of funding for large-scale farming to small-scale farmers was another opportunity that stakeholders identified to support small-scale agriculture. Community members noted that this should be coupled with training farmers to scale up and manage their own growth.

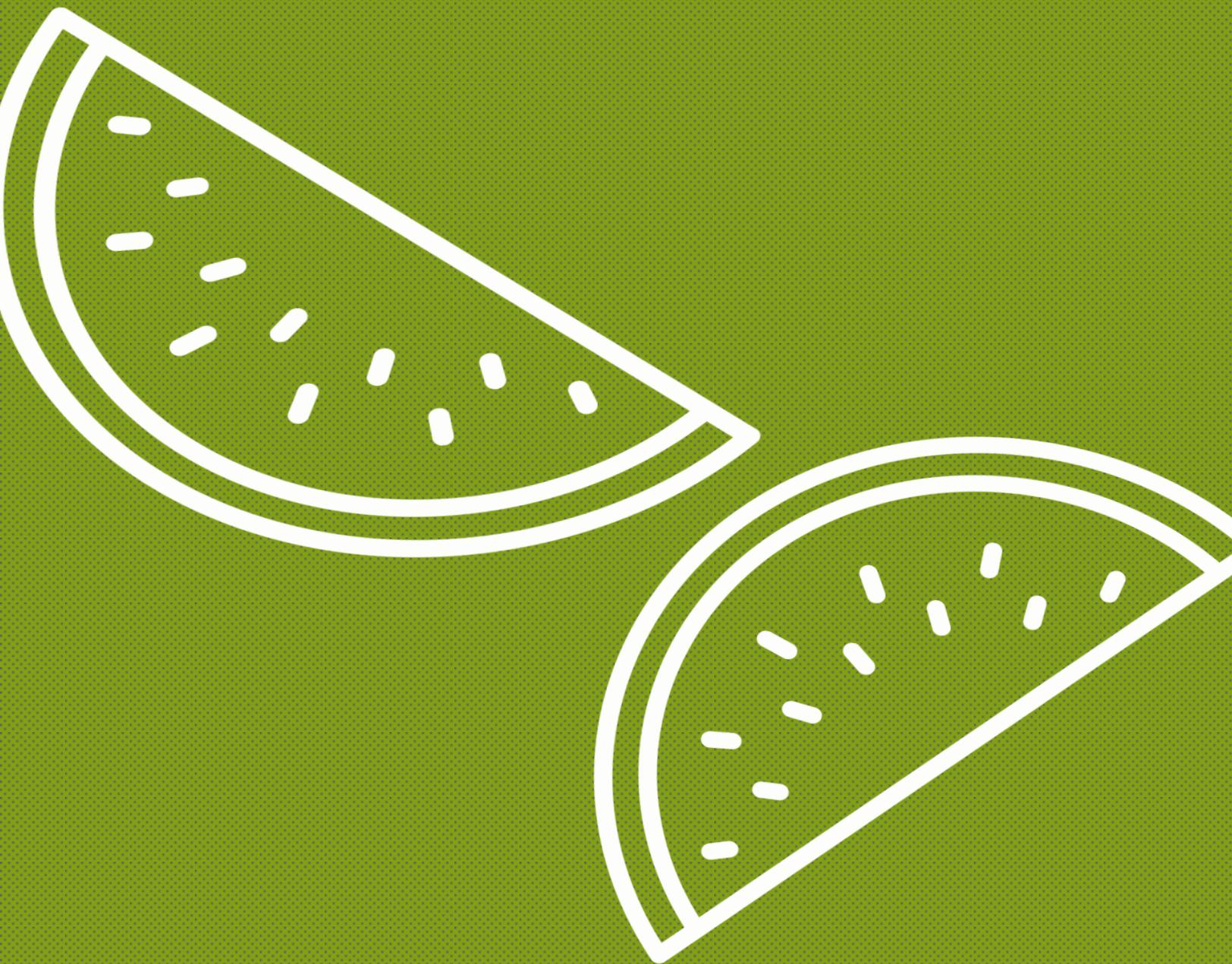
Numerous opportunities to promote sustainable agriculture across Middlesex-London were identified. Some examples include: using regulation to ensure that animal farming is ethical and humane; incentivizing and rewarding sustainable farm practice while promoting it as a career choice; and supporting farmers who choose to move to towards more sustainable farming practices and renewable energy sources. In addition to initiatives directed at the start of the supply chain, community members suggested that an acceptable definition of sustainable needs to be created. With standardized information on sustainable production methods and tracking tools, as well as the value of implementing them, the public can then be made better aware of the importance of consuming local, sustainable food. Similarly, champions of sustainable production can also be celebrated.

To support new and young farmers while leveraging the knowledge of an existing but aging farm population, community members see there being an opportunity to increase public education around farming and promote agriculture as a career. The development of support programs, such as farm mentorship and internship programs and farm incubators, were presented as potential opportunities for change. These types of programs could allow youth to be exposed to agriculture before deciding on it as a career; however, community members suggested that if and when new generations decide to farm then there needs to be assistance for them in securing land. Both subsidization and the protection of new farm businesses through cost-neutralizing or guaranteed income programs were suggested as ways to do this. Working with the existing agricultural community was identified as a key component of regional succession planning and vital to the realization of new farming generations.

Finally, the need to support urban agriculture was a theme that flowed throughout the community engagement process. The creation of more community gardens was identified as a key opportunity for the community. Supporting other urban food projects, such as rooftop gardens, the planting of food producing trees in public spaces, removing barriers to front-yard vegetable gardening, and making use of existing public space to grow food, were all noted as great opportunities to grow alternative food production in Middlesex-London.



4.0 FOOD ACCESS AND DISTRIBUTION



4.0 FOOD ACCESS AND DISTRIBUTION

4.1 Findings

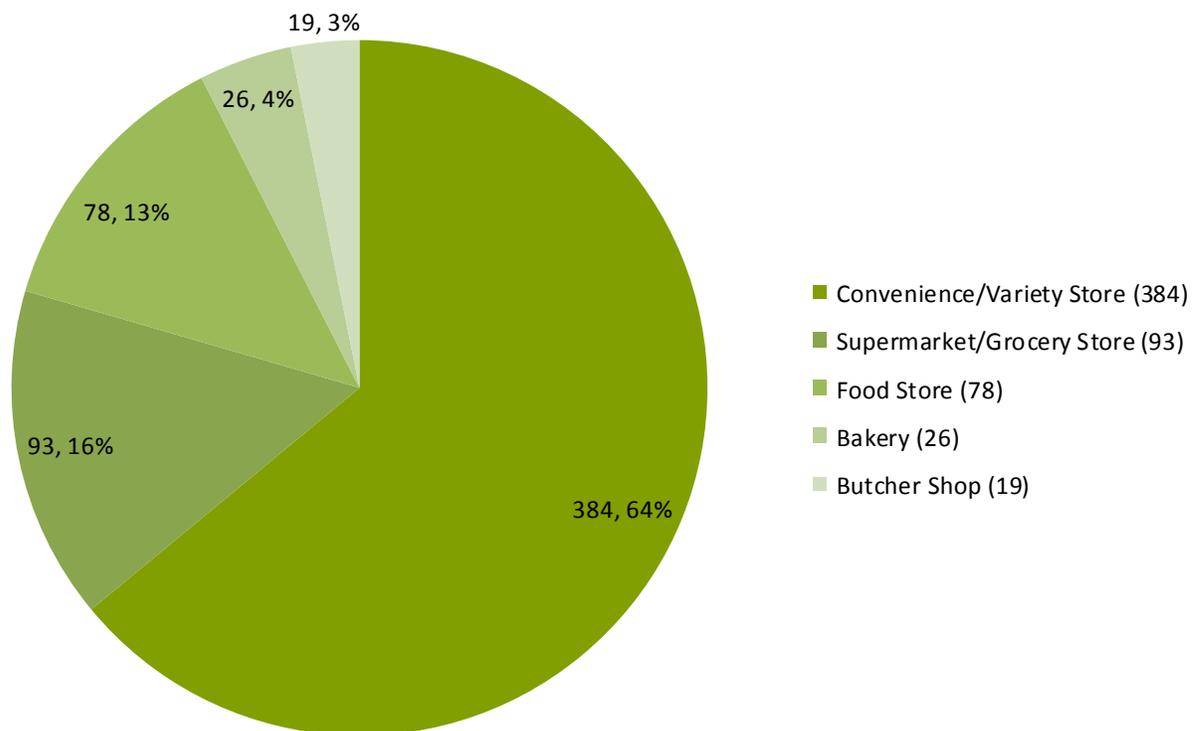
An overview of an area's food access points, at both the retail and service levels, alongside an account of food system stakeholders involved in distributing and processing food, can help to build a better understanding of both how and what kinds of foods are being accessed by the public in Middlesex-London.

The objectives of this section are:

- To provide an overview of food access points and availability of local food; and
- To provide an overview of the distribution system in the area.

This section explores the breadth of food access points in Middlesex-London, as well as the food distribution and processing activity in the area, by looking at who is selling, serving, distributing, and processing food. While existing evidence does not allow for conclusions to be drawn about how much local food is moving through these channels, the information collected can be used to inform further research into the availability of local food (see section 3) in the area.

Figure 31: Number and Percentage of Food Retailers by Type in Middlesex-London, 2015 (Middlesex-London Health Unit, Environmental Health Department)

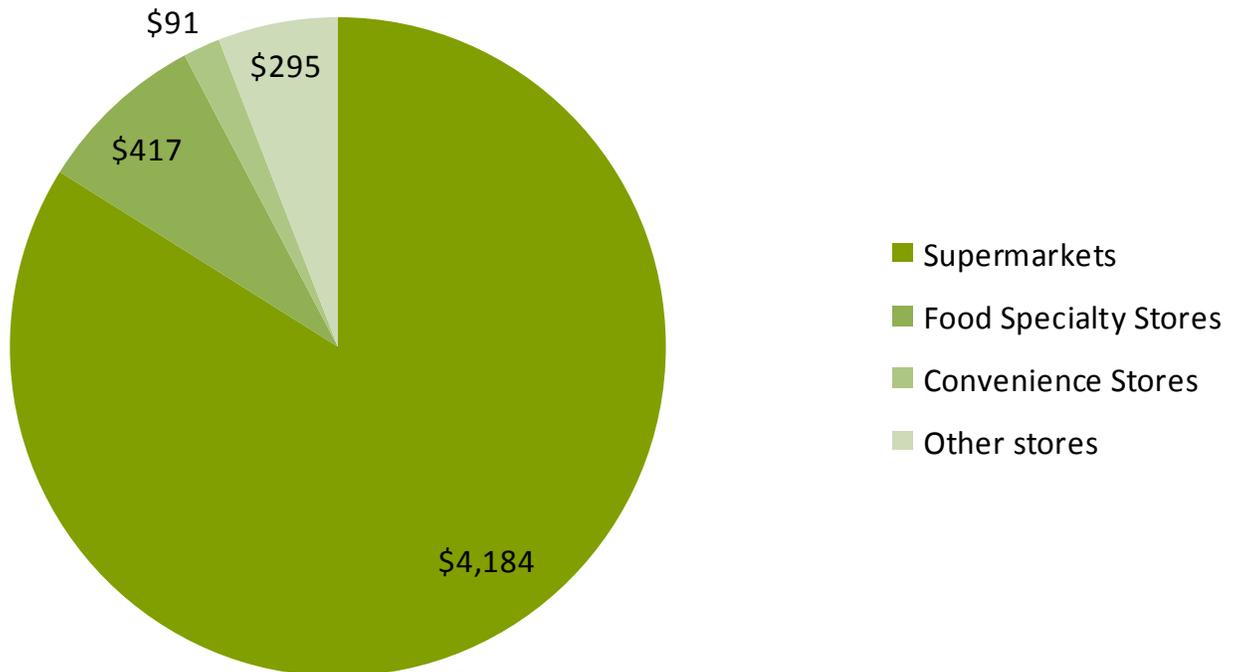


Food Retailers

The total number and type of food retailers in Middlesex-London (Figure 32) is an important indicator of where food can be accessed by people living in the area, and whether or not the food they are able to access is likely to be fresh, healthy, and coming from growers and producers in the area.

There are 600 access points for food in Middlesex-London; however, 384 of these access points (64%) are convenience or variety stores, and an additional 78 (13%) are categorized as food stores, which can range from nutrition, specialty, and health stores to gas bars and drug marts. There are an additional 26 bakeries and 19 butcher shops but combined these only make up a small percentage (7%) of the total food retailers in the area. An important group of food retailers to look more closely at are supermarkets and grocery stores. With 93 in Middlesex-London, supermarkets and grocery stores make up the second-largest percentage (16%) of the total food retailers. While their number is low in comparison to the total number of food retailers, data on household food expenditure at local stores underlines how important they are as access points for fresh healthy food (Figure 32).

Figure 32: Annual Household Food Expenditures in Middlesex-London, by Store Type (Source: PCensus, Food Expenditures Summary, 2014)



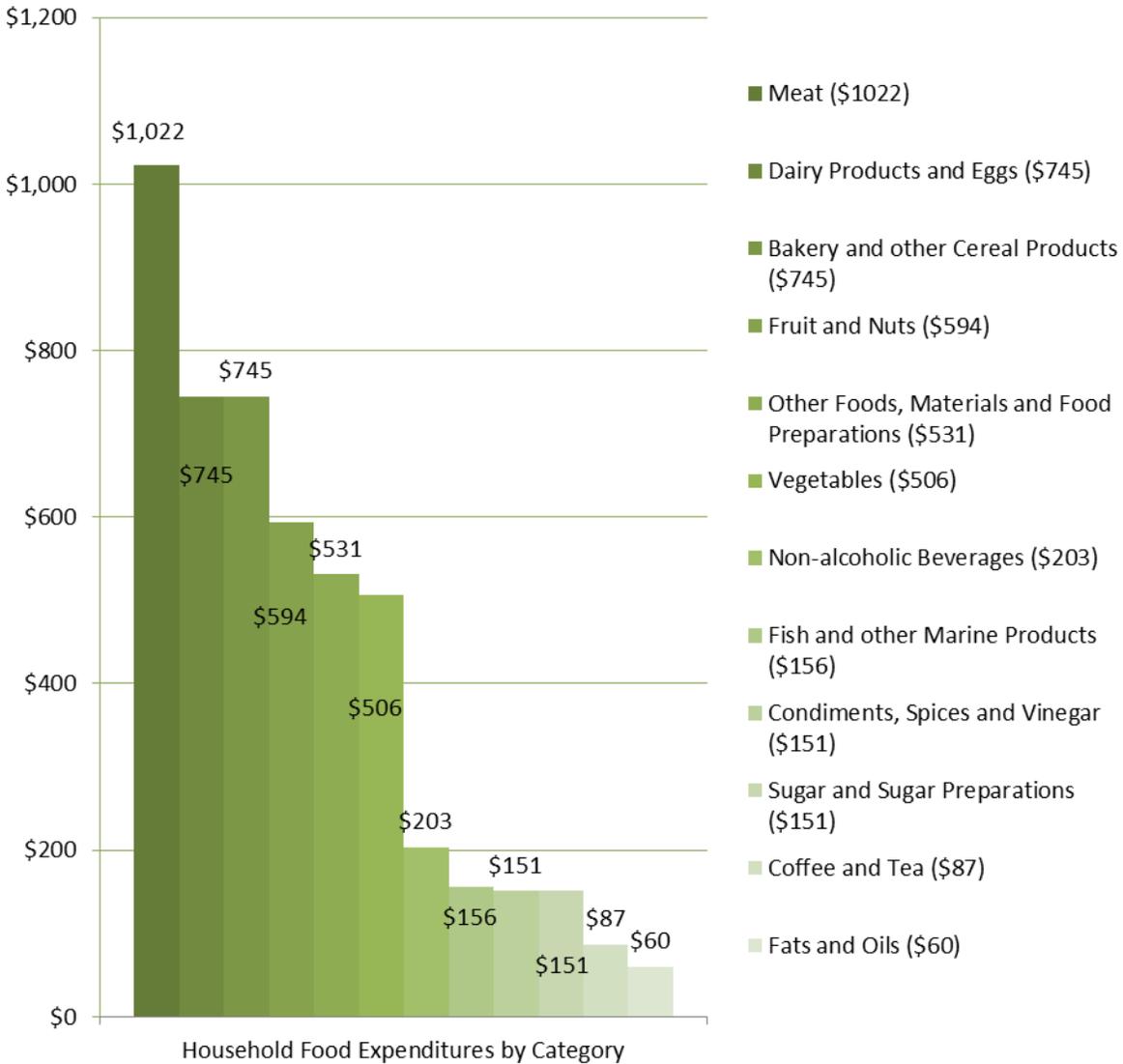
In 2014, the total annual food expenditure in Middlesex-London was \$1,441,544,617. This works out to \$7,427 per household. Of this total household food expenditure, 69% (\$5,156) of food was purchased from retail stores, and 97% of these purchases (or \$4,986) were made locally and on day trips. The remaining 31% (\$2,271) of food purchases were made at restaurants, 24% of which (\$1,808) was purchased locally and on day trips.⁷⁰ This means that the vast majority of food expenditure by Middlesex-London residents is made up of food purchased not only close to home but also from food retailers. As a result, these retailers are ideally positioned as potential agents of food system change that can be partnered with to increase local food consumption.

Of the \$4,986 that households in Middlesex-London spent in 2014 on food at local retail stores, they spent \$1,022 (20%) on meat, \$745 (15%) on dairy and eggs, \$745 (15%) on baked and other cereal products, \$594 (12%) on fruits and nuts, and \$506 (10%) on vegetables (Figure 33). According to the Consumer Price Index for Ontario, in November 2015 the price of fresh or frozen meat (excluding poultry) is significantly higher (62.7%) than in 2002. This price increase is almost twice the price increase of fresh fruit (32.8%) and slightly more than twice the price increase of fresh vegetables (31.1%).⁷¹ Considering that meat makes up 20% of the total household food expenditure at local retailers in Middlesex-London, decreasing meat consumption while increasing the consumption of both fresh fruits and vegetables can lead to significant cost savings, not to mention significant health benefits for residents, including decreasing their chances of developing dietary-related diseases.

⁷⁰ Statistics Canada, "Food Expenditure Survey, by Region," 2014.

⁷¹ Statistics Canada, "Consumer Price Index, Food, by Province (Ontario), Monthly," 2015, Web, at <http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/cpis08g-eng.htm>.

Figure 33: Annual Household Food Expenditure by Category (Purchased Locally from Stores) in Middlesex-London (Source: PCensus, Food Expenditures Summary, 2014)



When relating the types of food purchased by households in Middlesex-London at stores locally (Figure 33) to the types of stores that these households purchase from (Figure 32) and the number of food retailers in the area (Figure 31), opportunities to use both primary and secondary food retailers present themselves. Even though there are hundreds of small food access points in Middlesex-London—including convenience, specialty, and other food stores—households spend the majority of their food budget (84% or \$4,184) at local supermarkets and grocery stores in Middlesex-London, which make up only 16% of the total food retailers in the area. This confirms that supermarkets and grocery stores remain the primary retail points for Middlesex-London residents to access fresh food. The price of food in supermarkets and grocery stores, in addition to the variety, standardized sizes, quantities and quality of food available are no doubt contributing factors to why they receive the majority of household food dollars. Additionally, a culture of both convenience and dependence has developed around

supermarkets and grocery stores that position them as primary food access points. As a result, an opportunity presents itself to work directly with larger retailers to increase their procurement, marketing and sales of fresh local fruit and vegetables can help to increase local food consumption and health at the household level. The second opportunity relates to the fact that there are a number of food access points, such as convenience and variety stores, which may be underutilized as channels to increase local food consumption. By working with these secondary food retailers to increase their procurement, marketing and sales of local food, residents in Middlesex-London will have increased opportunity to purchase fresh healthy food.

Alternative Food Retail Points

Public farmers' markets are another key access point for fresh local food. In Middlesex-London there are a number of farmers' markets (18) and the majority of these (12) are located in London. Of the total farmers' markets, 6 operate year-round while the remaining 12 operate seasonally. It is important to determine the number of market vendors at these farmers' markets that are actually farmers in the area because farmers' markets are a great place to connect consumers directly to the producers of their food. This type of relationship building can help to cultivate a local food culture, increase food literacy, and grow interest in the food and farming industries. Equally important information to collect includes: the amount and types of local food that farmers' market vendors are selling during peak growing seasons; how much of the food they are selling is produced by themselves; and what percentage of their total sales are farmers' markets sales. This data can help to determine how connected the start of the food supply chain is to alternative food access points, such as farmers' markets, as well as how important such access points are to the marketing of local food. For these reasons, gathering information on market vendors and tracking and tracing the products they sell at farmers' markets are key areas for further research.

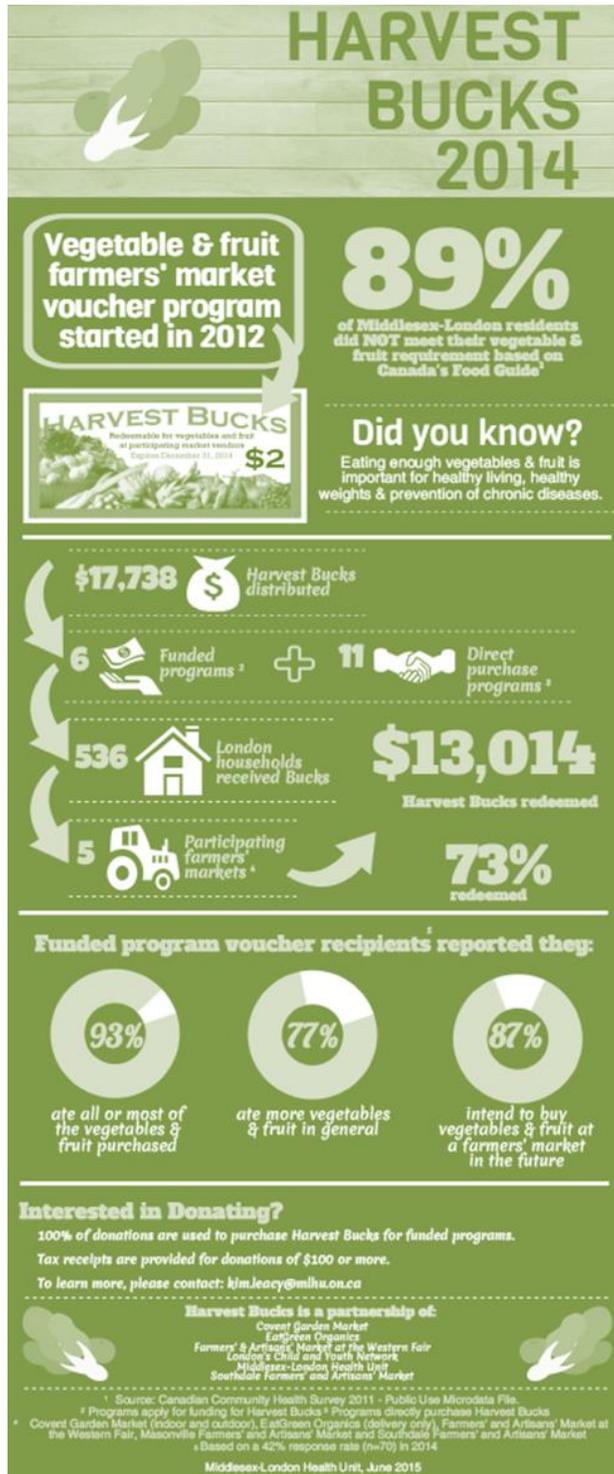
Since 2012 the Middlesex-London Health Unit has managed the Child and Youth Network's Harvest Bucks voucher program on behalf of a multi-stakeholder group. The program helps to improve access to local food—particularly for vulnerable populations—by providing vouchers (valued at \$2 each) that can be used at participating farmers' markets in London to purchase fresh vegetables and fruit.

The primary goals of the Harvest Bucks program include:

- Increasing access to and consumption of fresh vegetables and fruit;
- Increasing awareness and knowledge of, and comfort/familiarity with, farmer's markets and supporting local producers; and
- Increasing the comprehensiveness of local community-based food programming.⁷²

⁷² Middlesex London Health Unit, Harvest Bucks, June 2015, Web, at <http://www.healthunit.com/harvest-bucks>.

Figure 34: Harvest Bucks Impact, (Source: Middlesex-London Health Unit, 2014)



While both individuals and organizations can purchase Harvest Bucks directly, organizations running community programs can also apply for partially or fully-sponsored Harvest Bucks. 100% of financial donations made to the program are used to sponsor organizations applying for Harvest Bucks. In 2014, \$17,738 Harvest Bucks were distributed through 6 funded programs and 11 direct purchase programs, 358 London households received Harvest Bucks and 73% (\$13,014) of these were redeemed at 5 participating farmers' markets.⁷³ In 2015, four farmers' markets participated in the Harvest Bucks program, including: the Covent Garden Market, the Farmers' and Artisans' Market at the Western Fair, the Masonville Farmers' and Artisans' Market, and the Soho Market.

In addition to farmers' markets, Middlesex-London is dotted with farm gate retail operations (Figure 35), where consumers are invited to go directly to the farm to pick-your-own or purchase food that is harvested, grown, raised, or produced on the farm itself. In total, there are 30 farm gate retail operations, selling local food products. Some of these farm operations include food service as well, and have become ideal spaces for people to meet or host special events. Arrowwood Farm is one example of a farm that offers not only u-pick blueberries but also a beautiful space, called The Harvest Table, where parties can enjoy the catering and hospitality that sets this business apart. A great video of Arrowwood Farm & The Harvest Table is featured on the new Middlesex County website.⁷⁴ In consideration of the number of 1-69 acre farms located in Middlesex-London, of which there were 748 in 2011, there is much opportunity to grow the number of farm gate operations in the area by supporting farmers in carrying out both farm gate sales and other on-farm enterprise.⁷⁵

⁷³ Middlesex London Health Unit, Harvest Bucks, June 2015, Web, at <http://www.healthunit.com/harvest-bucks>.

⁷⁴ Middlesex County, "Business Profiles - Arrowwood Farm," Web, at <https://www.investinmiddlesex.ca/business-profiles/21>.

⁷⁵ See section 3.2 Food Production.

Food Service

1452 different foodservice outlets span across Middlesex-London (Figure 37). Restaurants make up over half (54%) of the total number of these businesses and the second largest group (24%) is made up of take-out food establishments. The remaining 22% of foodservice outlets is made up of banquet facilities, cafeterias, snack bars or refreshment stands, cocktail bars, ice cream and yogurt vendors, and mobile food vendors. Due to the overwhelming number of restaurants (788) in Middlesex-London, in comparison to all other foodservice outlets, they should be considered as vital assets in future action planning. Restaurants are perfectly positioned to be intermediaries between local food producers and consumers because they interface with the public on a daily basis and communicate directly to the consumer through multiple channels, including in-person, menus and advertisements, social media and television activity.

One way to leverage the many restaurants in the area for food system change is to encourage them to become local food champions. One way to do this is to recognize existing champions for procuring local food and showcasing both the ingredients and the people behind them on their menus. This type of promotional activity has the potential to create a race-to-the-top that has significant economic impacts. However, it is important that any public recognition of a restaurant is credible. For example, the Ontario Culinary Tourism Alliance—a not-for-profit organization working towards showcasing the province’s unique tastes of place—has developed a pan-provincial program called Feast ON (Figure 36). This program has a robust verification system that ensures participating restaurants meet specific criteria before benefiting from the marketing and promotion associated with becoming a “Certified Taste of Ontario.” It also protects consumers who are interested in supporting local food businesses by verifying the dollars they are spending (while eating at restaurants) are being used to support local growers and producers.

Healthy Living Niagara – Fuelling Healthy Bodies Pilot Project

The Fuelling Healthy Bodies (FHB) program was an initiative undertaken by Healthy Living Niagara. Healthy Living Niagara is a partnership of community groups and individuals working to make the healthy choice an available choice. The program was test marketed in three arenas in the fall/winter 2013/2014...of which only one has extended the program. [However,] five new concessions joined in late 2014 bringing the total number of participating facilities, for 2014/2015, to six.

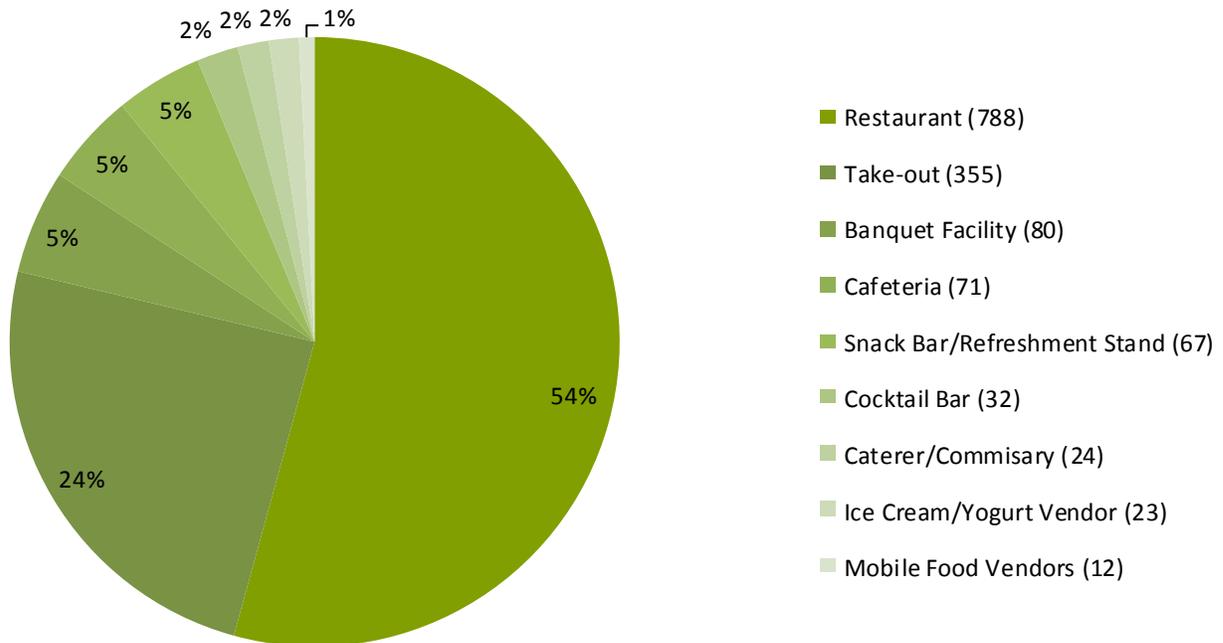
FHB aims to increase the availability of healthier food choices that meet the needs of arena and community centre patrons. The intention of this program is to improve the food environment. As arenas and community centres already support physical activity, they are perceived as a good environment to support healthy eating.

(Source: FHG International Inc., “Study to Evaluate Fuelling Healthy Bodies,” Healthy Living Niagara, June 2, 2015).

Figure 36: Feast ON – Certified Taste of Ontario, About the Program (Source: Ontario Culinary Tourism Alliance, <https://feaston.ontarioculinary.com>)



Figure 37: Percentage and Number of Foodservice Outlets by Type in Middlesex-London, 2015 (Source: Middlesex-London Health Unit, Environmental Health Department)



Emergency Food Programming

When exploring access to food through a food service lens, the availability and accessibility of charitable food relief for people in need is important to consider. The City of London has 33 meal programs,⁷⁶ 17 food banks,⁷⁷ and 1 Good Food Box program.⁷⁸

The 33 meal programs, offering breakfast and/or lunch and dinner, are made available at 35 locations in the City.⁷⁹ Some programs (e.g. the Salvation Army program) have more than one location; therefore, the number of locations is greater than the number of programs. A “Help Yourself Through Hard Times” resource, created by Information London, divides the City of London into nine service location codes, in order to show the geographical location of each meal program. Table 20 shows the number of meal program locations by each service location code.

⁷⁶ Information London, Help Yourself Through Hard Times: Basic Needs Services for London and Middlesex County, 2014.

⁷⁷ Information London, Help Yourself Through Hard Times: Basic Needs Services for London and Middlesex County, 2014.

⁷⁸ The Food Box Project, Web, at <http://thefoodboxproject.com/>.

⁷⁹ Information London, Help Yourself Through Hard Times: Basic Needs Services for London and Middlesex County, 2014.

Table 20: Service Areas and Number of Meal Program Locations in London (Source: Information London, *Help Yourself Through Hard Times Report*)

Service Location Code (London)	Number of Meal Program Locations
Northwest	0
Northeast	4
Central	18
Southeast	2
Southwest	0
North	3
West	1
East	7
South	2

The geographical dispersion of meal program locations in London indicates that the majority of locations are in Central London (18 locations) and East London (7 locations).

Additionally, there are 17 Food Banks in London.⁸⁰ As with the meal programs, the London Food Banks are geographically divided between nine service location codes (Table 21). Many of these food banks have satellite locations; therefore, there are more locations than food bank programs.

Table 21: Service Areas and Number of Food Bank Locations in London (Source: Information London, *Help Yourself Through Hard Times Report*)

Service Location Code (London)	Number of Food Bank Locations
Northwest	3
Northeast	5
Central	3
Southeast	3
Southwest	0
North	1
West	1
East	3
South	5

The geographical dispersion of Food Banks in London shows that these services are concentrated in South and Northeast London. Southwest, North, and West London have only one or zero food banks for those in need. Collectively, the locations of both meal programs and food banks show that the majority of emergency food services are made available in South, Northeast, Central and East London, with very little made available in Southwest, North and West London.

⁸⁰ Information London, *Help Yourself Through Hard Times: Basic Needs Services for London and Middlesex County*, 2014.

While London has numerous meal programs and food bank locations, one must also consider their effectiveness. One way of determining the effectiveness of emergency food access points is by assessing the accessibility for the populations they serve. In London, all food bank locations are only available during specific hours of the day and limit the number of times individuals can pick up food items.⁸¹ For example, central food banks in London provide food items on an emergency basis, usually a one to three day supply, and are available for pick up once a month to once every three months. So while emergency food programs are available, the frequency by which individuals can participate in the programs is severely limited. It is also notable that only two of the 25 food banks are open on the weekends. With the exception of one food bank, there are no food bank locations that are open past 4:00pm on the weekdays. The exception, Youth Opportunities Unlimited, only offers food to youth ages 16-24 years old.⁸² These operational hours impact people particularly who work 9:00am-5:00pm jobs from Monday to Friday as they would have very limited ability to access food banks. In order to gain access to emergency food they would need to take time off work, which, in many cases, may not be a realistic option.

Looking at Middlesex County, excluding London, there are 4 food banks (Table 22), and 4 meal programs, although residents of Middlesex can attend some food banks and meal programs located in London.⁸³ The lack of transportation (see below) across the rural area severely limits rural populations access to meal programs and food banks offered in the City of London.

Table 22: Food Bank Locations in Middlesex-London, excluding London (Source: Information London, *Help Yourself Through Hard Times Report*)

Municipality of Middlesex-London	Number of Food Bank Locations
Strathroy	2
North Middlesex (commonly referred to as Ailsa Craig)	1
Southwest Middlesex	1

Access to Healthy Food for Children and Youth

Children and youth in Middlesex-London’s education system are able to access fresh and healthy food through universal (open to all students) programs run by the Ontario Student Nutrition Program, a community-based and volunteer-driven provincial program that operates in Middlesex-London schools. All but one school (White Oaks Public School, which waives the \$0.25 daily fee if need be) run their nutrition programs free-of-cost to students. A portion of the cost (approx. \$1 per snack) to run these programs is subsidized by government funding (\$0.12-\$0.14 per snack) but the majority of costs (86-88%) are recovered through school fundraising activities and community partnerships. Following nutritional guidelines,

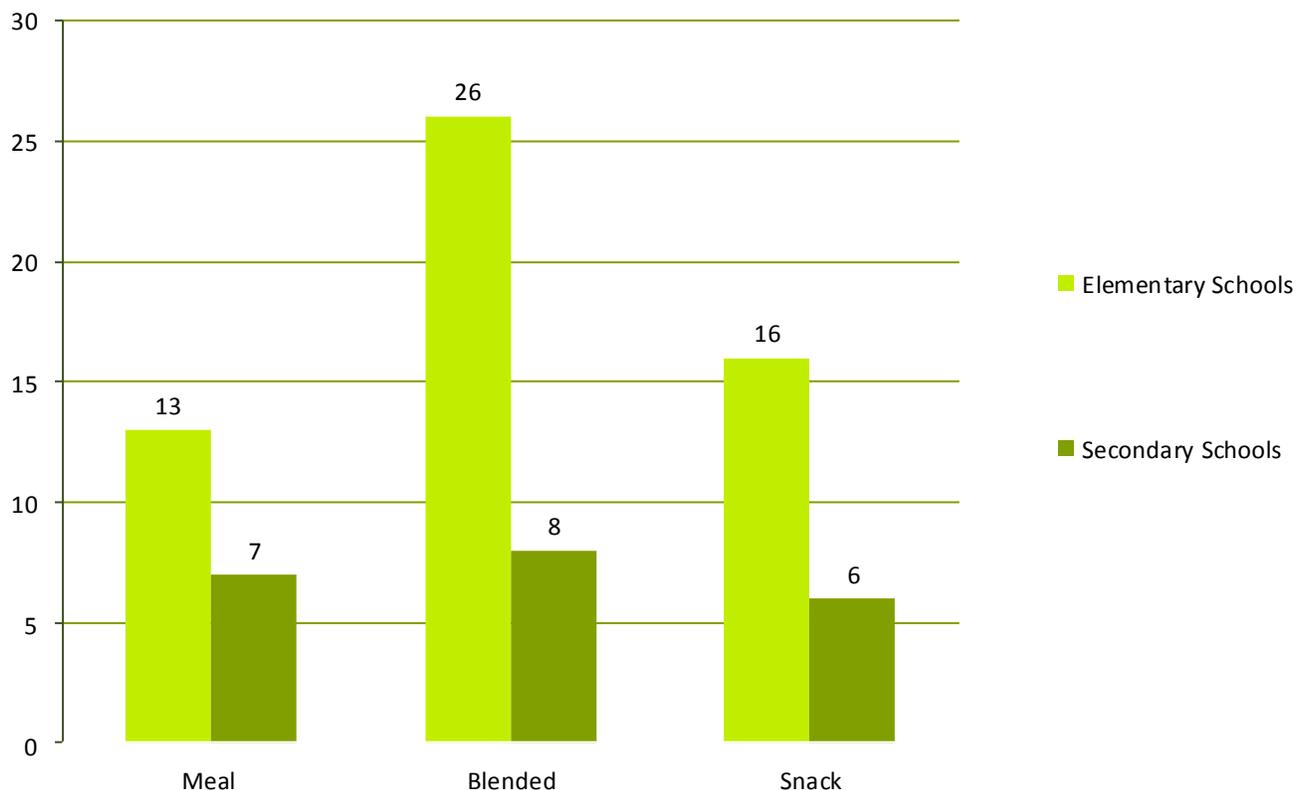
⁸¹ Information London, *Help Yourself Through Hard Times: Basic Needs Services for London and Middlesex County*, 2014.

⁸² Information London, *Help Yourself Through Hard Times: Basic Needs Services for London and Middlesex County*, 2014.

⁸³ Information London, *Help Yourself Through Hard Times: Basic Needs Services for London and Middlesex County*, 2014.

participating schools make available to students: a morning meal (3 food groups per individual), a snack (2 food groups per individual), and/or a blended food offering (1 fruit or vegetable per individual, plus access to an additional food group). In the 2014-2015 school year, 80 schools offered nutrition programs (Figure 38) and served a total of 10,140 students 1,630,626 meals.⁸⁴ As discussed in section 6.1, when compared to the total number of elementary and secondary schools in Middlesex-London, only 54% of elementary schools offer OSNP whereas almost 100% of high schools offer OSNPs.

Figure 38: Number of Elementary & Secondary Schools with Nutrition Programs, by Type, 2014/2015 (Source: Ontario Student Nutrition Program, Southwest Region)



Public Transportation

Public transportation is an important means by which persons without private transportation are able to access food. The number of public transportation routes with food access points along the route helps to shed light on how accessible food is for persons living in urban areas. The City of London has a total of 42 transit routes that have sources of food along them. It is important to determine and map the type (large or small grocery, convenience or specialty store, pharmacy) of food access points located on these routes to see if and how much fresh healthy food is accessible to persons using the public transportation system. Researchers at the

⁸⁴ Ontario Student Nutrition Program, Southwest Region, 2015, Web, at <https://www.osnp.ca/>.

University of Western Ontario have already begun this work. In their mapping of the evolution of 'food deserts' in London, they found:

... Populations in the majority of the urban census tracts had very good access to supermarkets via public transit, but the population in East London still had poorer access by transit, compounding the impacts of the food desert.⁸⁵

Rural Access to Food and Alternative Transportation System

People often access food close to where they live by using active transportation; that is, any form of human powered transportation, such as walking or biking.⁸⁶ As a result, residents living in rural areas who do not have access to private means of transportation, such as a vehicle, face an additional barrier to accessing food if the distance to food retailers is unreasonable for active transportation. According to the "Linking Health and the Built Environment in Rural Settings" report, this can have a negative impact on the health of rural residents:

A travel survey conducted in eastern Ontario showed that cars are the mode of transportation for 90% of all trips greater than 2 kilometres. Because most food shopping trips in a rural area would surpass this distance – e.g., in 2010, the average distance to the nearest grocery store for households in Middlesex County was over 5 km – rural residents without an automobile are at a considerable disadvantage when compared to their urban counterparts. Among residents with restricted mobility (e.g., due to lack of a vehicle), the need to shop close to home can translate into poorer dietary habits."

Fortunately, there is an alternative transportation system that runs separately from the public transportation system in Middlesex-London, and this system is helping people who do not have a private vehicle to access food. For example, outside of the city "shuttle programs are now used in many rural communities to address the lack of public transportation. A few examples of this exist in Middlesex-London. In Strathroy, special taxis offer a flat-rate of \$5 to reach anywhere in town. This may be cost-effective for people needing to make a big shopping trip."⁸⁷ In addition to services that bring people to food, there are food and grocery delivery services that help to bring food to people. These can range from meal delivery services to other services provided to shoppers by food retailers. Middlesex-London has 29 food delivery service providers, of which 9 provide meal preparation and delivery services and 20 (8 of which are Shoppers Drug Mart stores) provide grocery shopping and delivery services. Many of these food delivery services are directly tied to food retailers; therefore, developing the alternative transportation system in a way that ensures rural residents are provided with choice in where they purchase food can help to ensure that the alternative model is also fair.

⁸⁵ Kristian Larsen and Jason Gilliland, "Mapping the Evolution of 'Food Deserts' in a Canadian City: Supermarket Accessibility in London, Ontario, 1961-2005," *International Journal of Health Geographics*, 7:16, 2008.

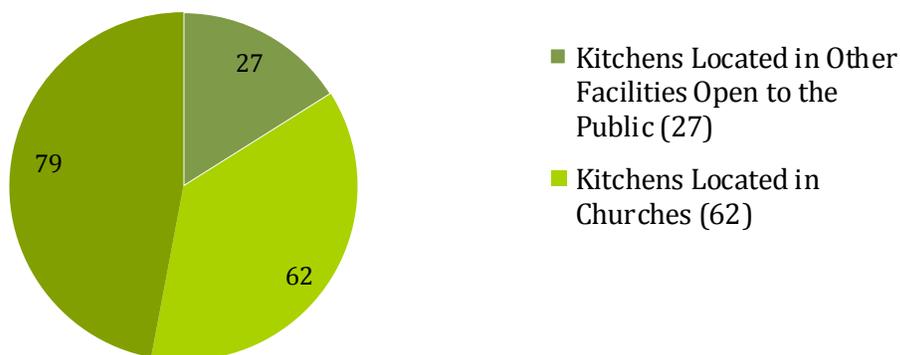
⁸⁶ Human Environments Analysis Laboratory, "Linking Health and the Built Environment in Rural Settings: Evidence and Recommendations for Planning Healthy Communities in Middlesex-London," 2013, Print, at p. 41.

⁸⁷ Human Environments Analysis Laboratory, "Linking Health and the Built Environment in Rural Settings: Evidence and Recommendations for Planning Healthy Communities in Middlesex-London," 2013, Print, at p. 32.

Community Food Access

A community kitchen, or collective kitchen is a public space where individuals from a community can come together, often after shopping together, to socialize and share food knowledge and preparation skills while reducing their cost of consumption by cooking together as a collective. There are five community kitchens according to the London Community Resource Centre;⁸⁸ however, when the number of community kitchens in an area is not available, the number of commercial kitchens in an area that are located in facilities that may be open to the public is an indicator of how many potential spaces are available to be used as community kitchens. The total number of spaces (including church spaces, banquet halls, clubs, and centres, and other facilities) in Middlesex-London that have commercial kitchens that could be used as community kitchens is 168 (Figure 39). Although, the number of commercial kitchens being rented or used by community groups as community kitchens is not known, with 168 commercial kitchens the potential for increasing access to healthy, prepared food is there. Community kitchens have many community and food literacy benefits beyond merely increasing access to healthy food.

Figure 39: Number of Commercial Kitchens in Middlesex-London Located in Facilities Open to the Public (Source: Hedgehog Database, London-Middlesex Health Unit)



Distribution

A total of 12 food businesses are involved in the wholesale and distribution of food in Middlesex-London, of which 4 are wholesalers open to the public and the remaining 8 are distributors to the retail and foodservice industries. More information on the big food distributors in the area—including how much food is distributed by them and where their drop-off and cold storage points are—is needed to assess how vital they are to the local food system. As important is information on small-scale wholesalers and distributors, as well as food storage and aggregation (or collection and storage) points in Middlesex-London because this information is key to understanding the true scope of food distribution taking place. Therefore,

⁸⁸ Roxana Roshon and Angelica Nef, “Sustainable Food Systems, Feed the Mind: An Overview of Food and Agriculture Educational Opportunities,” 2012, Print, at p. 40.

conducting further research into the wholesale and distribution of food in the area is an important endeavour to consider when planning future action.

What are CSA Farms?

YOU, the consumer, supports the local farmer. The local farmer supports the local economy by their local purchases, hiring locally, etc. Thus supporting your local CSA farmer causes a CASCADE EFFECT for the local community. This approach also helps the environment! The more local products that are purchased, the fewer products are needed to be shipped to the community, thus reducing harmful emissions from transport carriers.

Every CSA is UNIQUE. The crops grown, the size of the shares, arrangements for receiving the weekly boxes of produce and/or meats, length of season, number of seasons and share costs vary from farm to farm. Contact the farms in your area directly for their specific membership information.

While you enjoy your weekly share of the fresh, local, farm-raised food, you must also share in the lack of food should there be a drought, flood, pest problem or other issue that reduces the amount or quality of the food. You become one with the farmer in understanding and dealing with the ways of nature.

Most CSAs grow organic food and provide a diversity of vegetables and herbs in season. Some farms also offer eggs and meat either as the CSA share itself or purchased separately. In general, CSA farmers are dedicated in using the land in a manner that will not deplete its nutrients or value for generations to come. HEALTHY soil produces healthy food.

(Source: Ontario CSA Farm Directory, <http://csafarms.ca/>)

Community supported agriculture programs (CSAs) are a great example of an alternative model of local food distribution that sees consumers sharing the risk of production with the grower or producer. The Ontario CSA Farm Directory Map shows 5 CSA farms located in Middlesex-London,⁸⁹ and there are 204 known households purchasing shares from farms with CSA programs. In comparison to the total number of households in Middlesex-London (180,295) the number of households purchasing from CSA farms is very small.⁹⁰

There are many benefits and some risks associating with joining a CSA (Table 23); however, many of the risks can be mitigated through community-based work.⁹¹ For example, the establishment of a local CSA network can help to pre-season plan with member farms, market and sell their CSA shares, manage consumer expectations, and share information with households on how to prepare meals using the types of food received by CSA farms in the area.

⁸⁹ Ontario CSA Farm Directory, CSA Map, 2015, Web, at <http://csafarms.ca/CSA%20map.html>.

⁹⁰ Statistics Canada, *National Household Survey*, 2011.

⁹¹ Beth Clawson, "Joining a Community Supported Agriculture (CSA) Farm has Benefits," Michigan State University Extension, December 31, 2012, Web, at http://msue.anr.msu.edu/news/joining_a_community_supported_agriculture_csa_farm_has_benefits.

Table 23: Benefits and Risks of Joining a CSA

BENEFITS	RISKS
<ul style="list-style-type: none"> a) Fresh locally grown food with minimal handling b) Introduction to new vegetables and recipes for preparing them c) Typically get to go visit the farm where your food is grown d) Learn more about how your food is grown e) Not unusual that the member families are able to participate in growing their food and often children will try more varieties of vegetables f) Build a relationship with the farmer that grows your food g) Organically grown food – inquire with the CSA to be sure h) Environmentally sustainable through fuel savings by not shipping and storing the food 	<ul style="list-style-type: none"> a) Crop failures mean losses to both the farmer and the CSA member b) Expectations for food volumes, varieties or hands on activities not fulfilled c) Unfamiliar or unanticipated food types requiring learning time to grow accustomed to them d) Fungus, insect attack or disease causing the produce quality to be unacceptable e) Unexpected events in the life of the farmer disrupting production f) Not a certified organic farm – inquire with the CSA to be sure

Further research into developments in alternative food distribution in Middlesex-London, which may include co-ops, developing food hubs, or programs like Coupons for Hunger, will help to shed light on the size and scope of the alternative food distribution system in the area.

Bonduelle

Bonduelle North America’s Strathroy food processing facility is located in the Municipality of Strathroy-Caradoc. The main factory comprises a sprawling 82,000 square feet and a second cold storage site is a massive 171,000 square feet. The plant processes frozen vegetables for the Canadian and northern U.S. market, churning out 80 million pounds of primarily peas, beans and carrots under the Arctic Garden brand and many store brands.

Source: Middlesex County, “Bonduelle,” <http://www.county.middlesex.on.ca/Bonduelle>.

Processing

The processing of food grown, raised, or harvested in an area can, on the one hand, add significant value to this food, thereby increasing its impact on the local economy. On the other hand, small scale food processing contributes to the relationships within a community by shortening the food value chain. These are two reasons why infrastructure supporting local food processing is so important to the health and sustainability of a local food system. In Middlesex-London there are 2 abattoirs, one of which is located in London. In addition, of the Province’s 23 registered egg-shelling stations, two are located in the area; however, none of the eight registered egg-processing stations in Ontario are located in Middlesex-London. Finally, Strathroy-Caradoc is home to one of Bonduelle Canada’s food production sites. Bonduelle is a

multinational corporation that has “one hundred and thirty local employees take raw, freshly harvested vegetables, clean and blanch them, and then subject them to the individually quick frozen (IQF) process.”⁹² The IQF process helps to preserve the quality of the produce by preventing large ice crystals to form when it is frozen.

While big food corporations like Bonduelle can certainly help to stimulate job creation, the vast majority of the food they process leaves the region in which it was grown. This means that the dollars associated with the value added to the food they process locally does not stay local. It also means that the food they produce or process is often not consumed locally. In contrast, small-scale local food infrastructure can help to employ locals while keeping food dollars close to home and in the hands of people who live in the area. The findings suggest that a gap in small-scale local food processing exists in Middlesex-London. Therefore, it is important to conduct additional research into any micro-food processing activity that is taking place in the area to see if and how it can be supported in both scaling-up and marketing to local consumers. A food processing needs assessment for the Middlesex-London food system is another activity that could be conducted by the community to determine opportunities for new processors.

Coupons for Hunger

Together with the support of Londoners just like you, we are able to help address the needs of the estimated 25,657 residents of our city that face food insecurity every year. With your help we acquire low, or in many cases no-cost, grocery items through our couponing programs. Through our partnership with the London Food Bank, these items are then distributed to households across our city that find themselves in need.

Our programs comprise three parts. First we collect coupons through drop-boxes located at all sixteen of the London Public Library locations. Secondly, we clip and sort these coupons at our Coupon-a-thon drives, whether in the form of hosted Employee Engagement Programs or at our drop-in programs downtown. We then cash the coupons we've collected and donate the resulting groceries to the London Food Bank and other organizations such as Mission Services, Women's Community House, Animal Rescue Foundation, Ronald McDonald House, Tampon Tuesday and more.

The third arm of our program centres around education. Through our Coupon Workshops we are able to teach couponing skills to attendees who are then in turn empowered to drastically reduce their own monthly grocery bills.

Source: Coupons for Hunger, <http://www.couponsforhunger.org>.

⁹² Middlesex County, “Bonduelle,” 2015, Web, at <http://www.county.middlesex.on.ca/Bonduelle>.

4.2 Gaps in Knowledge

The findings on food access and distribution were plentiful, especially on food retailers and service providers; however, there are a few gaps in knowledge that can help to inform future research. Both defining and breaking out the number of fast food establishments from the total number food service outlets can help to shed light on how many restaurants and take-away outlets are serving fast food. Additional information on food distributors, wholesalers, aggregators (who collect and store food) and food warehouses, as well as community food hubs, is also needed, and a map of these would be extremely helpful for planning future action. Finally, the percentage of food that gets processed and sold to Middlesex-London residents, alongside information on the potential barriers and solutions to increasing local food processing and procurement, need to be determined.

4.3 Strengths and Assets

A diversity of material assets—that is, what is owned and what is used—span across Middlesex-London’s food system. For example, there are 600 retail food access points in the area, of which 93 are supermarkets or grocery stores. The many rural farm gate retail operations are also material assets that can be accessed in future community action planning. In addition to retail food access points, Middlesex-London has 788 restaurants, and this does not include the 355 take-out food establishments. All of these food service businesses can be used as ways to get more local food to the consumer. Last, there are numerous farmers’ markets in London, in addition to a strong farmers’ market scene that can be cultivated to become a substantial cultural asset for the community.

The above strengths and assets have helped to grow a large market for locally grown food in Middlesex-London. Having healthier food made available to children and youth through the Ontario Student Nutrition Program can strengthen this market.

While they are neither food retail nor food service establishments, a large number (168) of inspected commercial kitchens are located across Middlesex-London. These commercial kitchens are important material assets for the food system because they have the potential to become community or collective kitchens. With limited local food processing taking place in the area, these facilities could also be used to incubate small processing and value-add businesses.

Middlesex-London has 37 meal programs, 1 Good Food Box program, and a total of 21 food banks. While these are cultural and material assets, respectively, the community may want to assess whether they are addressing the root causes of food insecurity in the area. If they are not, then the community may choose to plan action around developing these assets or planning more innovative strategies to address food insecurity, such as building community capacity.

Finally, all of the abovementioned assets are supported by a strong public transportation system in London, developing alternative transportation activity in the rural areas, and the 401 and 402 transportation corridors that run through the area. This transportation network is a great resource for the area, and one that the community should take full advantage of when planning future action.

Table 24 lists all of the strengths and assets identified through the community food assessment process that pertain to this section of the report (please see 1.2 for Asset Legend).

Table 24: Strengths and Assets within Food Access and Distribution

FOOD ACCESS AND DISTRIBUTION						
34. Food access points in retail sector						
35. Farmers markets in London						
36. Public transportation						
37. Large number of meal programs (33), food banks (17) and a good food box program in London						
38. 168 inspected commercial kitchens (potential to be used as community or collective kitchens)						
39. Transportation network (e.g. 401/402 corridor)						
40. Western Fair District Complex						
41. Churches and community centres with food cupboards						
42. Large food processors						
43. Railway						
44. Farm gates in Middlesex						
45. Large number of restaurants (50% of food service outlets)						
46. Foodland Ontario sections in grocery stores						
47. Food delivery programs						

FOOD ACCESS AND DISTRIBUTION

48. Free healthy food through ONSP (high number of elementary and secondary schools participating)

49. Large market for locally grown food

4.4 Areas to Cultivate

There are three areas to cultivate in Middlesex-London that relate to Food Access and Distribution: local processing and distribution; food access; and emergency food.

Local Processing and Distribution

Aside from three abattoirs and two egg-shelling stations, there is only vegetable processor, and it's a multinational corporation focused on national and international trade. Even counting the twelve wholesale and distribution businesses, Middlesex-London has few food system assets involved in adding value to agricultural products in the middle of the food value chain. This missing middle, as it is often referred to, affects the ability for smaller-scale local producers to compete in the marketplace. To start, local producers have difficulty increasing the value of their products through processing. Furthermore, even if they can add value to their products, they are unable to get them to market. Community members noted that large wholesale and distribution businesses control the marketplace, so unless small producers sell directly to residents in the area, the public's access to local food is limited. Similarly, the variety of local food products the public is able to access is reduced when niche or speciality producers face distribution barriers. Therefore, working to address the missing middle, towards increasing the area's capacity to process and distribute local food, is an important area to cultivate in Middlesex-London's food system.

Food Access

While there are many food retail and service access points in Middlesex-London, including supermarkets and grocery stores, restaurants, farmers' markets, and farm gates, access to food remains a significant issue for many community members. Stakeholders mentioned that the public transportation system isn't very effective and can be costly, in addition to being difficult for families with children trying to transport food. This issue is further compounded by the fact that many residents of the City live in food deserts. Key informants also pointed out that there is no public transportation available in rural areas. In regards to types of food available, community members were sorry to report that much of the food that can be obtained in the area is imported into the region from the United States and farther abroad. A very large number of survey respondents also reported that food pricing or the cost of food makes accessing fresh healthy local food very difficult. With food prices going up, respondents noted, the quantity versus quality equation becomes too financially challenging to solve. For these

reasons, food access and availability is a key area to cultivate in the Middlesex-London food system.

Emergency Food

Middlesex-London families in need of emergency food have limited access to the food being made available to them. While emergency food programming exists in the area, many emergency food locations close before people finish work and are not open on the weekends. As much of a concern is the fact that the food available at food banks often needs to be non-perishable. The result is emergency food that is often neither fresh nor locally produced. The inadequacy and unacceptability of emergency food were both highlighted by community respondents to the survey. Not surprisingly, community members suggested that nutritious food, including fresh fruit and vegetables, and healthy alternatives should be priorities for emergency food providers. Providing food choice, such as local food and meat options, were identified by survey respondents as specific areas for food banks to concentrate on. However, the development of existing food system assets is not the only way to cultivate food access. Emergency food resources could be reallocated towards efforts that focus on building social capital and growing community capacity. For example, community development projects that transfer food literacy skills to individuals could help people to conquer their own food insecurity.

4.5 Opportunities for Change

Middlesex-London residents who participated in the community survey (see Community Engagement) were asked to rate their level of agreement with four statements. The first two of these statements are related to food distribution and the second two are related to food access:

- It is important that food grown or farm animals raised in Middlesex-London are also sold here;
- It is important that food grown or farm animals raised in Middlesex-London are also processed here;
- It is important that Middlesex-London emergency services provide local and healthy food; and
- It is important that Middlesex-London emergency services provide local and healthy food.

In response to the first two food distribution statements (Figure 40 and 41) a strong majority (70%) of residents “strongly agreed” that it is important that food grown, or farm animals raised, in Middlesex-London was also sold in the area. Interestingly, only 58% of the same respondents “strongly agreed” that food grown, or farm animals raised, should be processed in the area.

This suggests that food production is slightly more of a priority than food processing for residents of Middlesex-London. Considering the missing middle described above, this poses a problem for increasing local food access and consumption in the area. In other words, if the infrastructure to process and distribute local food is not prioritized then food grown locally will have to leave Middlesex-London to be processed, thus reducing its economic impact. Furthermore, the likelihood of this food returning to the area is low, and if it does the cost will be higher.

“Food forests are great because they allow food to grow naturally and are available to everyone, but a lot of people are not aware of them...They are beautiful and become a source of food for people who have little other options.”
- Survey Respondent

Responses to the two food access statements were more closely aligned (Figure 42 and 43). A majority of survey respondents “strongly agreed” that it is important for emergency services to provide local healthy food, when and where people need it.

Figure 40: It is important that food grown or farm animals raised in Middlesex-London are also sold here

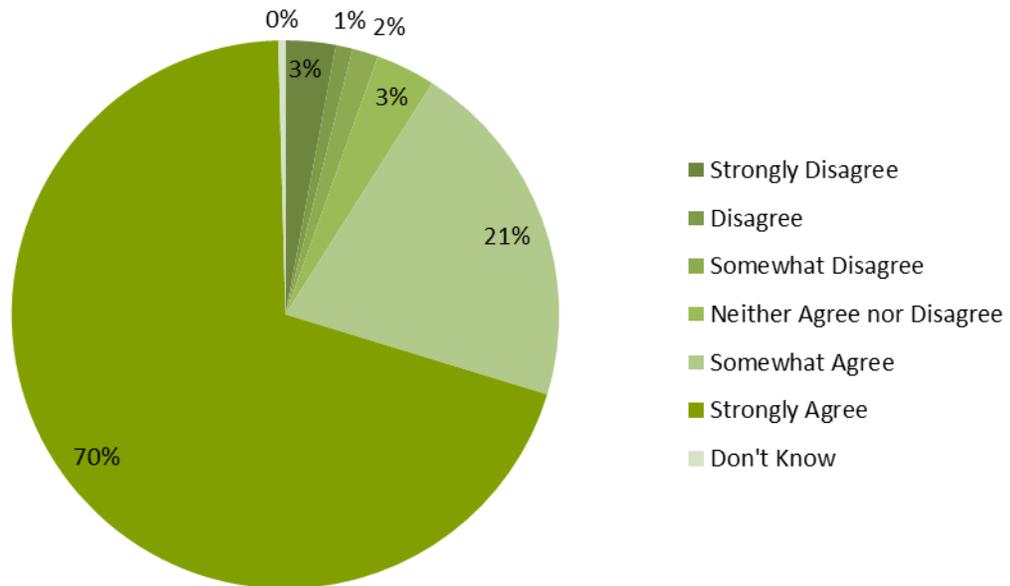


Figure 41: It is important that food grown or farm animals raised in Middlesex-London are also processed here

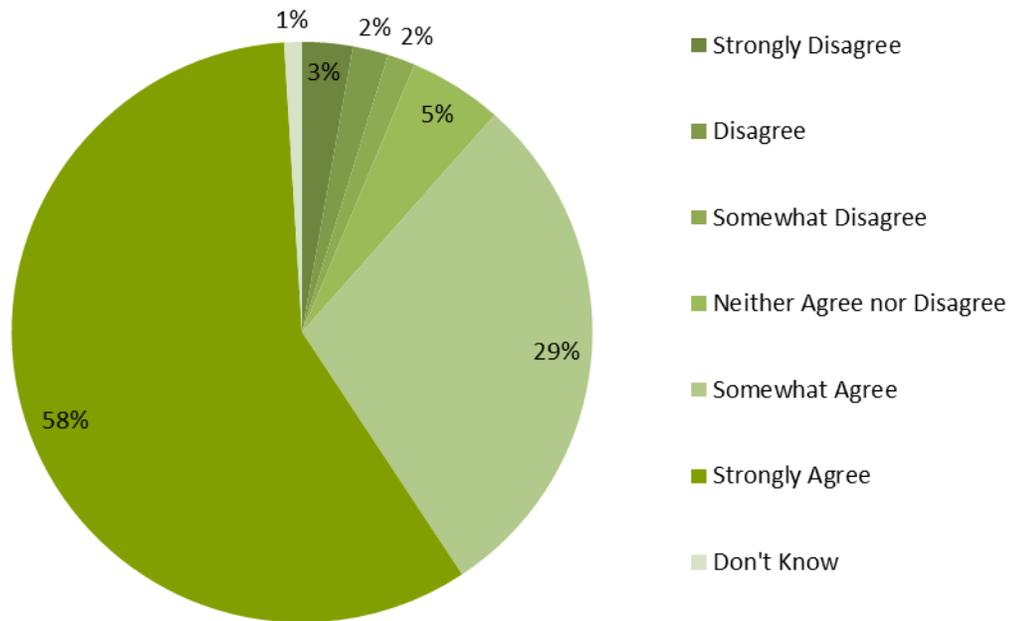


Figure 42: It is important that Middlesex-London emergency services provide local and healthy food

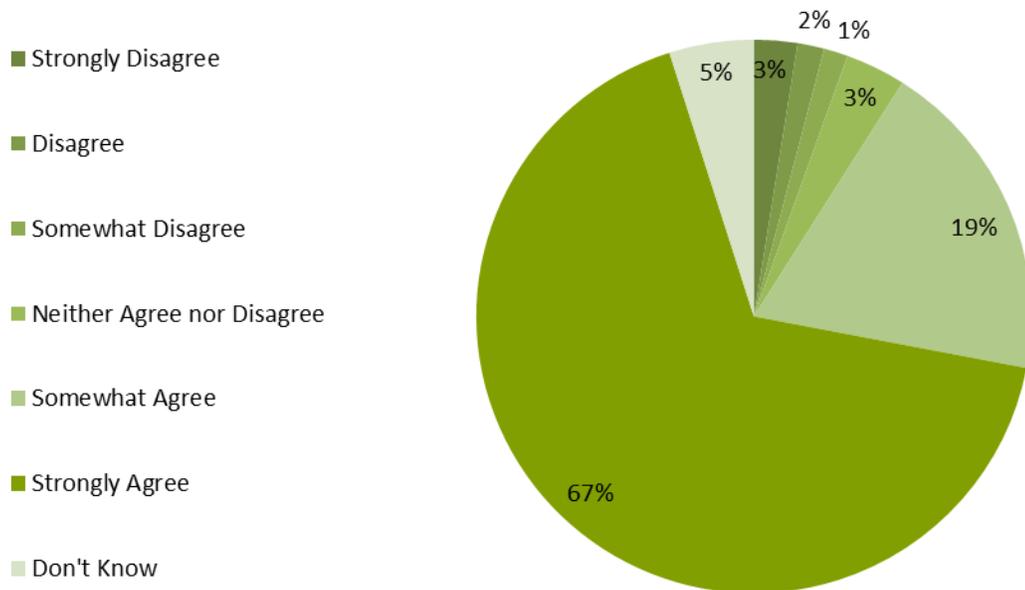
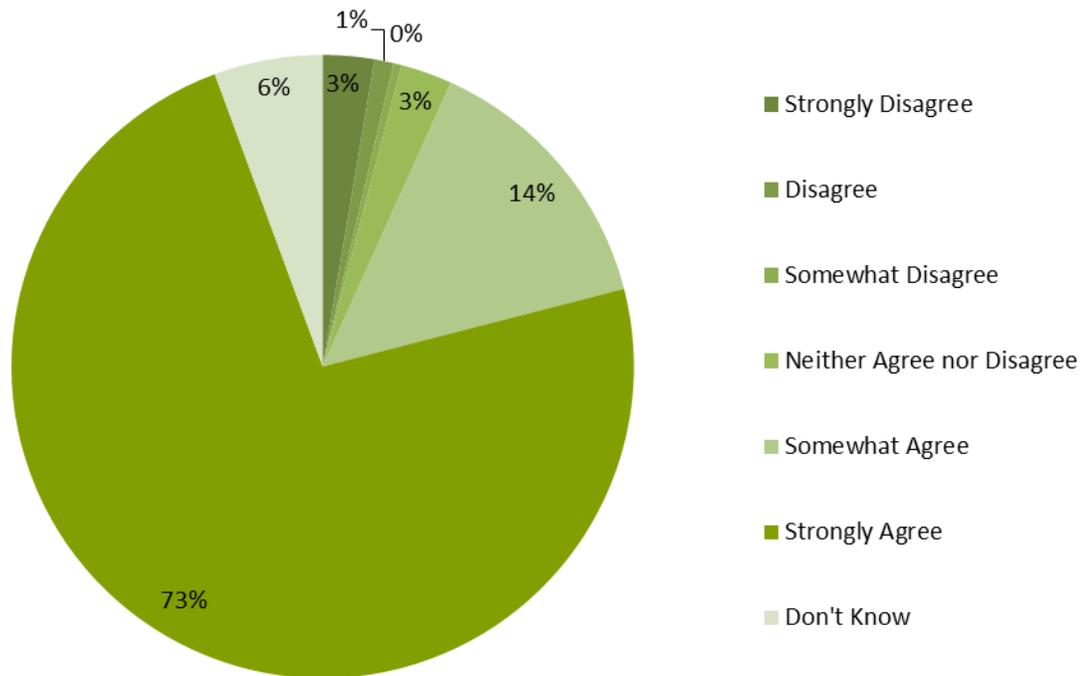


Figure 43: It is important that Middlesex-London emergency services provide food when and where people need it



Community members shed light on a number of unique but related opportunities for change in how Middlesex-London processes, distributes, and markets food, as well as how the community can work towards increasing food access for its residents. To start, the development of a certified cooperative processing facility with shared equipment was suggested. This type of facility would both help to connect growers and producers and allow them to test if there is a business case for adding value to their product through processing. Similarly, a mobile processing solution was identified as a potential future initiative, and a Mennonite travelling cannery was referenced as an example of what this could look like.

The creation of a local food hub, to collect, store and distribute food across Middlesex-London, is another idea that stakeholders shared. If such a facility is not feasible, then community members suggested developing more programs that deliver local healthy produce to people who can't travel to food access points; mobile food trucks that sell produce to neighbourhoods located in food deserts was a great initiative that came out of discussions with stakeholders.

Finally, increasing local food consumption was identified as an opportunity for change. Key informants noted that this could mean challenging existing food procurement policies as well as working towards the creation of new innovative ones that leverage the purchasing power of large local institutions. Survey respondents noted that a change in how local food is being marketed could also take the form of a better labelling system that identifies where food is coming from and where it is processed. This type of initiative, community members suggested, could be coupled with an increase in the marketing of local farms, the development or

promotion of a resource that could help people to find local food, and the continued establishment of local satellite farmers' market sites.

Along with the above opportunities for change in food distribution, which can have a positive impact on food access, community members identified a number of changes that could increase food access and security for Middlesex-London residents. The promotion of emergency food programming and an increase in the volunteer capacity at emergency food locations was an opportunity that presented itself, along with working to change the operating hours at these locations to be more user-friendly. Increasing the capacity of food banks to accept, store, and work with fresh and whole foods, was also noted by community members as a future initiative the community could take on. The development of programs that will benefit those most in need of food was also a theme that came out of the community engagement process. A door-to-door food excess collection program, where individuals donate food they may not have an immediate need for, or a food buck program where food bucks can be used in grocery stores were two examples provided.

4.0 FOOD ACCESS AND DISTRIBUTION



18

Farmers' Markets

168 Commercial Kitchens

Food Service Outlets
1452

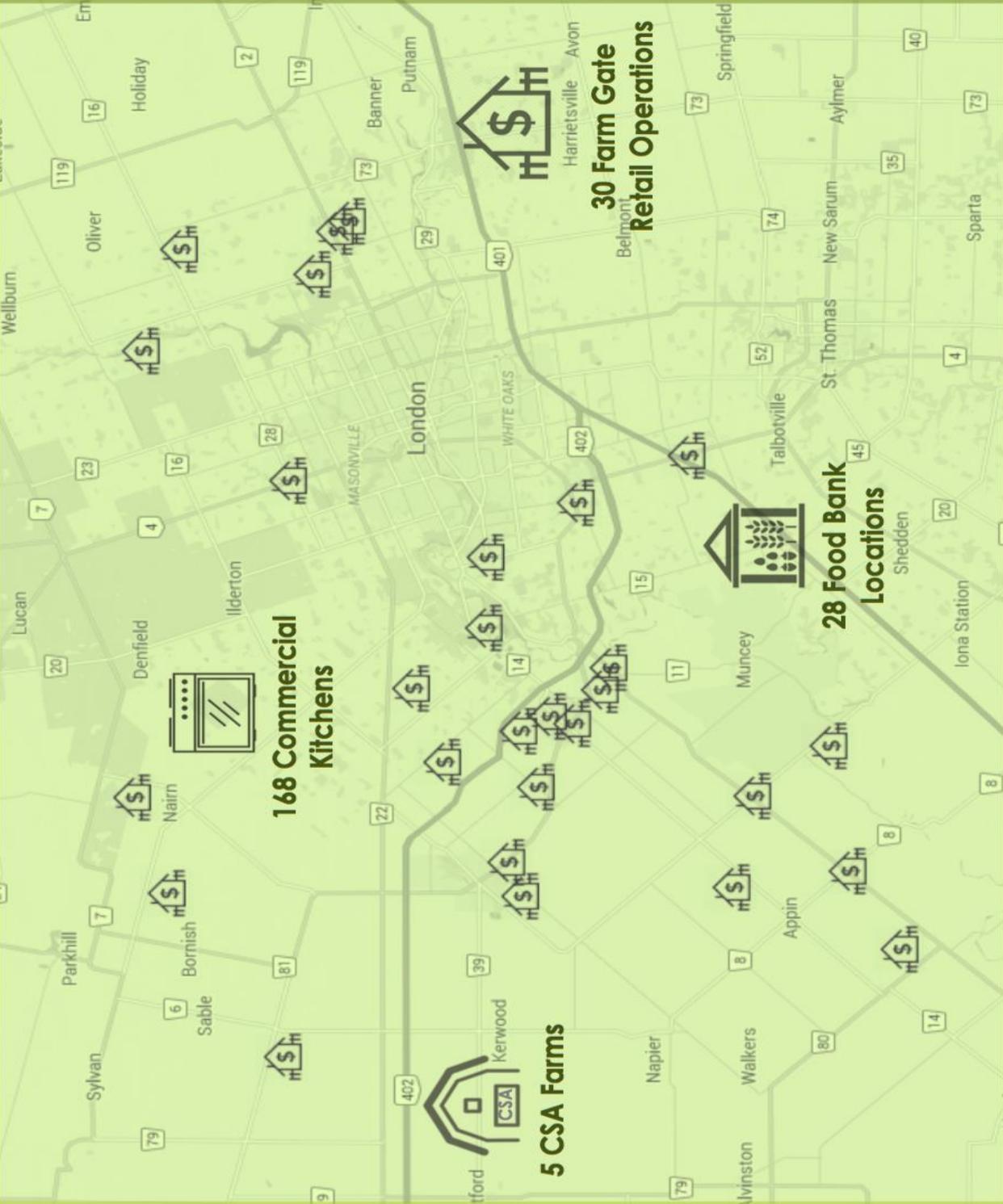
5 CSA Farms

Total Annual Food Expenditure in 2014
\$1,441,544,617

30 Farm Gate Retail Operations

28 Food Bank Locations

600 Food Retail Outlets



Ontario Student Nutrition Program

80

SCHOOLS



10,140

STUDENTS

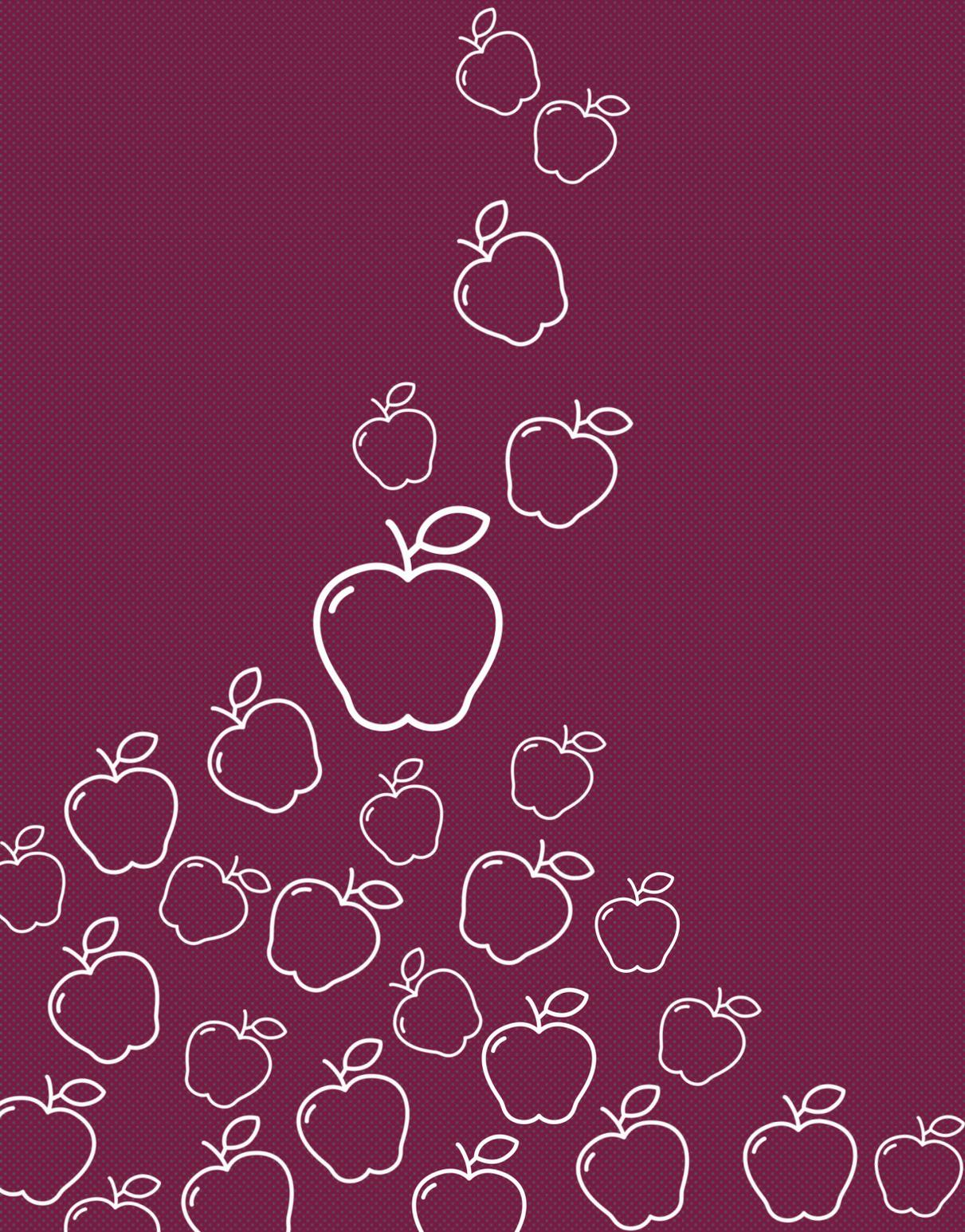


1,630,626

MEALS



5.0 FOOD PURCHASING AND CONSUMPTION



5.0 FOOD PURCHASING AND CONSUMPTION

5.1 Findings

An account of the total dollar value of food purchased in Middlesex-London, coupled with an account of how much of this expenditure is on local food, can provide the basis for an analysis of changes in local food purchasing behaviour over time. This can be correlated to purchasing and consumption trends of the general public to determine if there is a shift towards an increasing demand for and consumption of local food in Middlesex-London.

The objectives for this section include the following:

- To provide an account of the purchasing behaviour of local, healthy, sustainable food of citizens in the area from the standpoint of food service, food retail, public institutions and the general public;
- To provide an account of general food purchasing behaviour from the standpoint of food service, food retail, public institutions and the general public;
- To provide an overview of the consumption of local food in the area; and
- To provide an overview of eating habits of the general population and by subpopulation

This section looks at the total dollar value of food purchased by different types of establishments in both Canada and Ontario. While it cannot speak to the total dollar of food purchased in Middlesex-London or breakdown this expenditure by type of establishment in the area, it does provide the context for further research into food purchasing and consumption in the area. This section also looks at the purchasing of local food in Middlesex-London, the percentage of the population that complies with the daily-recommended fruit and vegetable intake, as well as the dollars spent by households on food in general and fast food specifically. Although, **there are significant gaps in information with regard to local food purchasing**, this section has tried to compile available data and accurately present it, and wherever possible, identify areas for further tracking, monitoring and research.

Purchasing of Food by the Foodservice Sector

The total dollar of food purchased in 2011 by full-service⁹³ restaurants in Canada (calculated as 30% of operating expenses) was \$6,005,940,000, and for limited-service⁹⁴ eating places this

⁹³ Full-Service Restaurants are comprised of “establishments primarily engaged in providing food services to patrons who order and are served while seated and pay after eating. These establishments may sell alcoholic beverages, provide take-out services, operate a bar or present live entertainment, in addition to serving food and beverages” (Statistics Canada, *North American Industry Classification System*, 2007).

⁹⁴ Limited-Service Eating Places are comprised of “establishments primarily engaged in providing foodservices to patrons who order or select items at a counter, food bar or cafeteria line (or order by telephone) and pay before eating. Food and drink are picked up for consumption on the premises or for take-out, or delivered to the

number was \$5,886,810,000 (Table 25). Combined, this amounts to \$11,892,750,000 in food purchased by foodservice businesses across the country in 2011. Since 2008 there has been a steady increase in the total value of food purchased by foodservice businesses.

Table 25: Total Dollar Value of Food Purchased by Foodservice Businesses in Canada, 2008-2011 (Source: Statistics Canada, CANSIM, Table 355-0005 and Catalogue No. 63-243-X)

Canada	2008	2009	2010	2011
	\$ Millions			
Full-service Restaurants				
Operating Revenue	20,043.1	19,728.4	19,977.0	20,659.6
Operating Expenses	19,378.4	19,026.8	19,233.6	20,019.8
Operating Profit Margin	3.3	3.6	3.7	3.1
Limited-service Eating Places				
Operating Revenue	18,569.6	19,162.0	20,163.3	20,711.2
Operating Expenses	17,510.4	18,128.4	18,978.9	19,622.7
Operating Profit Margin	5.7	5.4	5.9	5.3
Total Dollar Value of Food Purchased	11,066.6	11,147.5	11,463.8	11,892.8

In Ontario, the total dollar of food purchased by full-service restaurants (calculated as 30% of operating expenses) was \$2,080,380,000 and for limited-service eating places this number was \$2,508,120,000 (Table 26). Combined, this amounts to \$4,588,500,000 in food purchased in 2011 by foodservice businesses in Ontario in 2011. Since 2008 there has been a steady increase in the total value of food purchased by foodservice businesses in Ontario. When compared to Canada, the increase in total dollar value of food purchased by foodservice businesses in Ontario over the four-year period (2008-2011) is identical (6.9%). If the food-purchasing behaviours of the foodservice sector in Middlesex-London mirror those across the Country and Province, then there is a real opportunity to partner with industry to increase the procurement and service of local food through collaborative and cross-sectoral local food purchasing and marketing efforts, such as the Ontario Culinary Tourism Alliance's Feast ON program (see section 4.1).

Table 26: Total Dollar Value of Food Purchased by Foodservice Businesses in Ontario, 2008-2011 (Source: Statistics Canada, CANSIM, Table 355-005 and Catalogue No. 63-243-X)

Ontario	2008	2009	2010	2011
	\$ Millions			
Full-service Restaurants				
Operating Revenue	6,794.8	6,675.2	6,788.4	7,095.4
Operating Expenses	6,695.9	6,524.7	6,601.2	6,934.6
Operating Profit Margin	1.5	2.3	2.8	2.3

customer's location. These establishments may offer a variety of food items or they may offer specialty snacks or non-alcoholic beverages" (Statistics Canada, *North American Industry Classification System*, 2007).

Ontario	2008	2009	2010	2011
	\$ Millions			
Limited-service Eating Places				
Operating Revenue	7,914.8	8,040.1	8,433.0	8,694.1
Operating Expenses	7,548.7	7,696.8	8,048.1	8,360.4
Operating Profit Margin	4.6	4.3	4.6	3.8
Total Dollar Value of Food Purchased	4,273.4	4,266.5	4,394.6	4,588.5

Purchasing of Food by the Retail Sector

The operating statistics of retail food establishments sheds light on the importance of including them in any food system change. For example, in 2012 the cost of goods sold for all food retailers in Ontario—including supermarkets and other grocery stores, convenience stores, and specialty food stores—was \$23,364,000,000 (Table 27). While these food retailers do sell many non-food items, the cost of their goods sold remains an important indicator of their potential local food purchasing power. If the Middlesex-London community is able to partner with a large supermarket or grocery store chain to identify specific local seasonal products they may procure, then the local economic impact can be great. To supply the amount of food that such a large retailer will demand, the community may work on collecting product through a cooperative or food hub. Convenience and specialty stores can also help to increase consumer access to local foods creating distribution channels for small and niche or specialty producers; therefore, it is important to explore what collaboration between these small food retailers may look like.

Table 27: Operating Statistics, by Retailer in Ontario, 2012 (Source: Statistics Canada, CANSIM, Table 080-0023)

Type of Food & Beverage Store	Operating Revenues	Operating Expenses	Cost of Goods Sold	Gross Margin
	\$ Millions			%
Supermarkets and other Grocery Stores	25,651.9	5,508.4	19,826.7	22.7
Convenience Stores	2,600.6	508.8	1,960.4	24.6
Specialty Food Stores	2,413.4	769.3	1,576.9	34.7
Total	30,665.6	6,786.5	23,364.0	

Purchasing of Food by Broader Public Sector Institutions

In addition to food purchased by the foodservice and retail sectors, it is important to consider food purchased by public institutions when planning food system change. The buying power of public institutions, if both directed and supported properly—for example, through procurement policy and institutional capacity building—could become a demand-led force that steers important food dollars towards local food systems. This would require a commitment by institutions to invest in developing the capacity to purchase and prepare minimum percentages of food from clearly defined regional and provincial sources before going beyond Provincial and

National borders to procure food. Fortunately, the Greenbelt Fund, through its Broader Public Sector (BPS) grant stream, provides support to public institutions towards this end.⁹⁵

Greenbelt Fund's Broader Public Sector Grant Stream – Areas of Focus

1. Skills Development: Increase local food handling and preparation skills so that more institutions can create local food menus;
2. Organizational Change: Drive organizational change within institutions, distributors, and foodservice operators to make local food a priority;
3. Value Chain Collaboration: Foster value chain collaboration to enable better communication and stronger relationships between our farmers, processors, distributors and institutions;
4. Policy Change: Support changes to policies and practices that increase local food purchases and tracking by institutions; and
5. Innovation and Product Development: Facilitate innovation to find and/or develop local food products that meet the particular needs of our public institutions.

(Source: Greenbelt Fund, "Broader Public Sector Grant Stream," http://www.greenbeltfund.ca/broader_public_sector_grant).

According to *Ontario's Local Food Report*,

The broader public sector [in Ontario] spends an estimated \$745 million per year on food. [Therefore,] expanding local food purchases by our municipalities, hospitals, long-term care homes, schools, colleges and universities represents a significant market opportunity for our farmers and food processors.⁹⁶

Information on BPS food expenditure, broken down by geography, is presently unavailable; therefore, the total dollar value of food expenditure by BPS institutions located in Middlesex-London is unknown. However, the number of BPS institutions in Middlesex-County, including municipal, academic, and health care institutions, should not be overlooked. A survey of local BPS institutions is one way to collect information on their food expenditure amounts and practices, as well as, assess their interest and capacity to help drive food system change.

⁹⁵ Greenbelt Fund, "Broader Public Sector Grant Stream," http://www.greenbeltfund.ca/broader_public_sector_grant.

⁹⁶ OMAFRA, *Ontario's Local Food Report*, 2014-2015 Edition, http://www.omafra.gov.on.ca/english/about/local_food_rpt.htm (July 29, 2015).

Purchasing of Local Food

Data on the total dollar value of local food purchases in Middlesex-London, alongside information about what types of establishments are purchasing local food—for example, BPS institutions, foodservice or retail businesses—and whether or not their purchases have increased over time, are important indicators of the supply and demand of local food. However, the tracking and tracing of local food purchases across the province remains an inconsistent and developing practice. This does not mean that local food purchasing is not taking place in Middlesex-London but rather that harmonized data on local food procurement (broadly defined) in the area was unavailable at the time of this Community Food Assessment.

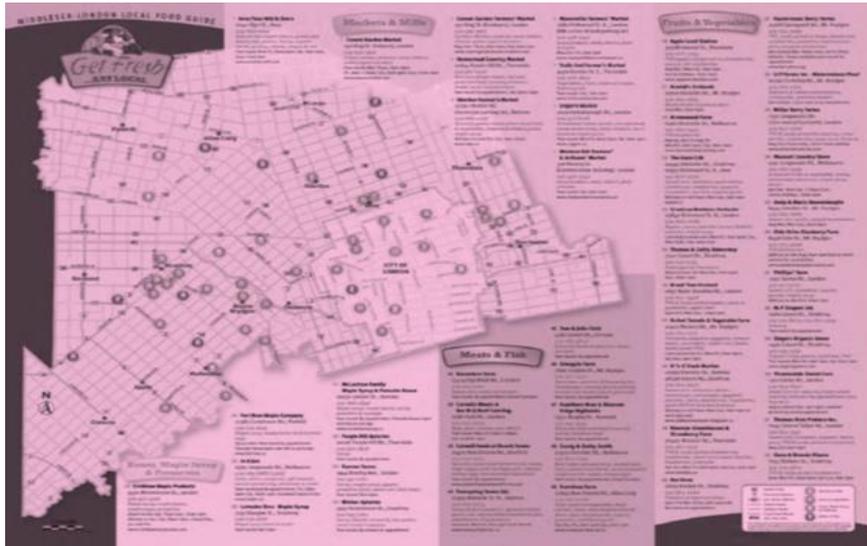
Figure 44: Get Fresh Eat Local Food Guide (Source: Middlesex-London Health Unit, <https://www.healthunit.com/eat-local-map>)



The Middlesex-London Food Guide “Get Fresh Eat Local” (Figure 44) is a good example of a resource that has been developed to help consumers find and purchase local food. Created by the Middlesex Federation of Agriculture, and made available online through the Middlesex-London Health Unit, this guide takes the form of a comprehensive infographic and map that lists all of the places consumers can purchase local food. It contains 3 farmers markets, 31 places to purchase fruits and vegetables, 10 places to purchase meats and 10 places where honey, syrups, and jams can be purchased; making for a total of 54 places to purchase local food.⁹⁷

⁹⁷ Middlesex Federation of Agriculture, *Middlesex-London Food Guide “Get Fresh Eat Local,”* No Date, Web, at <https://www.healthunit.com/eat-local-map>.

Figure 45: Get Fresh Eat Local Food Guide (Source: Middlesex-London Health Unit, <https://www.healthunit.com/eat-local-map>)



Although this tool is an effective resource for consumers who may be both adventurous and have the time to travel around Middlesex-London to direct purchase their food, it does not assist the segment of the population who is time constrained and interested in purchasing their food primarily from one place, such as the grocery store. This is why events that build local food awareness are great ways to educate the public that may not be accessing or using such resources. Some Middlesex-London food system stakeholders are already collaborating on local food events, like Ontario Produce Day, that raise awareness about the seasonality of local food.

Ontario Produce Day: A Celebration of Local Food at a Time when It's Available

In response to the timing of Local Food Week—the province's official celebration of local food at the start of June—Middlesex-London farmers and distributors are coming together with other stakeholders to initiate a celebration of local food that is more closely tied to the season in which this food is available, in mid-August.

On August 15, 2015 Pfenning's Organic Farm, a 242-acre family-run farm located in New Hamburg, will joining other farmers at Globally Local, an organic distribution business located South of London. This unofficial Ontario Produce Day allows them to showcase their produce when it's at its most bountiful and for consumers to see who it is that is producing this food

(Source: London Free Press, "Event serves up a plethora of produce not available during the June food week designated under the Local Food Act," August 11, 2015).

Purchasing and Consumption Behaviours

According to *Canada's Food Guide*, the recommended daily number of food guide servings of vegetables and fruit that an individual should eat on a daily basis (Table 28) varies depending upon the age and sex of that person. In a position paper by the Middlesex-London Health Unit, entitled "Linking Health and the Built Environment in Rural Settings," it is stated "nearly 40% of the population of Middlesex-London reported that they ate five or more servings of vegetables and fruit per day in 2009/2010.⁹⁸ When this is compared to the percentage of Ontario residents who complied with the recommended daily intake of vegetables and fruit in 2012 (39.4%)—which is closely aligned with the national percentage (40.4%)—the percentage of Middlesex-London residents who meet the daily recommended intake is almost identical to that of both the Province and Country.⁹⁹ However, it was also reported that 89% of Middlesex-London residents *did not* meet their vegetable and fruit requirements in 2011, based on *Canada's Food Guide*, or put differently, 11% of Middlesex-London residents met the recommended intake of fruits and vegetables per day.¹⁰⁰ The large discrepancy between the 2009/2010 percentage (40%) and the 2011 percentage (11%) can be explained by the fact that the 2011 percentage reflects a reclassification of the data. This was done to account for the recommended number of food guide servings by age and sex, which is often more than 5 servings. This is important to note when considering the household food expenditure of Middlesex-London (below), and future strategies to increase fruit and vegetable consumption.

Table 28: Recommended Number of Food Guide Servings Per Day (Source: Health Canada, *Eating Well with Canada's Food Guide*, 2011)

	Children			Teens		Adults			
Years	2-3	4-8	9-13	14-18		19-50		51+	
Sex	Girls and Boys			Female	Male	Female	Male	Female	Male
Vegetables and Fruit	4	5	6	7	8	7-8	8-10	7	7
Grain Products	3	4	6	6	7	6-7	8	6	7
Milk and Alternatives	2	2	3-4	3-4	3-4	2	2	3	3
Meat and Alternatives	1	1	1-2	2	3	2	3	2	3

⁹⁸ Middlesex London Health Unit, "Linking Health and the Built Environment in Rural Settings: Evidence and Recommendations for Planning Healthy Communities in Middlesex County," 2013, Print, at p. 29.

⁹⁹ Statistics Canada, "Fruit and Vegetable Consumption, 2011," 2015, Web, at <http://www.statcan.gc.ca/pub/82-625-x/2012001/article/11661-eng.htm>.

¹⁰⁰ Middlesex London Health Unit, Harvest Bucks, June 2015, Web, at <http://www.healthunit.com/harvest-bucks>

In 2014, according to Statistics Canada’s Food Expenditure Survey, the total dollar value of food purchased by households in Middlesex-London was \$7,427.¹⁰¹ This amounts to \$142.82 per household/per week, or \$571.30 per month. If the average number of persons in households in Middlesex-London is near to the average number in Ontario, which was 2.6 in 2011, then this works out to approximately \$220 of food purchased per person per month.¹⁰²

Looking more closely at food expenditure in Middlesex-London, one can see what types of food residents are spending their money on. The table below (Table 29) shows the percentage of food expenditure in Middlesex-London by commodity type. While the distribution of results in the table is in line with food expenditure in South Western Ontario, the breakdown of food expenditure is not the same for all Middlesex-London residents. According to the Middlesex-London Health Unit in 2009/10 nearly 8% of the households in Middlesex-London were considered moderately or severely food insecure, due to lack of money, compared to the provincial percentage of 7.6.¹⁰³ This percentage has increased since 2007-2008 when 7.2% of Middlesex-London residents and 7.8% of Ontario residents were food insecure due to lack of money; however, it is important to note that it does not reflect all of the dimensions of food insecurity that exist in reality.¹⁰⁴ For example, food insecurity can also be observed through the number of people accessing emergency food. The London Food Bank serves approximately 9,000 individuals a month; however, this number underestimates food insecurity because less than 25% of food insecure households use food banks (this number does not include other food banks in Middlesex-London nor those places serving emergency meals).¹⁰⁵ Therefore, based on a more robust definition of food security (see Glossary of Key Terms) a much larger percentage of the Middlesex-London population may be considered to be food insecure.

Table 29: Food Expenditure in Middlesex-London, by Commodity Type (Source: Food Expenditure Survey 2014)

Commodity Type	South Western Ontario Food Expenditure (\$)	% of total	Middlesex Food Expenditure (\$)	% of total
Meat	\$680,160,435	21%	198,374,962	20%
Fish and other marine products	\$100,303,328	3%	30,270,023	3%
Dairy products and eggs	\$493,615,113	15%	144,667,240	15%
Bakery and other cereal products	\$493,811,966	15%	144,635,514	15%
Fruit and nuts	\$384,159,062	12%	115,192,726	12%
Vegetables	\$329,313,914	10%	98,170,398	10%
Condiments, spices and vinegar	\$99,739,255	3%	29,260,273	3%
Sugar and sugar preparations	\$127,022,483	4%	36,259,013	4%
Coffee and tea	\$56,695,401	2%	16,833,641	2%

¹⁰¹ Statistics Canada, “Food Expenditure Survey, by Region,” 2014.

¹⁰² Statistics Canada, “Household Size, by Province and Territory,” 2011.

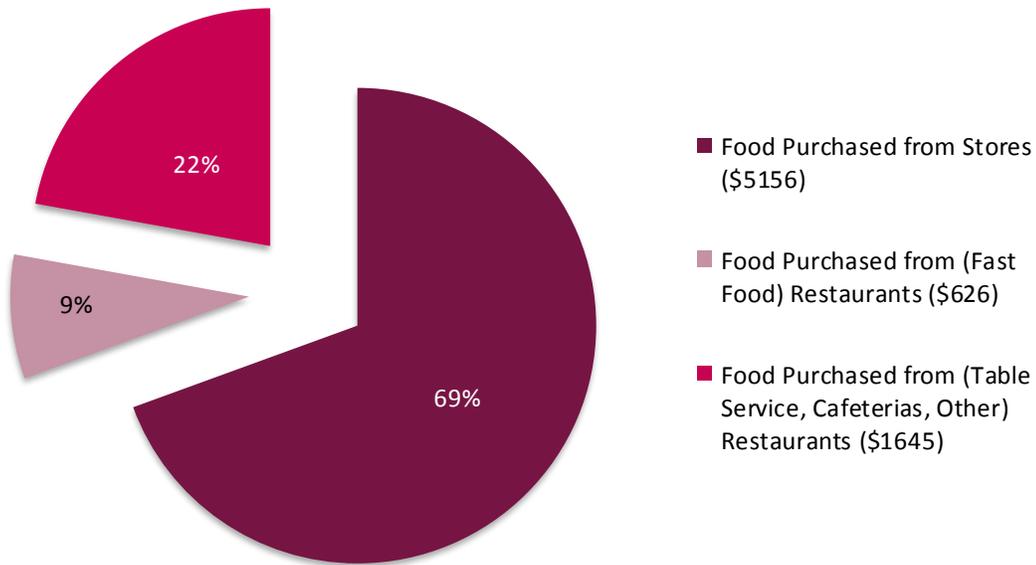
¹⁰³ Middlesex-London Health Unit, “Food insecure in the previous 12 months due to lack of money,” 2007/8, 2009/10, Web, at <http://www.communityhealthstats.healthunit.com/chart/food-security/figure-229-food-insecure-previous-12-months-due-lack-money>.

¹⁰⁴ Middlesex-London Health Unit, “Food insecure in the previous 12 months due to lack of money,” 2007/8, 2009/10, Web, at <http://www.communityhealthstats.healthunit.com/chart/food-security/figure-229-food-insecure-previous-12-months-due-lack-money>.

¹⁰⁵ Child & Youth Network, “Poverty Trends in London,” 2015.

Commodity Type	South Western Ontario Food Expenditure (\$)	% of total	Middlesex Food Expenditure (\$)	% of total
Fats and oils	\$40,371,042	1%	11,650,327	1%
Other foods, materials and food preparations	\$345,773,664	11%	103,080,985	11%
Non-alcoholic beverages	\$135,896,914	4%	3,9405,869	4%
Total	\$3,286,860,580		\$967,800,971	

Figure 46: Total Annual Food Expenditure for Middlesex-London, per Household by Point of Purchase, 2014
(Source: Statistics Canada, Food Expenditure Survey)



The annual household food expenditure in Middlesex-London can be further broken down into food purchased from stores and food purchased from restaurants (Figure 46). In 2014, 69% (\$5,156) of the food purchased annually by household in Middlesex-London is at stores while the remaining 31% (\$2,271) of food purchased is from restaurants. Importantly, of the \$2,271 of food purchased from restaurants, \$626 is spent at fast food establishments. This makes for a total of \$121,491,085 spent at fast food establishments by Middlesex-London residents in 2014.¹⁰⁶ While some fast food restaurants¹⁰⁷ are responding to consumer demand for more fresh healthy food options, the majority of limited-service eating places—of which fast food restaurants are included—serve unhealthy food. Fish and chip shops, hamburger stands, fried chicken take-outs, pizzerias, and doughnut shops are but a few of the establishments that Statistics Canada includes in the same category as fast food restaurants.¹⁰⁸

¹⁰⁶ Statistics Canada, “Food Expenditure Survey, by Region,” 2014.

¹⁰⁷ For example, Chipotle Mexican Grill is committed to “Putting the Food Back in Fast Food,” through its Food with Integrity policy that mandates sourcing local whole food and cooking from scratch (Source: Chipotle Mexican Grill, “Food With Integrity,” 2015, Web, at <https://www.chipotle.com/food-with-integrity>).

¹⁰⁸ Statistics Canada, *North American Industry Classification System (NAICS) Canada, 2012*, “All Examples –722512 – Limited-service Eating Places.

In 2013 the total annual food expenditure by household in Ontario was slightly higher (5.6%) than in Middlesex-London, at \$7,843. The total annual food expenditure in Canada in 2013, however, is slightly higher, at \$7,980 per household. Of the total annual food expenditure in Ontario, 71% is purchased from stores and 29% is purchased from restaurants.¹⁰⁹ These figures are close to par with food purchased by household at stores and restaurants by Middlesex-London residents. Interestingly, of the National food expenditure, 72.1% (\$5,572) of food is purchased from stores and 27.9% (\$2,167) is purchased from restaurants.¹¹⁰ This means that even though Middlesex-London's household food expenditure is less than both the Province and the Country, the amount that households spend at restaurants is higher than both. Therefore, future action planning that is directed towards steering food dollars away from restaurants, especially fast food restaurants, and towards retailers of fresh, whole, healthy food can help to stretch residential budgets while increasing their health. However, this type of action needs to be combined with food literacy skills development work that empowers households to cook more often at home using fresh local ingredients. The Food Families program is a great example in London of how this is taking place at the community level.

Food Families

In London, neighbourhoods have been participating in Food Families, a dynamic program in which a group of neighbourhood families get together on a regular basis to form a network that supports, encourages, and mentors one another using food. This can take the form of purchasing, growing, sharing, learning and celebrating. The program aims to increase families' buying power and increase the sharing of practical and affordable ways to eat well.

Food Families was held in three neighbourhoods within London, Ontario: Carling neighbourhood (nine families), Central London neighbourhood (20 families), and Westminster neighbourhood (21 families). The evaluation completed on this project shows that participants enhanced their skills and confidence; gained knowledge, skills, and tools to eat health and make healthy choices; felt a greater sense of community, collaboration and deepened relationships between members of the program; and learned how to access new resources in their neighbourhoods.

(Source: Child & Youth Network, *Food Families Summary Evaluation Results*, 2015)

5.2 Gaps in Knowledge

Some important information on the purchasing of food across both Ontario and Canada, by type of establishment, was captured during this assessment. This information can be used to both contextualize and compare new data from Middlesex-London, as it becomes available;

¹⁰⁹ Statistics Canada, "Average Household Food Expenditure, by Province," 2013, Web, at <http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/famil132a-eng.htm>.

¹¹⁰ Statistics Canada, "Average Household Food Expenditure, Canada," 2013, Web at <http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/famil132a-eng.htm>.

however, there were a number of areas where information on food purchasing in Middlesex-London had not yet been documented. These areas include:

1. The total dollar value of **food purchased** in Middlesex-London, over the last 10 years, by type of establishment;
2. The total dollar value of **local food purchased** in Middlesex-London, over the last 10 years, by type of establishment; and,
3. The total dollar value of **household food budget increase** through the purchasing of food that is either healthy, local or sustainably produced, compared to the average household food budget.

The above information will help to assess changes in food purchasing behaviour by households in Middlesex-London over time. It will also help to determine how much a household food budget may need to increase for residents in the area to make local healthy food purchasing a reality. A research study similar to a Nutritious Food Basket study but unique to a “local” and “sustainable” food basket in Middlesex-London would be a great asset to the community.

In addition to such a study, there is an opportunity for additional research on the general public’s attitudes and behaviours toward healthy, local and sustainably produced food as well as the general eating habits by sub-population (broken down by age, gender, ethnicity, place of residence, education level, income level, etc.). The Middlesex-London Health Unit has started this process by collecting ongoing health related survey data—through the Rapid Risk Factor Surveillance System—related to public perceptions effecting purchasing and consumption of healthy, local and sustainably produced food.¹¹¹

5.3 Strengths and Assets

In Middlesex-London there are a variety of material, financial, and cultural food system assets that relate to food purchasing and consumption. To start, the high amount of household expenditure on food purchased from stores, as opposed to restaurants, is a financial asset that underlines a separate cultural asset; that is, the widespread cooking of food at home. This is significant because households with a tradition of preparing and cooking of food are more likely to pass on food literacy skills to younger generations than households who do not engage in cooking. Another cultural asset that key informants brought up during the interview stage is the overall support for local food and the increasing number of consumers demanding information on where food is coming from. This change in buying habits and increased consciousness of the average consumer reflect a Provincial, National, and Global trend towards

¹¹¹ The Rapid Risk Factor Surveillance System (RRFSS) began in 1999 as a pilot telephone survey of adults aged 18 years and older in Durham Region. The pilot project was a joint partnership between Health Canada, the Ontario Ministry of Health and Long-Term Care, Cancer Care Ontario and the Durham Region Health Department. The idea was to pilot test a risk factor survey based on the Behavioural Risk Factor Surveillance System (BRFSS) used in each state in the U.S.A (Source: Rapid Risk Factor Surveillance System, History, Web, at <http://www.rrfss.ca/>).

localizing food and celebrating where food comes from. This demand is driving more food businesses (material assets) in Middlesex-London to procure and serve local food and drink. Finally, in addition to many food retail stores, farm gates, and local food service champions, Middlesex-London is home to a large number of farmers’ markets that can serve the food purchasing and consumption habits of the public. A financial asset related to these farmers’ markets is the Middlesex-London’s Harvest Bucks program. For more information on this program, please refer to section 3.

Table 30 lists all of the strengths and assets identified through the community food assessment process that pertain to this section of the report (please see 1.2 for Asset Legend).

Table 30: Strengths and Assets within Food Purchasing and Consumption

FOOD PURCHASING AND CONSUMPTION						
						
50. SCOR food hub						
51. Farmers markets in London						
52. London Food Bank website						
53. London Community Resource Centre						
54. More restaurants are procuring and serving local food and drink						
						
55. Increased local food procurement from foodservice sector						
56. Community support for and interest in local food						
57. Wine and Food Show						
58. Summer festivals						
						
59. Foodland Ontario sections in grocery stores						
60. Cooking Matters cooking classes						
61. School boards						
62. Ontario Early Years Centre in London – some offer food skills for children						
63. Hamilton Road Food Prosperity Initiative						
64. Nutrition Ignition!						

FOOD PURCHASING AND CONSUMPTION

65. Lawson Health Research Institute

66. Life Resource Centre (low budget nutritious cooking and skills development)



67. High retail food expenditure

68. Local food businesses (e.g. The Root Cellar Organic Juice Bar & Café, Forked River Brewing Company)

69. Farmers and flea markets (e.g. London Bazaar)

70. Farm gates in Middlesex

71. Harvest Bucks

72. Food Families Program

73. Coupons for Hunger



74. London Intercommunity Health Centre

75. Youth Opportunities Unlimited

76. Salvation Army

77. YWCA

78. Healthy Food for Healthy Schools Act

79. Forage City London

80. Women's Rural Resource Centre

5.4 Areas to Cultivate

Fostering a culture of informed food purchasing and consumption is a precondition for long-term food system change. The findings and gaps in knowledge in this section, combined with insights shared by key informants and survey participants, point to an important area to cultivate around food purchasing and consumption: the collection and sharing of information. To start, the discrepancy between the 2009/2010 percentage of Middlesex-London residents who indicated that they consumed five or more fruits and vegetables per day and the 2011 percentage of people who actually met their daily-recommended intake suggests there is a real need to grow food literacy in the area. Community members also indicated that there is a need

to grow awareness around the true cost of fresh quality food. This awareness could help to combat false perceptions of how much food costs. Last, there is a lack of information on local food purchasing and consumption by the food retail, service and broader public sectors; therefore, there is a need to capture data on what types of food are being purchased, by type of establishment, and how much of this food is local. This data can then be used towards working with each sector to grow their local food procurement.

5.5 Opportunities for Change

A few opportunities to increase the purchasing and consumption of local food in Middlesex-London came up during the community engagement process, and food literacy remains the theme of these initiatives/activities. These opportunities include: setting up an interactive blog on food and food system issues; going into schools to educate and share information on local food and food system issues; educating people on the importance of not only whole foods but also which of these foods come from local farms; and setting up classes for people who have not been taught how to prepare food or how to prepare food on a budget. In addition to these initiatives, it is important to consider using outside resources and activities towards achieving changes in food purchasing and consumption. The Greenbelt Fund (see above) and the Feast ON program (see section 4.1) are two examples of Provincial assets that the community can access. Setting a food purchasing goal for Middlesex-London—for example, 15% of all food dollars are localized by 2020—is another great way for the community to align stakeholders from across the local food system under one comprehensive strategy. This will require everyone to work together on defining which activities will need to take place as well as measures that need to be used towards realizing this goal.

“It’s appalling the amount of imported food we have in stores that are available here locally grown.”

- *Survey Respondent*

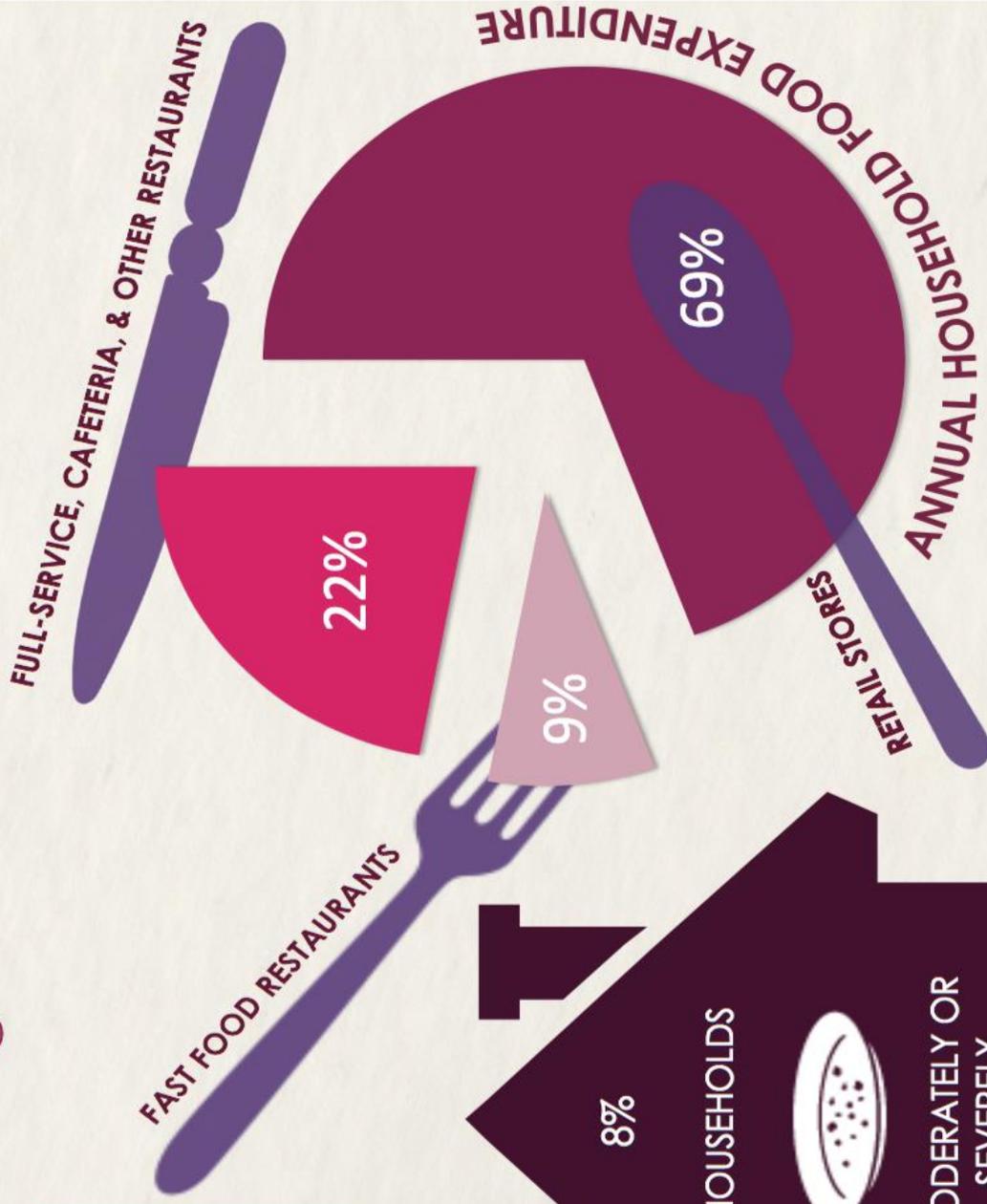
5.0 Food Purchasing and Consumption

\$11,892,750,000

SPENT ON FOOD BY THE CANADIAN FOODSERVICE SECTOR

\$4,588,500,000

SPENT ON FOOD BY THE ONTARIO FOODSERVICE SECTOR



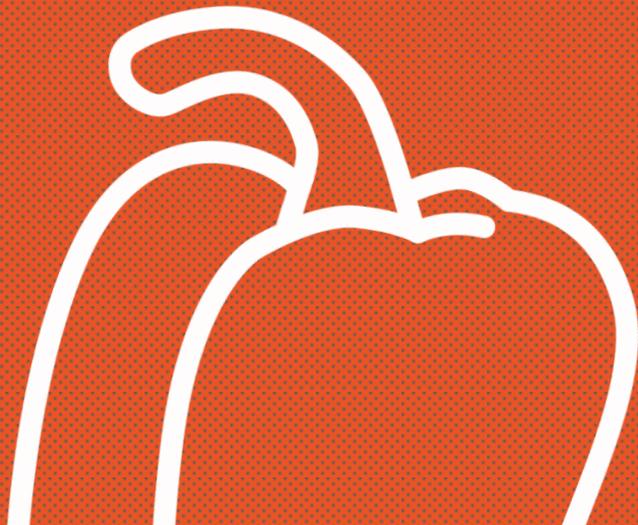
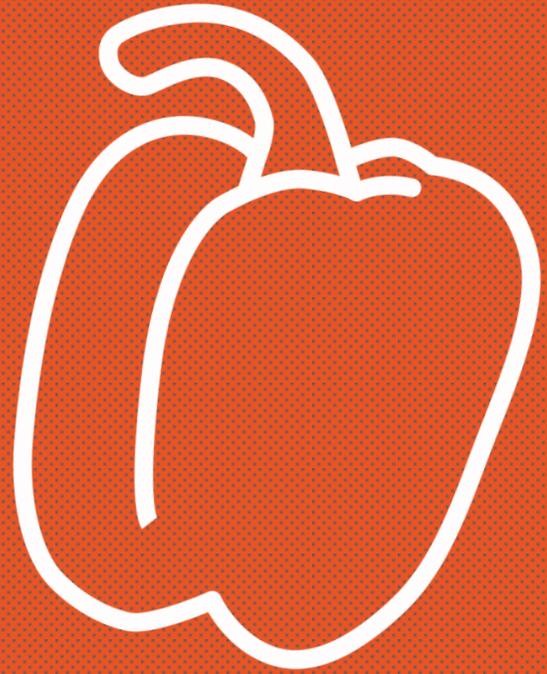
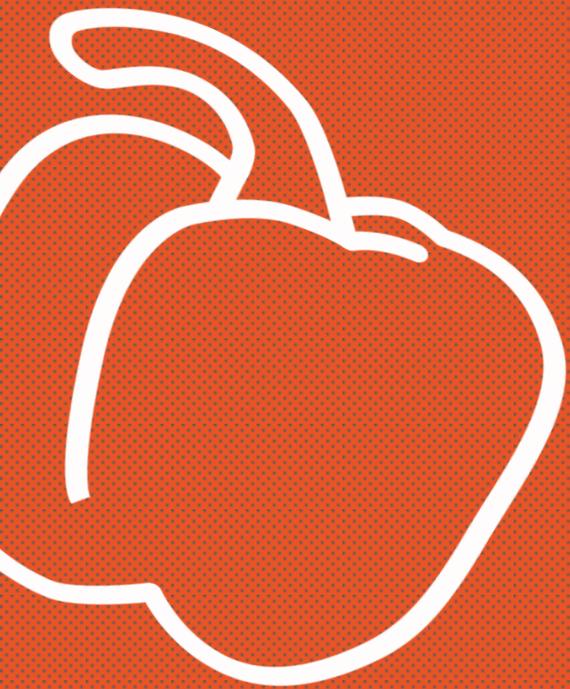
DAIRY & EGGS

\$144,667,240

VEG

\$98,170,398

6.0 FOOD EDUCATION, KNOWLEDGE AND LITERACY



6.0 FOOD EDUCATION, KNOWLEDGE AND LITERACY

6.1 Findings

The Ministry of Agriculture, Food and Rural Affairs defines food literacy as “understanding why local food is important, knowing what local food is available and when, knowing how to prepare local food and knowing where local food comes from.”¹¹² More generally, food literacy is a set of skills that help us plan, prepare, and cook meals for ourselves, and our families. These skills help us prepare food that is healthy, tasty, and affordable. They can also build our confidence and help us problem solve when working with food.¹¹³ As the Local Food Act for Ontario moved through the legislative process, food literacy was identified as a top priority. The ministry established the following three food literacy goals on January 28, 2015:

1. Increase the number of Ontarians who know what local foods are available.
2. Increase the number of Ontarians who know how and where to obtain local foods.
3. Increase the number of Ontarians who prepare local food meals for family and friends, and make local food more available through food service providers.¹¹⁴

Nutrition Ignition!

A comprehensive school-based nutrition and physical education program for school-aged children and their families. The goal of the program is to promote an improved knowledge and awareness towards a healthy lifestyle in children and their families by taking a whole school approach, addressing intrapersonal, interpersonal and community factors known to influence behaviour change. The program consists of three 40-minute classroom lessons, monthly “Dance/Fitness” events, monthly “Snack Attacks,” family events, Brescia/UWO Field trip days, monthly bulletin boards, and a website for families. The program currently runs within three Catholic elementary schools and is built on strong relationships between the schools, Western University and Brescia University College.

(Source: Danielle Battram of Western University [Nutrition Ignition! Researcher])

Additionally, Ontario’s Food and Nutrition Strategy for 2015 has identified Food Literacy and Skills as one of its strategic directions. Action areas of focus within this strategic direction include increased healthy eating knowledge, skills and capacity; restricted advertisement of unhealthy food, beverages and snacks to children; enhanced services for at-risk populations; increased access to public information about healthy eating through retailers and food services; and increased availability of professional nutrition services. The Ontario Food and Nutrition

¹¹² Province of Ontario, Ontario’s Local Food Report, 2014-2015 Edition, 2015 Print, at p. 9.

¹¹³ Ontario Society of Nutrition Professionals in Public Health, Food Literacy Flyer, Web. at <http://www.osnpnh.on.ca/upload/membership/document/foodliteracy-flyer-final-ps.pdf>

¹¹⁴ Province of Ontario, Ontario’s Local Food Report, 2014-2015 Edition, 2015, Print.

Strategy argues that a focus on food literacy and skills is necessary for sustaining positive food system change and improving public health.¹¹⁵

This section on the environmental scan focuses on highlighting the activities occurring in Middlesex-London that pertain to food education, food knowledge, and food literacy. More specifically, this section aims:

- To provide an overview of the food literacy initiatives in the area (i.e. food budgeting, grocery shopping, cooking, growing, etc.) and who is targeted;
- To provide an overview of how the formal and informal educational programming in the area has implemented a focus on food education; and
- To provide an account of the public knowledge and opinions about healthy, local and sustainable food in the area.

The Local Food Report, provided by the Government of Ontario, provides an annual report on the government's local food activities. Within this report, Ontarians were interviewed regarding their knowledge of local food, to get an understanding of people's food knowledge and literacy.

Research of 1,500 principal grocery shoppers demonstrates that many Ontarians have a good understanding of what Ontario-grown produce is available in season. In the survey, two-thirds of shoppers can identify half or more of the produce grown seasonally in the province; however, consumers experienced more difficulty identifying produce that is available year round (only 40% of shoppers were able to identify at least one product grown in Ontario throughout the year).¹¹⁶ Product knowledge also tended to differ by category as 80% of shoppers found it easy or very easy to identify Ontario grown fruits and vegetables; however the ability to identify products drops to 55% for Ontario-produced meat.¹¹⁷ These results support the notion that Ontarians are food literate; however, there is definitely room for improvement. This is especially true in particular populations such as Indigenous peoples, lone-parent families, women and children, immigrants and the elderly who have shown to be at greater risk of being less food literate when compared to the general population, in turn, making these populations more likely to be food insecure.¹¹⁸ In order to improve food literacy amongst Middlesex-London residents, a number of programs and courses are offered.

Food Education, Knowledge and Literacy in the Classroom

Numerous elementary and post-secondary schools have developed Ontario Student Nutrition Programs (OSNP) (mentioned previously in Section 3.1). These programs are a provincial initiative that functions to provide nutritious food to children and youth. This aids students to attend school well-nourished and ready to learn. While the program primarily focuses on

¹¹⁵ Ontario Food and Nutrition Strategy, Technical Report, 2015, Print, at pp.4-22.

¹¹⁶ Province of Ontario, Ontario's Local Food Report, 2014-2015 Edition, 2015, Print.

¹¹⁷ Province of Ontario, Ontario's Local Food Report, 2014-2015 Edition, 2015, Print.

¹¹⁸ Alison Howard and Jessica Edge, Enough for All: Household Food Security in Canada, 2013.

providing nutritious food, many of the programs within the schools also provide food education for the students (providing nutritional facts, cooking classes, and program wide initiatives, such as, the Great Big Crunch).

Within Middlesex-London there are 133 elementary and secondary schools, of which 80 participated in OSNPs during the 2014-2015 school year. This shows an increase of seven schools from the previous school year (2013-2014). Of the 80 schools that participated in OSNP in 2014-2015, 56 of the programs take place in elementary schools and 24 are in secondary schools.¹¹⁹ When compared to the total number of elementary and secondary schools in Middlesex-London, only 54% of elementary schools offer OSNP whereas almost 100% of high schools offer OSNPs.

Let's Get Cookin'

A cooking program, which trains volunteers from the school community to teach junior, intermediate and secondary school youth basic cooking skills. There are seven core sessions associated with the program. The first session is a student orientation session with six successive core cooking sessions.

The program provides basic nutrition tips and includes recipes that emphasize vegetables and fruits; It is based on a "train the trainer" model; Trained volunteers from the school community lead the *Let's Get Cookin'* program; All volunteers must be trained by the Middlesex-London Health Unit before leading the program in their school community.

Each cooking session has a theme (e.g. breakfast, lunch, snacks etc.). The recipes in the program are based on Canada's Food Guide and each recipe includes either a vegetable or a fruit.

(Source: Middlesex-London Health Unit, <https://www.healthunit.com/lets-get-cookin>)

Additionally, the Middlesex-London Health Unit offers a program, Let's Get Cookin', to teach junior, intermediate and secondary school youth how to cook (see textbox for more information). The program functions within a train-the-trainer model and since its commencement in 2012, 166 facilitators have been trained in the program. This breaks down to 44 schools and eight community agencies with trained facilitators.¹²⁰

Children and youth are also able to enhance their food education through course work. Students in grades 1-9 are required to complete a credit each year in Physical Education and Health. A part of the Health aspect of this course teaches students about healthy eating and student nutrition; however, there is limited knowledge of what is actually being taught, if its relative to the teach, and how much of what is taught is dependent on food skills. After grade 9, students are no longer required to take Physical Education and Health.¹²¹ Secondary students

¹¹⁹ London Middlesex County, Coordinator at Ontario Student Nutrition Program, 2015.

¹²⁰ Dietitian for Let's Get Cookin', 2015.

¹²¹ The Ontario Curriculum Grades 9 to 12: Health and Physical Education, 2015, Print, at pp.109-187.

are also able to enrol in hospitality and tourism classes where they learn to prepare, present and serve food.

Higher-grade level courses within hospitality and tourism (grades 11 and 12) are designed to prepare students for a career in baking and/or with Chef training. It is important to note that while Let's Get Cookin' and hospitality classes offer a great opportunity for children and youth to learn to prepare food, these opportunities and courses are not mandatory in the Ontario curriculum.¹²² With the absence of home economics in Ontario's curriculum, many argue that children and youth are provided with insufficient means to learn basic life skills, including those that foster food literacy. Home economics courses previously provided students with knowledge about balancing food budgets, planning meals, health and nutrition, and cooking and baking. It is recommended that food education be built into school curriculum to ensure that students are learning about food, given the important and never ending role it plays in everyone's day-to-day lives.

Some children and youth are able to learn about food and the food system if their school has a school garden. For example, John Paul II Catholic Secondary School in London, recently created a school garden where students learn to produce their own food in an urban setting. The Principal noted that the garden is a great teaching tool for the students, where students built garden boxes to hold plants such as cherry tomatoes, cauliflower, carrots, onions and green beans.¹²³

Academic courses that improve food knowledge are also available at the post-secondary level. In London there are two local universities (Western University and Brescia) and a local college (Fanshawe College). Middlesex does not have any post-secondary institutions. In London, a large number of university and college courses that focus on the food system are available. This includes 41 courses at Western (39 courses in Food and Nutrition, one in Geography and one in Sociology); 32 courses through the Food and Nutrition Department at Brescia (32 courses offered through 11 programs¹²⁴); and 88 courses through Fanshawe College (88 courses through eight programs¹²⁵).

¹²² Ministry of Education. "What do you need to graduate?" 2015, Web, at <http://www.edu.gov.on.ca/extra/eng/ppm/graduate.html>

¹²³ The London Free Press, "Urban Garden at John Paul II Catholic Secondary School in London a Big Hit," 2015, Web, at <http://www.lfpress.com/2015/09/18/urban-garden-at-john-paul-ii-catholic-secondary-school-in-london-a-big-hit>

¹²⁴ Food and Nutrition Programs include: Honours Specialization in Nutrition and Dietetics (BSc), Honours Specialization in Food Science and Technology (BSc), Honours Specialization in Nutrition and Families (BA), Honours Specialization in Food Management (BMOS), Honours Specialization in Nutrition and Dietetics/HBA Combined Degree Program, Specialization in Foods and Nutrition (BSc), Specialization in Nutrition and Families (BA), Specialization in Food Management (BMOS), Major in Nutrition and Families, Major in Food Management (BMOS) and Minor in Foods and Nutrition.

¹²⁵ Programs at Fanshawe College offering courses with a focus on the food system include: Culinary Skills, Food and Nutrition Management, Dental Assisting, Baking and Pastry Arts Management, Practical Nursing, Hospitality Management- Food and Beverage, Horticulture Technician and Dental Hygiene.

At the continuing education level, Fanshawe College offers a graduate certificate in Artisanal Culinary Arts, which incorporates 11 courses with a focus on the food system. While Western University does not offer any continuing education classes for adults related to the food system, Brescia (an affiliation of Western University) offers a Masters in Food and Nutrition, which contains five courses with a focus on the food system. It should be noted that while Middlesex-London has a wide range of post-secondary opportunities to learn about food and the food system, these opportunities cost several hundred dollars to enrol and often require enrolling in a particular degree.¹²⁶

As can be seen through the number of student nutrition courses and post-secondary university classes, Middlesex- London offers a wide variety of formal learning opportunities in regards to learning about food. These learning opportunities are consistent with the Province of Ontario’s goal to increase food literacy.

Food Education, Knowledge and Literacy in the Community

Outside of the academic environment, residents of Middlesex-London also have opportunities to learn about food and the food system. Middlesex-London offers a range of programming to improve people’s food skills; at least 27 examples were identified through secondary research. Table 31 contains a list of some organizations offering food skills programming and the name of the program; however, this is neither an exhaustive list nor contains multiple programs that organizations may offer. In addition, some programs may fall under more than one category.

Table 31: Examples of Food Skills Programming in Middlesex-London

Organization	Program Name
Community-Based	
Adaptive Cooking	Cooking Classes (designed for improving the navigation of own kitchen for persons with disabilities)
Crouch Neighbourhood Resource Centre	Slow Food Collective Program & Canning Classes (usually just in Fall)
Glen Cairn Community Resource Centre	In Partnership with: Compass Community Church or London Training Centre
London Intercommunity Health Centre (Huron Location)	Canning Classes & Cooking on a Budget, program by NELCE
London Training Centre	Local Food Skills Program; Safe Food Handling; Smart Serve; Culinary Pre-Apprenticeship
Middlesex-London Health Unit	Let's Get Cookin' ('train the trainer' program)
South London Community Centre	Cooking Program
Thames Valley District School Board: Adult, Alternative & Continuing Education	Lifeskills - Cooking; Cooking Classes
London Community Resource Centre	Grow Cook Learn
Life Resource Centre	Community Kitchen Cooking Classes

¹²⁶ Fanshawe College, “Admission Fees,” 2015, Web, at <http://www.fanshawec.ca/admissions/tuition-fees>.

Organization	Program Name
Youth Focused	
Carling- Thames Family Centre	Stir It Up with Literacy Program; Kids Cooking; & Sprout Gardening Program
Crouch Neighbourhood Resource Centre	As part of Funky Foods
Family Centre Argyle (in Lord Nelson Public School)	Stir It up
Glen Cairn Community Resource Centre	In partnership with Compass Community Church or London Training Centre
Growing Chefs!	Growing Communities; School Project
London Community Resource Centre	Cook It Up!
N'Amerind (London) Friendship Centre	As part of the Wasa-Nabin Program
Northwest London Resource Centre	As part of an after school program
South London Community Centre	Youth Chefs
The Boys & Girls Club of London	As part of the M.A.P Program
White Oaks Family Centre	Stir It up
YMCA of Western Ontario	In Partnership with Growing Chefs!
College Courses	
Fanshawe College	Chef Training
Private Business (*potentially Fee-based)	
Aroma Restaurant	Cooking Studio
Chef Chris Squire	Cooking Classes
Cooking Matters	Cooking Classes by Chef Suki Kaur-Cosier
Jill's Table	Cooking Classes
Kiss The Cook	Cooking Classes
PC Cooking School	Adult Classes; Teen Classes; Kids Classes

Food education, knowledge and literacy can also be accessed and improved through means of social media. Recent studies show that an increasing number of people, especially youth, rely on social media to access information and that social media serves as a tool for enhanced learning opportunities and awareness raising.¹²⁷

Social media communication regarding the local food system within Middlesex County often utilizes two hashtags (one to specify geographical location and one to communicate about the food system). The table below illustrates hashtags that are currently trending on the geographical area and the local food system. While there are three hashtags that specify the City of London as a geographical area, there is not one that focuses on Middlesex County. The hashtag #MiddlesexCounty is currently being used to specify the geographical area of Middlesex County, New Jersey.

¹²⁷ Gween Schurgin O'Keeffe and Kathleen Clarke-Pearson, *The Impact of Social Media on Children, Adolescents, and Families*, 127(4), 2011.

Table 32: Geographical Hashtags for Middlesex-London and Popular Food System Hashtags (Source: Twitter, 2015; Bucky Box, Hashtags for Local Food, 2012)

Geographical Hashtags		
#Ldnont		
#Downtownlondon		
#londonontario		
Food System Hashtags		
#publichealth	#eatlocal	#foodchat
#farmersmarket	#agriculture	#farming
#fresh	#AgGen	#goodfood
#local	#foodbloggers	#SustainableAg
#food	#SustAg	#Agroecology
#organic	#foodsystem	#profood
#nutrition	#eatlocal	#locavore
#localfood	#realfood	#SlowFood
#foodsecurity	#SlowMoney	#foodies
#agchat	#UrbanAg	#CSA
#FoodHub	#permaculture	#biodynamic
#FoodRevolution	#FoodSummit	
#localfoodsoftware	#foodtech	

A list of Twitter leaders and influencers within the local food system who communicate on social media using the above noted hashtags are listed in the table below. These Twitter accounts were selected through searching a combination of the geographical hashtags and food system hashtags noted above. This is not an exhaustive list and in no way should be seen as an endorsement of the handles; however, it serves as a sampling of Twitter leaders on the local food system. The list is intended to assist in the further development of an online “local food” community in Middlesex-London.

Table 33: Twitter Accounts Tweeting about the Middlesex-London Food System (Source: Twitter, August-October 2015)

Twitter Handle	Number of Followers
@LondonSoup	1265
@FarmBoy	5077
@London_Training	2301
@WFFarmerMkt	5351
@LondonGetsLocal	1046
@LDNCommFdn	3388
@CouponForHunger	357
@EcoPlaceOrganic	790
@VegFestLondon	950
@RootCellarLdn	1618
@Soho_market	784
@MasonvilleMkt	1594

Twitter Handle	Number of Followers
@YMICafe	1297
@Heemans	3090
@CoventMarket	6334
@LondonFoodBank	2141
@FoodNotLawnsLDN	571
@realissue	530
@growingchefs	1515
@MLHealthUnit	7866
@WestministerLdn	297
@LondonCRC	670
@MasonvilleMkt	1667
@southdalemkt	240
@Nutritionbites8	918
@EatGreenOrganic	538

The Healthy Kids Community Challenge

Through the Healthy Kids Community Challenge 45 communities in Ontario, including both Middlesex County and London, will receive resources (funding, training, and marketing tools) over a four-year period from the Province of Ontario to help promote healthy eating, physical activity, and healthy behaviours for children through community programs and activities. The Healthy Kids Community Challenge is based on the EPODE (Ensemble Prevenons l'Obesite des Enfants – Together Let's Prevent Childhood Obesity) methodology. This strategy began in France and has been recognized as an international best practice in obesity prevention by the World Health Organization. The EPODE model has the potential to be applied to other types of community programming in order to evaluate their effectiveness.

Source: Government of Ontario, Ministry of Health and Long-Term Care

<http://www.health.gov.on.ca/en/public/programs/healthykids/hkcc.aspx#communities>

Food system stakeholders noted specific resources as being particularly **useful to them** for staying informed about the Middlesex-London food system. These are listed in table 3.4.¹²⁸

¹²⁸ This report is not endorsing the resources listed in Table 34; they are simply the one stakeholders identified during the CFA process.

Table 34: Communication Resources Identified by Community Stakeholders

Food Secure Canada – webinars and resources	Local Food for Local People committee (Elgin County)
Food Not Lawns – webinars	Child & Youth Network
Seeds of Diversity – mailings	Ontario Trillium Foundation
Pillar non-profit – resources and trainings	London Environmental Network – trainings and event promotions
Local Gets Local Facebook group	Community Gardens London
CityFarmer.info	Forage City London
Sustain Ontario resource library	Colleagues at OMAFRA
Pfenning’s Organic Farm	On the Move Organics – emails
Victoria Order of Nurses (OSNP)	Sustain Ontario Facebook page
Poverty Research Centre	Good Food Organizations
Food Land Ontario	Bryan Lavery
Eat Drink Magazine	Heemans Farm
Growing Chefs!	Food section of the Globe and Mail
Bon Appetite magazine	Fine Cooking magazine
Ontario Cow Feeders Association	Ontario Pork – Newsletter
London Food Bank – website	London’s Carolinian Food Forest
Beautiful Edibles	Ontario Edible Education Network
Middlesex-London Health Unit	Community Foundation London
London Community Resource Centre	Community Food Centre Canada – POD exchange, newsletter, and social media

As can be seen from the information above, there are a number of opportunities for people of all ages to learn about food and the food system. Unfortunately, there are a limited number of these opportunities that are mandatory. Roughly twenty to thirty years ago, students were required to take home economics, where they learned basic cooking skills, sewing, how to stock a pantry, healthy eating and nutrition, and meal planning. When home economics was removed

from the curriculum, the information it taught was not completely covered by other courses, and the courses that did cover some of the information were not mandatory courses. As a result, this has left today's children lacking key knowledge about food and the food system. There are opportunities to see greater engagement by children and youth in learning about food and the food system by encouraging children and youth to seek these opportunities on their own, possibly by making this a "cool" topic to learn about, or through making learning this knowledge mandatory by building it into existing and/or new curriculum.

6.2 Gaps in Knowledge

Although there are a number of different opportunities for people to engage in food education efforts within Middlesex-London, we do not have a clear indication of how many people within Middlesex-London are taking part in these programs, courses, and using the resources available to them. Without this information, we cannot know how many Middlesex-London residents are learning about food and the food system.

The list of local food system leaders via Facebook and Twitter is neither comprehensive nor been evaluated. The Twitter list was gathered via local food system hashtags; therefore, it is highly likely that more local food system leaders are using Twitter and hashtags that haven't been included in the search. Similarly, the list of Facebook food system leaders was populated through conversations with key local food system stakeholders. As a result, it is highly likely that there are Facebook leaders that have not been included.

6.3 Strengths and Assets

There are several assets within food education, knowledge and literacy in Middlesex-London. Over 50% of elementary and secondary schools in London and Middlesex County offered Ontario Student Nutrition Programs (80 of 140 schools) in the 2014-2015 school year. Of these programs, over two-thirds (56) are held in elementary schools and 73% of high schools have OSNPs. John Paul II Catholic Secondary School's school garden was noted as an asset in helping to improve youth's food literacy skills and knowledge. Food education is also widely available at the post-secondary level within Middlesex-London. Food education courses at the post-secondary level are offered through Western, Fanshawe and Brescia and focus on the food system ranging from production to consumption. There are also a variety in food education courses offered through community organizations and private businesses that target people of different ages (targeted audiences of children, youth, adults and families). Additionally, the Child and Youth Network is engaged in multiple projects that teach children and youth about healthy eating as well as other projects focusing on food security in London. It was noted by community members, during consultations through the Community Food Assessment process, that more and more people are becoming interested in knowing where their food comes from and are taking steps to learn more about the food system.

Programming related to food, specifically Growing Chefs!, Nutrition Ignition!, Life Resource Centre’s Community Kitchen Cooking Class, and the London Training Centre’s Local Food Skills program were noted as strengths. These assets can be leveraged and built upon to increase food literacy in Middlesex-London. As people become more food literate, the potential to advance the movement for a more sustainable, local healthy food system becomes greater as people are more familiar with the issues in need of addressing within the local food system. The Conference Board of Canada articulates that food literate populations impact the local food system as they become especially concerned with environmental outcomes including; the presence of pesticides, antibiotics, and growth hormones. Food literate populations are also increasingly concerned with dietary and health outcomes that result from the food they consume.¹²⁹

Table 35 lists all of the strengths and assets identified through the community food assessment process that pertain to this section of the report (please see 1.2 for Asset Legend).

Table 35: Strengths and Assets within Food Education, Knowledge and Literacy

FOOD EDUCATION, KNOWLEDGE AND LITERACY						
						
81. Growing Chefs! London, Ontario						
82. Community support for and interest in local food						
						
83. Food education courses at the post-secondary level offered through Western University, Fanshawe College and Brescia University College						
84. Brescia University College (Foods and Nutrition program)						
85. Fanshawe’s culinary programs						
86. School garden at John Paul II Catholic Secondary School						
						
87. Nutrition Ignition!						
88. Life Resource Centre (low budget nutritious cooking and skills development)						
						

¹²⁹ The Conference Board of Canada, What’s to Eat? Improving Food Literacy in Canada, 2013.

FOOD EDUCATION, KNOWLEDGE AND LITERACY

89. Over half of elementary and secondary schools in London and Middlesex County offered Ontario Student Nutrition Programs (80 of 140 schools); 73% of high schools with OSNP

90. Child and Youth Network (Healthy Eating Initiative)

6.4 Areas to Cultivate

One key area to cultivate within Food Education, Knowledge and Literacy pertains to the limited opportunities children and youth are exposed to in which they learn about food and the food system.

For those that are older, post-secondary courses require students to register in nutrition/culinary-related programs to learn about the food system and these are expensive. Often times, even people who are passionate about food have difficulty finding programming (post secondary and community based programming) that will teach them food preparation skills. Overall, it appears that people receive little education on the local food system (more specifically, basic food nutrition, purchasing and preparation of healthy food, and food production).

Also noted was a lack of awareness about the London Food Charter and a focus on food security as the most prominent issue within the food system. Community members noted that by focusing primarily on food security issues, the importance of food sovereignty in building a strong, resilient local food system is undermined.

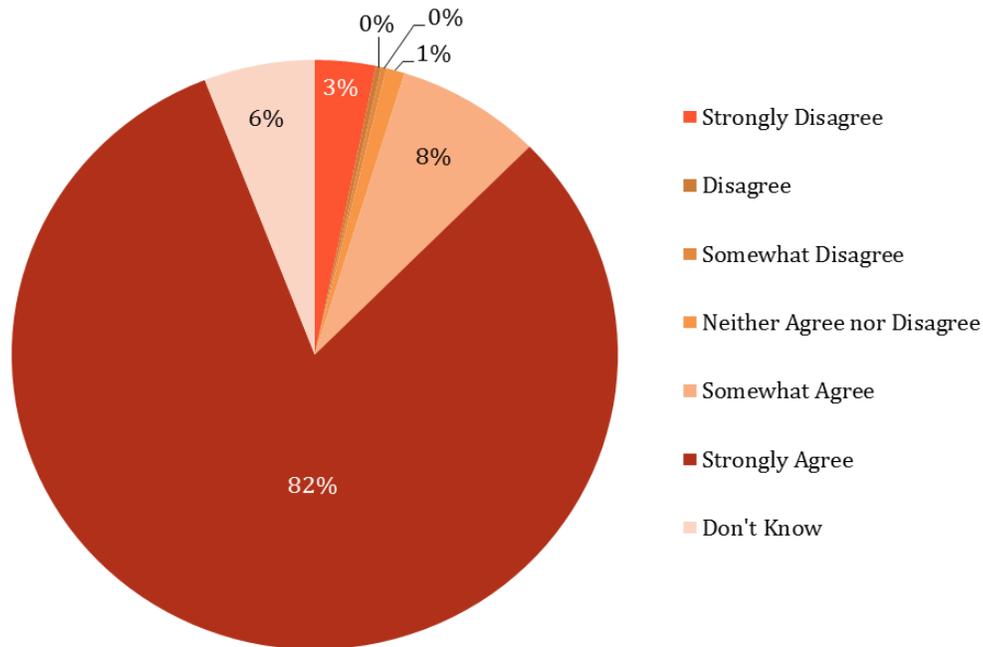
6.5 Opportunities for Change

Through the community survey, residents of Middlesex-London were asked to rate their level of agreement with the following statement: “It is important that children, youth and young adults learn about food and the food system.” Overall, residents were highly supportive of this statement. 82% of respondents strongly agreed with this statement, 8% somewhat agreed, and the remaining 10% either didn’t agree or disagree, strongly disagree, or didn’t know how they felt about the statement. When compared to other food system issues, opportunities for children, youth, and young adults to learn about food and the food system was the second most supported issue.

“Not just one-time learning opportunities, need a required course where all kids need to learn the basics.”

- *Survey Respondent*

Figure 47: It is Important that Children, Youth and Young Adults Learn About Food and the Food System



In identifying the need for children, youth, and young adults to learn about food and the food system, several opportunities exist to make this a reality. Within the school system, an opportunity exists to build more food education curriculum into the Ontario Student Nutrition Program and also, make course material on the food system mandatory (e.g. through field trips to farms, greenhouses, and farmers’ markets, having farmers visit the classrooms, and school gardens). School gardens are a highly effective learning environment that can enhance any school’s ability to improve children’s food literacy. Additionally, if policies about external agencies/individuals were less restrictive, existing education opportunities could be scaled up to teach more students, and teach them on a more regular basis.

Outside of the school system, opportunities exist to educate people about healthy eating and the benefits of buying local food. More generally, opportunities are available to increase food literacy through the creation of a food literacy working group; the group would develop a common food literacy message which could then be disseminated through their networks to residents of Middlesex-London (e.g. through social media). Lastly, an opportunity exists to pilot food based projects (aimed to increase food literacy) with a comprehensive evaluation strategy so participant’s knowledge can be assessed pre-and-post project. This will enable a better understanding of which projects (i.e. school garden, community garden, cooking classes) increase food literacy amongst residents the most.

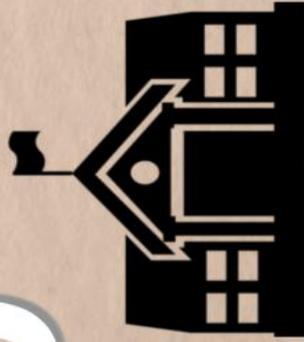
“I wish people were more aware of how important local food production is to the security of our community and the nation. We cannot depend on the global food supply to provide good, consistent food in the future.”

- Survey Respondent

6.0 FOOD EDUCATION, KNOWLEDGE AND LITERACY

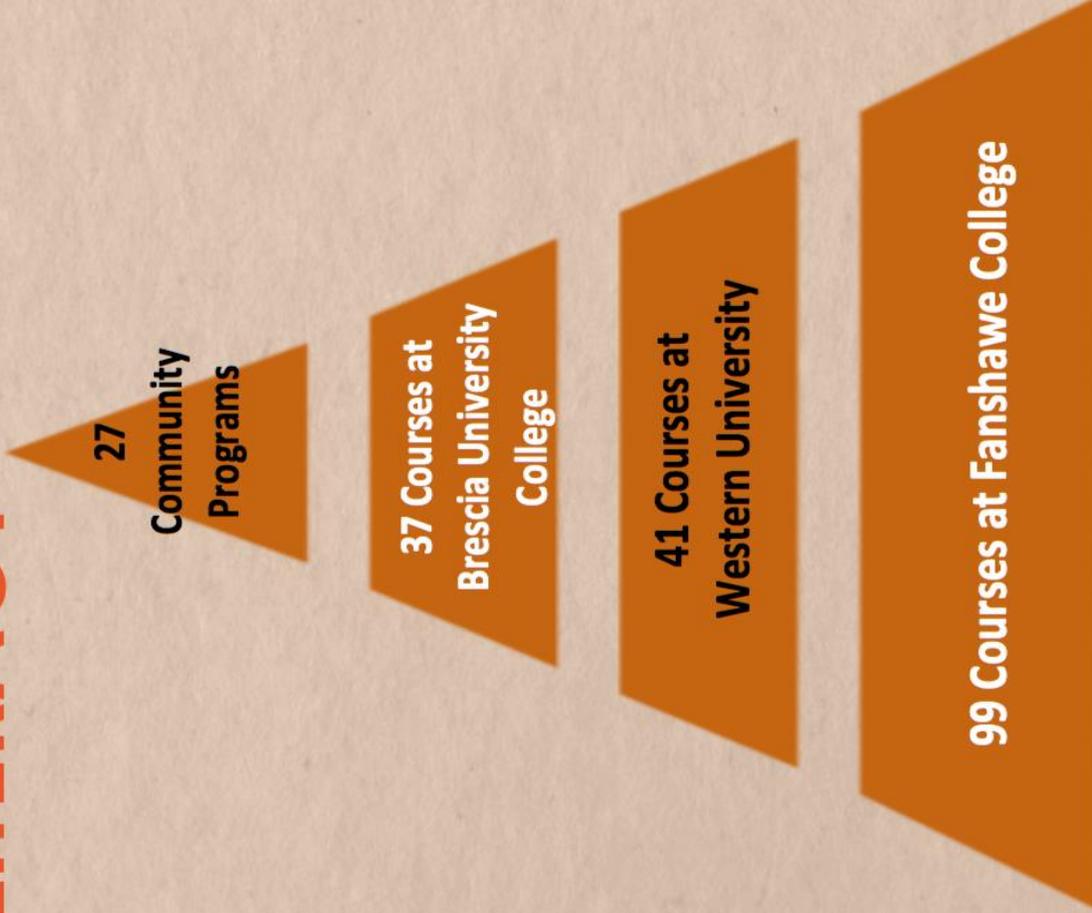
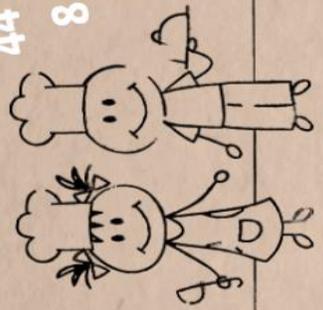
80

OSNP



166

Let's Got Cookin'
Facilitators in
44 schools &
8 community
agencies



Increasing Food Literacy

@MLHealthUnit
7866 

@CoventMarket
6334

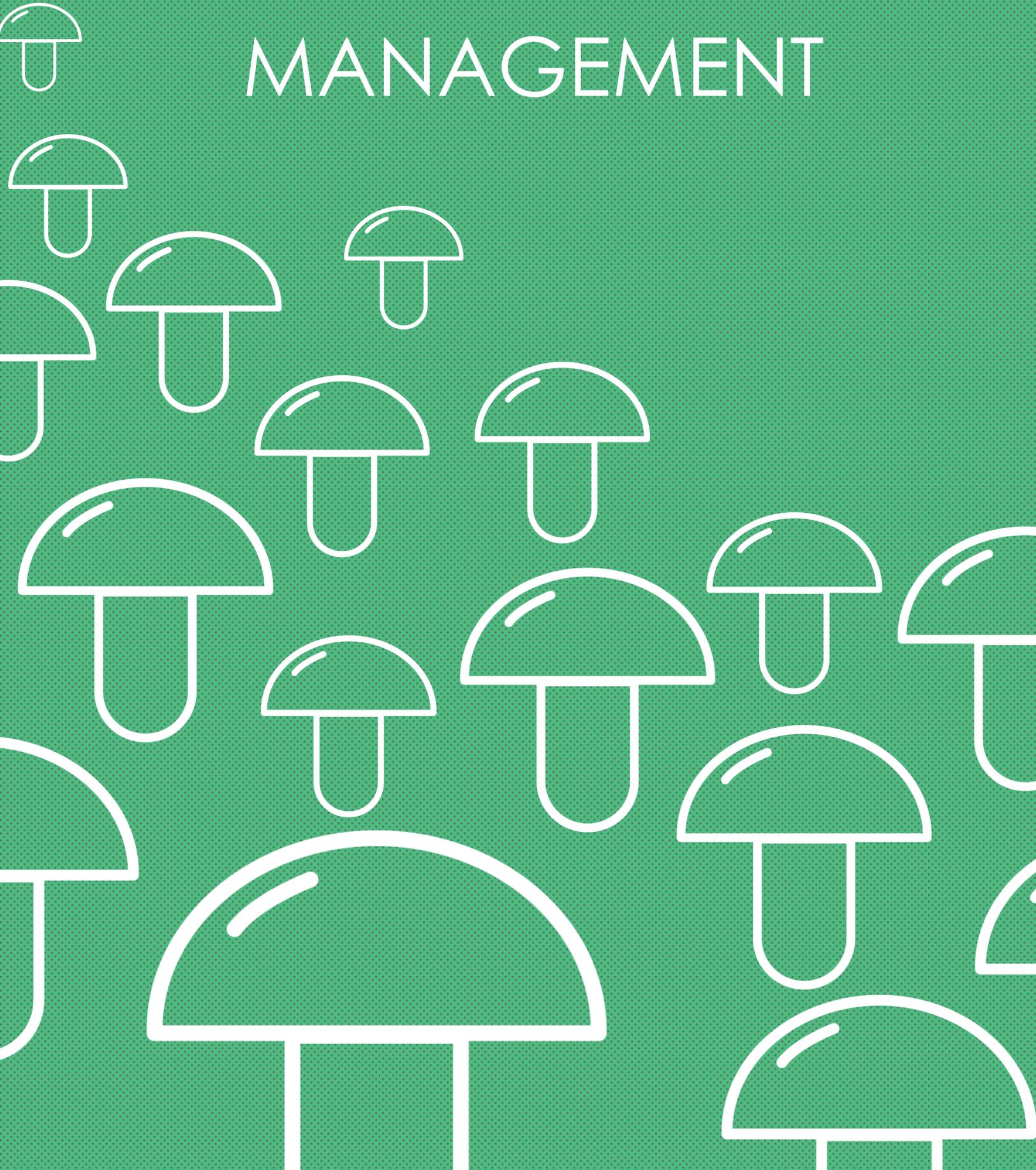
@WFFarmerMkt
5351 

@FarmBoy
5077 

@LDNCommFdn
3388

@Heemans
3090 

7.0 FOOD WASTE MANAGEMENT



7.0 FOOD WASTE MANAGEMENT

7.1 Findings

This section serves to provide both an introduction to food waste in Canada and an overview of food waste and food waste management in Middlesex-London.

The objectives of this section are:

- To assess the different types of waste across the food value chain;
- To identify the impacts of food waste;
- To quantify the different types of food waste in Middlesex-London, from producer-to-consumer;
- To document initiatives and efforts that have been made to reduce food system waste in the local community; and
- To assess the effectiveness of current efforts to reduce food system waste.

After food waste in Canada and its impacts are discussed, this section explores food waste and food waste management in Middlesex-London. The initiatives and efforts that are being made to reduce food waste in the area are limited; therefore, additional attention is paid to opportunities for food waste management change in Middlesex-London. Some of these opportunities, which require a value chain approach to be taken, exist at the individual household and municipal levels require the support of innovative policy.

Food Waste

The term food waste is broadly used to describe “food or edible material (both solid food and liquids) originally meant for human consumption in its entirety (such as fruit and vegetables) or after processing (such as wheat into flour, then bread), but is lost along the food chain.”¹³⁰

This umbrella definition of food waste includes both food loss—which takes place at the beginning and middle stages of the food supply chain and may result from either environmental or human factors—and food waste, as it is traditionally understood, as being the loss of food at the end of the supply chain.¹³¹ However, when food waste is reported, what is often accounted for is only “terminal” food waste, which is the matter that goes into landfills or is used for composting.¹³² For this reason, when speaking about food waste and especially when planning food waste change, it is important to consider food waste as including “any activity that costs

¹³⁰ Nicoleta Uzea et al., “Developing an Industry Led Approach to Addressing Food Waste in Canada,” Provision Coalition, 2013, Print, at p. 10.

¹³¹ Nicoleta Uzea et al., “Developing an Industry Led Approach to Addressing Food Waste in Canada,” Provision Coalition, 2013, Print, at p. 10.

¹³² Martin Gooch, et al. “Food Waste in Canada,” George Morris Centre, November 2010, Print, at p. 2.

more than the value it creates.”¹³³ This Community Food Assessment report does not distinguish between food loss and “terminal” food waste; therefore, when the term food waste is used it is meant to encompass both food loss and the broader definition of food waste, unless otherwise stated.

Contrary to popular belief, neither “food miles” nor the “plastic packaging” used throughout a food product life cycle are the primary causes of waste.¹³⁴ Seven factors have been identified as contributing to the creation of various forms of food waste, and these factors result from the behaviour of individuals. These factors include: overproduction, defects in products or equipment, unnecessary inventory, inappropriate processing, excessive transportation, waiting, and unnecessary motion. These factors are manifest by individuals in different ways, depending on where along the food value chain the individual is located. However, unnecessary inventory, for example, “occurs at any point along the chain, including households,” and this creates a diverse set of wastes, including: “*excessive delay, poor customer service, long cycle times, excessive spoilage.*”¹³⁵ Therefore, any local plans for waste recovery and management in Middlesex-London will need to identify where and how the seven creators of waste are contributing to the waste problem in the area, and ultimately, who needs to be part of the solution.

Food Waste in Canada

Food waste in Canada is a \$27 billion annual problem that sees 40% of all the food produced processed, distributed and sold across the country, not being consumed. The economic impact of this problem can be put in perspective by comparing it to either the total amount that Canadians spent at restaurants in 2009 or the combined Gross Domestic Product of the 32 poorest countries.¹³⁶ What is most interesting about the food waste problem in Canada is that, while food waste is taking place right across the food value chain, the distribution of food waste is very uneven. The Agri-food@Ivey and Value Chain Management Centre have mapped out the distribution of food waste in a way that connects the size and scope of the problem to the primary value chain contributors, specific hot spots, root causes, and most importantly, the stakeholders who can change the outcome.

Table 36 is an adaptation of their Food Waste Problem Map. Households, which are creating 51% of the food waste in Canada, are by far the greatest contributor to the problem, followed by the processing and packaging industry (18%) and then retail sector (11%). What is interesting to note about the hot spots for food waste is the number of times that specific hot spots come up across the food value chain. For example, fruits and vegetables are hot spots in 5 of the 7 areas where food waste occurs. This frequency can be explained by the intimate relationship that fruits and vegetables have with the seven creators of food waste above, which

¹³³ Martin Gooch, et al., “Food Waste in Canada,” George Morris Centre, November 2010, Print, at p. 2.

¹³⁴ Martin Gooch, et al., “Food Waste in Canada,” George Morris Centre, November 2010, Print, at p. 3.

¹³⁵ Martin Gooch, et al., “Food Waste in Canada,” George Morris Centre, November 2010, Print, at p. 4.

¹³⁶ Martin Gooch, et al., “Food Waste in Canada,” George Morris Centre, November 2010, Print, at p. 2.

are all captured below in the reasons why food waste occurs. In other words, fruits and vegetables are more likely to become food waste than other types of food because they are more affected by factors causing food waste.

Uzea *et al* group these factors into the five *root causes* of food waste in Canada. These include:

- Human behaviour;
- Natural breakdown of food – particularly of fresh and unpackaged food;
- Limitations of technology or lack of advanced technology, e.g. equipment, packaging, etc.;
- Perceptions of risk and risk avoidance, among both businesses and consumers; and
- Unintended consequences of regulation.¹³⁷

Table 36: Annual Food Waste in Canada (Original Source: Agri-food@Ivey and Value Chain

How BIG is the problem?						
40% of all food produced or \$27 billion						
Where does food waste occur?						
Field (9%)		Processing & Packaging (18%)	Distribution (3%)	Retail (11%)	Food Service (8%)	Households (51%)
Crop/livestock Post-Harvest	Production					
What are the hot spots for food waste?						
1. Fruits & vegetables 2. Seafood	1. Fruits & vegetables 2. Meat 3. Grain products	1. Grain products 2. Seafood 3. Meat 4. Dairy products 5. Beverages	1. Fruits & vegetables 2. Seafood 3. Meat	1. Fruits & vegetables 2. Seafood 3. Meat 4. Bakery & deli 5. Ready-made food	N.A.	1. Fruits & vegetables 2. Meat & seafood 3. Grain products 4. Dairy products 5. Beverages
Why does food waste occur (root causes)?						
<ul style="list-style-type: none"> • Climate change & weather extremes • Incorrect planting & subsequent crop management • Incorrect harvesting • Market conditions (low price, lack of demand) • Labour shortages • Over-production • Over-feeding • Health management protocols/processes • Lack of connectivity to downstream elements of value chain • Regulatory standards • Food safety scares 	<ul style="list-style-type: none"> • Inadequate sorting • Spillage & degradation • Grading standards for size & quality 	<ul style="list-style-type: none"> • Incoming quality • Process losses • Cold chain deficiencies • Employee behaviour • Poor machine set up • Inaccurate forecasting • Contamination • Trimming & culling • Supply/demand issues • Date codes • Customers' rejections 	<ul style="list-style-type: none"> • Damage • Demand amplification • Rejection of perishable shipments • Poor record keeping allowing some products to exceed shelf life • Inappropriate storage conditions • Incorrect/ineffective packaging 	<ul style="list-style-type: none"> • Inaccurate forecasting • Food safety issues • Increasing market share of ready-made food • Date codes • Fluctuations in delivery from suppliers • Cold chain deficiencies • Rejection on arrival at distribution centres or store or during handling • Increasing merchandising 	<ul style="list-style-type: none"> • Plate composition • Expansive menu options • Over-serving • Unexpected demand fluctuations • Preparation mistakes • Improper handling & storage • Rigid management 	<ul style="list-style-type: none"> • Excess purchases • Infrequent purchases • Date codes • Attitudes towards food • Over-preparation

¹³⁷ Nicoleta Uzea *et al.*, "Developing an Industry Led Approach to Addressing Food Waste in Canada," Provision Coalition, 2013, Print, at p. 14.

How BIG is the problem?						
40% of all food produced or \$27 billion						
		<ul style="list-style-type: none"> Inconsistency in quality of ingredients Food safety issues 		standards <ul style="list-style-type: none"> Product differentiation Market over-saturation 		
Who can change the outcome?						
<ul style="list-style-type: none"> Managers Employees Value chain partners (processors, retailers) Service providers (equipment, genetics) Regulators 	<ul style="list-style-type: none"> Farmers Service providers (storage, equipment) 	<ul style="list-style-type: none"> Managers Employees Value chain partners (retailers, agricultural producers) Service providers (equipment, process engineers) Food banks Waste users 	<ul style="list-style-type: none"> Managers Employees Service providers (equipment, transport, packaging) Value chain partners (farmer, processors/packers, retailers, food service) Food banks 	<ul style="list-style-type: none"> Managers Employees Service providers (packaging, technology) Food banks Waste users 	<ul style="list-style-type: none"> Managers Employees Waste users 	<ul style="list-style-type: none"> Consumer organizations Schools Media Retailers Consumers

Environmental Impact of Food Waste

The economic impact of food waste is extraordinary and the environmental impact is just as concerning. Food production and waste management activities directly affect natural resources, such as energy and water, and this can contaminate the environment in which food is grown. It is estimated that at least half of food grown is discarded before and after it reaches consumers, with approximately one third to half of landfill waste coming from the food sector.¹³⁸ It is well known that recycling, composting and reducing the amount of waste sent to landfills is better for the environment. The healthier the environment, the stronger the food system can be. When landfills are used instead of composting food scraps and organic matter, the matter disposed produces methane (a potent greenhouse gas) as it decomposes, which harms the environment.¹³⁹ This is a problem because methane is a radiative active gas that is very effective at trapping heat in the planet’s atmosphere. This contributes to the greenhouse effect by heating the Earth’s surface to a temperature that is beyond that which it would reach in the absence of such radiation from the planet’s atmosphere.

A study looking at food waste globally reports some astonishing environmental impacts of food waste on the climate, water, land, and biodiversity. Without accounting for greenhouse gas (GHG) emissions from land use change, the carbon footprint of food produced, but not eaten, is estimated to be the third top emitter of carbon dioxide, after the United States and China. Furthermore, the bluewater footprint—that is, the consumption of surface and groundwater

¹³⁸ Asia Pac J Clin Nutr, Waste Management to Improve Food Safety and Security for Health Advancement, 18(4), 2009, Print, at pp. 538-45.
¹³⁹ London, Canada. A Road Map to Maximize Waste Diversion in London: Planning our Destinations to Substantially Reduce Garbage, 2007, Print, at p.11, 36.

resources—is 250km³. Finally, the food produced but not eaten occupies close to 1.4 billion hectares of land; this is approximately 30% of the world’s agricultural land area.¹⁴⁰

Unfortunately, the needs for environmental protection from waste generation are often overlooked, and there is a lack of knowledge about how the environment and health effects are impacted by the ways waste is managed, and this creates both food security and safety challenges.¹⁴¹

Food Waste in Middlesex-London

In Middlesex-London, the London Environmental Network (LEN) serves to create a more organized way of getting environmental related messages to the public, so that significant progress can be made in the environmental issues facing London, Ontario. Currently, LEN has five groups working to promote waste reduction, recycling, and composting in the city. The five groups include EnviroWestern, Goodwill Industries- Ontario Great Lakes, Sustainability at Fanshawe, Sustainability at Western University and Thames Region Ecological Association.

Waste and Recycling

Middlesex-London currently has a garbage and recycling program in place; however, the means by which the programs operate are different amongst the municipalities. The City of London currently operates on a six-day schedule in which curbside garbage and recycling is collected. In the downtown core, garbage is collected twice weekly. The city enforces a limit of four garbage bags per pickup for residential properties and 12 bags per collection for businesses.¹⁴²

Within Middlesex County, Bluewater Recycling Association serves Adelaide-Metcalf, Lucan Biddulph, Middlesex Centre, North Middlesex and Strathroy-Caradoc for their recycling and garbage pick up. Adelaide-Metcalf, Lucan Biddulph, Middlesex Centre and North Middlesex have their garbage and recycling picked up on a weekly basis and are limited to 45 pounds for their waste pickup (there is no noted limit for Lucan Biddulph). Strathroy-Caradoc has their waste picked up weekly, and their recycling picked up biweekly. Like Lucan Biddulph, there is no noted limit on the amount of garbage that can be picked up curbside.¹⁴³

The Village of Newbury currently has their recycling and waste collection services being contracted through BFI Canada. Waste is picked up weekly, with a four bag limit, and recycling is picked up biweekly.¹⁴⁴ Lastly, Southwest Middlesex has a contract with EMTERRA Environmental in which their garbage and recycling is picked up once a week, with a 45-pound

¹⁴⁰ Food and Agriculture Organization of the United Nations, *Food Wastage Footprint Impacts on Natural Resources*, 2013.

¹⁴¹ No author. *Waste Management Resources*, No Date, Web, at <http://www.wrfound.org.uk>

¹⁴² London, Canada, “Information About Garbage Collection,” No Date, Web, at <https://www.london.ca/residents/Garbage-Recycling/Garbage/Pages/Garbage%20FAQs.aspx>

¹⁴³ Bluewater Recycling Association, “Community List Search,” No Date, Web, at <http://bra.org/listindex.html>

¹⁴⁴ Newbury, *Newbury Garbage Disposal Rules and Guidelines*, No Date, Web, at <http://newbury.ca/by-laws.html>.

limit.¹⁴⁵ Waste pick-up through Middlesex-London does not include organic waste pick-up through a green bin program.

Organic Waste

In 2011, 61% of Canadian households, and 75% of Ontario households, participated in some form of composting. In Ontario, 62% of households composted kitchen waste and 82% composted yard waste.¹⁴⁶

Community Harvest

A community initiative that serves to reduce the amount of food that is wasted prior to entering the market. The London Food Bank has developed relationships with many local farmers, and offered them the opportunity to donate fruits and vegetables that have been deemed unsalable. This produce, still nutritious, is then donated to residents in need. In 2012, 100,000 pounds of fresh, local fruit and vegetables were donated through this program. Harvest Mobs are another opportunity to reduce food waste, where volunteers of the London Food Bank visit local farms and harvest surplus produce.

(Source: London Food Bank, "Community Harvest," 2016, <http://www.londonfoodbank.ca/about-us/fresh>)

There are no scheduled curbside collection services for separate organic materials anywhere in Middlesex-London. Bluewater Recycling Association, which serves most of Middlesex County, encourages residents to use a backyard composter or a digester to manage organic waste, noting that managing materials as close to the source as possible is typically a best practice from an economic and environmental perspective.¹⁴⁷ Backyard compost bins are available to residents of Middlesex County at the Middlesex County Improvement Authority.

The City of London participates in backyard composting, rather than curbside collection. Residents can purchase backyard composters through two EnviroDepots, local hardware stores, and garden centres. "Road Map 2.0: The Road to Increased Resource Recovery and Zero Waste for the City of London," indicates that in 2014 and 2015 the City will explore source reduction of food waste and examine the role of community composting. From 2016 to 2019 the plan in terms of composting food waste is to increase home composting opportunities. This report also shows waste audits that suggest there is an approximate 45% (or 26,000 tonnes) of compostable material in the curbside garbage that is currently being collected. A curbside

¹⁴⁵ Southwest Middlesex, "New Recycling & Garbage Collection Schedule," 2014, Web, at http://www.southwestmiddlesex.ca/Public/Page/Files/65_2014_2015_RecyclingAndGarbageCollectionCalendarSWM_11x17%20EMTERRA%20%20final%20copy.pdf.

¹⁴⁶ Statistics Canada, "Composting by Households in Canada," 2013, Web, at <http://www.statcan.gc.ca/pub/16-002-x/2013001/article/11848-eng.htm#a3>.

¹⁴⁷ Bluewater Recycling Association, "Organic Waste," No Date, Web, at <http://bra.org/municipal/adelaidemetcalfe/organic.html>.

Green Bin program would divert approximately 12,000 to 14,500 tonnes (45% to 55% of compostable waste) and increase overall waste diversion by 8% to 9%.¹⁴⁸

While there is no citywide composting program in London, home/backyard composting has played an important role in waste reduction in the city since the mid-1990s. In terms of composters provided to residents, the City of London has sold subsidized home composters to residents. In 1995 to 1999 approximately 53,000 subsidized composters were sold, and since 2007, 250 units are sold per year (creating an approximate total of 1,250 home composters sold).¹⁴⁹ Residents of London who do participate in composting, but do not wish to compost in their backyard, can drop off their organics to the Clarke Road EnviroDepot.¹⁵⁰

The City of London is far behind other Census Metropolitan Areas when it comes to the amount of kitchen waste that they compost. Statistics gathered through the 2011 Households and the Environment Survey shows that out of selected CMA's in Ontario, the number of London households who compost kitchen waste is the second lowest amount at merely 33% of households. Guelph had the highest number of households composting kitchen waste at 79%.¹⁵¹

Table 37: Composting in Selected Census Metropolitan Areas in Ontario (Source: Households and the Environment Survey, 2011)

Census Metropolitan Area	Composted Kitchen and/or Yard Waste (%)	Composted Kitchen Waste (%)	Composted Yard Waste (%)
Ottawa- Gatineau (Ontario part)	76	63	85
Kingston	83	70	83
Oshawa	80	72	86
Toronto	76	71	89
Hamilton	72	68	78
St. Catharines – Niagara	82	69	77
Kitchener – Cambridge –Waterloo	70	54	85
Brantford	65	32	82
Guelph	87	79	93
London	68	33	83
Windsor	77	31	81
Barrie	74	59	76
Greater Sudbury	69	59	76
Thunder Bay	68	35	72

¹⁴⁸ London, Canada, Road Map 2.0 The Road to Increased Resource Recovery and Zero Waste, 2013, Print, at p.31.

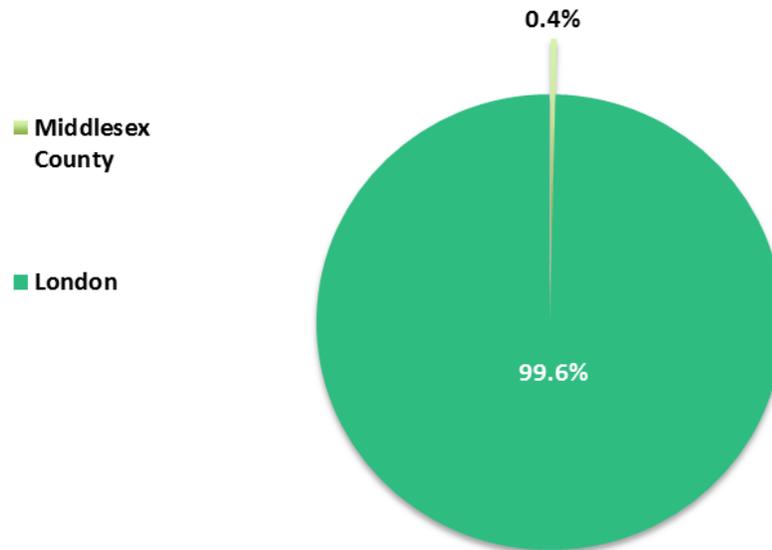
¹⁴⁹ London, Canada, Road Map 2.0 The Road to Increased Resource Recovery and Zero Waste, 2013, Print, at p.32.

¹⁵⁰ London, Canada, Road Map 2.0 The Road to Increased Resource Recovery and Zero Waste, 2013, Print, at p.33

¹⁵¹ Statistics Canada, "Composting by Households in Canada," 2013, Web, at <http://www.statcan.gc.ca/pub/16-002-x/2013001/article/11848-eng.htm#a3>.

Middlesex-London diverts approximately 2% of all of Ontario’s diverted organic waste. Of Middlesex-London’s diverted waste, London makes up almost 100% and Middlesex less than 1%. Despite Middlesex having a population of roughly 20% of the Middlesex-London area, it diverts less than 1% of the total organic waste.¹⁵² It is not clear through Waste Diversion Ontario whether the large difference in percentages is due to population density differences, composting behaviours, or inconsistent reporting methodologies.

Figure 48: Percentage of Organic Waste Diverted (Waste Diversion Ontario Program Data, 2013)



In 2011, in Southwest Middlesex, 25.6% of all waste is diverted; of this 25.6%, 3.64% of residential waste diverted was organic waste (approximately 3.2 kg). London diverts 42% of its residential waste (65,945.23 tonnes/ 169.49 kg). Of all waste, 12.42% is diverted as organic waste (approximately 21.25 kg). Among other large urban centres in Ontario, the average percentage of waste diverted (vs. disposed) is 50%.¹⁵³ While data on the percent of diverted waste and diverted organic waste, as a total of all diverted waste, was not available for the other municipalities in Middlesex County, this data shows that London does not divert nearly as much of its waste as other urban centres in Ontario; therefore, opportunities to increase waste diversion may be in need of implementation.

¹⁵² Waste Diversion Ontario, “Program Data,” 2013, Web, at <http://www.wdo.ca/partners/municipalities/municipal-datacall/>

¹⁵³ Waste Diversion Ontario, “Residential GAP Diversion Rates,” 2011, Web, at <http://www.wdo.ca/partners/municipalities/municipal-datacall/>

The Southern Ontario Food Collaborative encourages families to eat well and reduce food waste by bringing together government of all levels, non-government organizations, food producers, food processors/manufacturers, distributors and retailers and restaurants/ food services to take a food systems approach. Leadership, working together, and having multiple strategies with a shared, educational message inform the collaborative's strategy. The group was established in early 2015 and since has developed a steering committee, completed a strategic plan, an action plan, and currently has three working groups established.

(Source: Golden Horseshoe Food and Farming Alliance, January 30, 2015, <http://www.foodandfarming.ca/southern-ontario-food-collaborative-battles-food-waste-in-york-region>)

7.2 Gaps in Knowledge

In regards to organic waste diversion in Middlesex-London there is some information that is still needed to get a clearer picture on this topic. Data on the percent of diverted organic waste as a total of all diverted waste was not available for most of the municipalities in Middlesex County (with the exception of Southwest Middlesex). Without this data, we do not know the volume of diverted organic waste within each of the municipalities in Middlesex County, and therefore, cannot get a clear picture of total organic waste diverted in Middlesex-London. There is also no current data available that provides information on the composting behaviours of Middlesex-London residents, more specifically why some people compost and others do not.

There is also a lack of information on food waste that occurs outside of the home. Data regarding the amount of food wasted by producers, restaurants and supermarkets, fast food chains, processors, distributors etc. was not discussed in this section. It's important to reiterate that food is wasted across many areas of the food system and therefore, the issue of food waste is much larger than the household food waste data captures.

7.3 Strengths and Assets

While Middlesex-London does not provide curbside pick-up for organic materials, residents are engaging in their own efforts to reduce waste. For example, some residents still continue, despite the lack of curbside pick-up, to compost organic materials through their own means in their backyards or EnviroDepots (available to London residents). Some residents also engage in the practice of permaculture and use worms to compost their organic waste. Food waste can be minimized to a greater degree through having the people currently engaged in composting, encouraging, promoting, and demonstrating composting to their friends and family.

The London Food Bank's Community Harvest Program also works to reduce waste through partnering with farmers to donate their unsalable, yet nutritious, food. Middlesex-London could increase the amount of perishable and nutritious food available to those that cannot afford it by expanding this program to other food banks across the area. By leveraging the existing relationships with farmers, people in need will benefit, as the free food they receive will be

more nutritious than the items they would typically receive. This could increase the prevalence of healthy eating behaviours amongst residents.

Also, the London Environment Network has five groups that are working to promote waste reduction, recycling and composting in London. Community residents and staff noted that with these efforts, it appears there is a growing interest in reducing the amount of food that goes to waste in Middlesex-London.

Table 38 lists all of the strengths and assets identified through the community food assessment process that pertain to this section of the report (please see 1.2 for Asset Legend).

Table 38: Strengths and Assets within Food Waste Management

FOOD WASTE MANAGEMENT						
						
91. Community and residential composting						
92. Use of residential and backyard composting by residents						
						
93. Growing interest in reducing the amount of food wasted in Middlesex-London						
						
94. London Environmental Network						
95. London Food Bank Community Harvest Program						

7.4 Areas to Cultivate

Areas to cultivate exist within reducing the amount of waste produced in Middlesex-London’s food system. There are not enough opportunities aside from curbside garbage and recycling pick-up to reduce the amount of waste that is produced. While backyard composting is available, many people who do not have a backyard (common in urban areas) and/or transportation to an EnviroDepot do not have an opportunity available to them to compost organic waste. Additionally, there is no food waste program on the same scale as Second Harvest that collects donated and surplus food and gives it to those in need, rather than it going to waste. Middlesex-London residents and staff articulated that there is too much food left in and/or on farmers’ fields. Finally, Middlesex-London lacks a green bin program for composting and this was strongly voiced by community members in the survey.

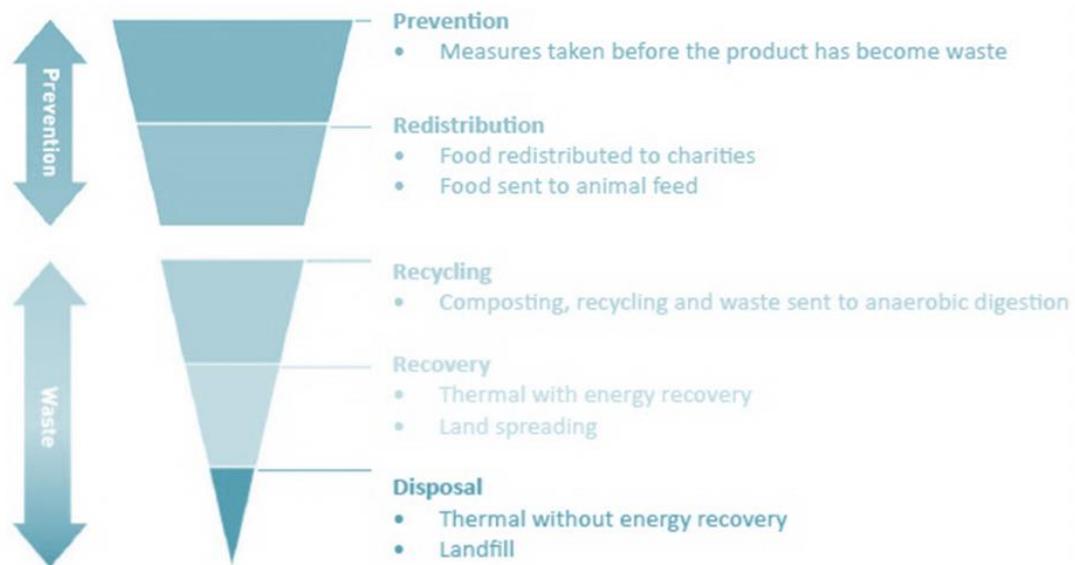
Second Harvest is the largest food rescue program in Canada. Second Harvest picks up donated, surplus food, which would otherwise go to waste, and delivers the food to community agencies in Toronto. The charity has been in operation since 1985 and currently delivers rescued food to over 220 social service agencies. They rescue and deliver enough food to provide over 22,000 meals a day!

(Source: Second Harvest, 2015, <http://www.secondharvest.ca/about>)

7.5 Opportunities for Change

The opportunities for food waste change in Middlesex-London exist on a hierarchy of waste recovery and management action. Two visualizations of this hierarchy—prepared by the UK Food Chain Centre (Figure 49) and the US Environmental Protection Agency (Figure 50) respectively—can assist the community in exploring which types of action and what it looks like should be prioritized for the area.

Figure 49: Waste Management Hierarchy (Original Source: Waste Resources Action Programme, 2013)¹⁵⁴



In the community survey, residents were asked about their perspective on waste management. When asked whether they thought it was important that people in Middlesex-London recycle and compost food waste, 77% of respondents strongly agreed with the statement, and an additional 11% somewhat agreed (total of 88% respondents who agreed with the statement). The responses show that an overwhelming number of residents feel that recycling and composting food waste are important activities for the community to participate in.

¹⁵⁴ Sourced from: Nicoleta Uzea et al., “Developing an Industry Led Approach to Addressing Food Waste in Canada,” Provision Coalition, 2013.

“It is completely unacceptable that we do not have a system in place to properly dispose of compostable goods.”
 – Survey respondent

Figure 50: Waste Recovery Hierarchy (Original Source: US Environmental Protection Agency, as cited in Business for Social Responsibility, 2012)¹⁵⁵

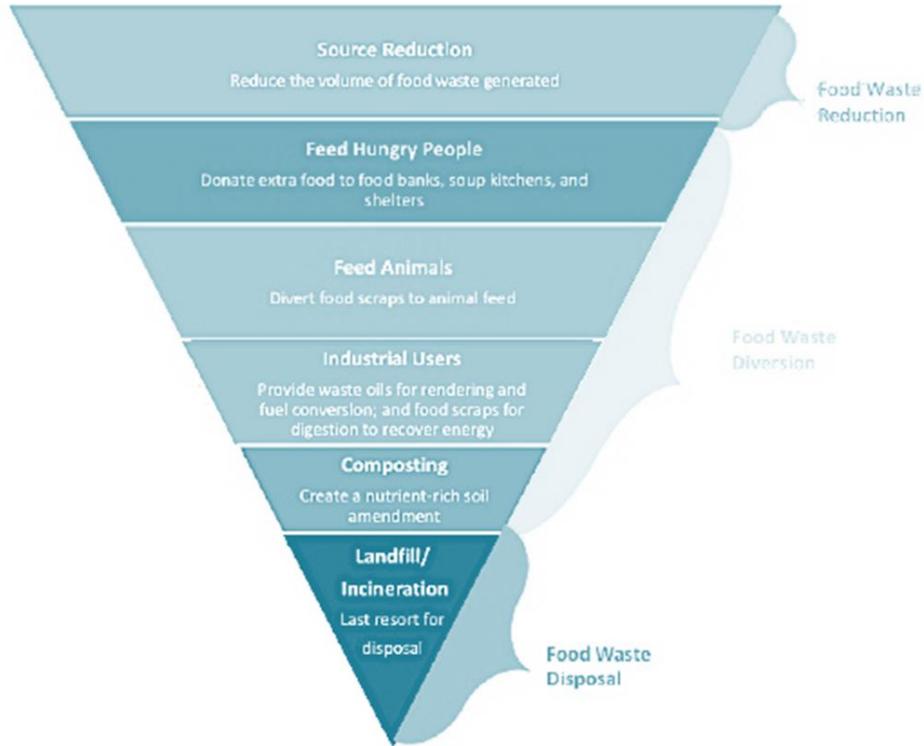
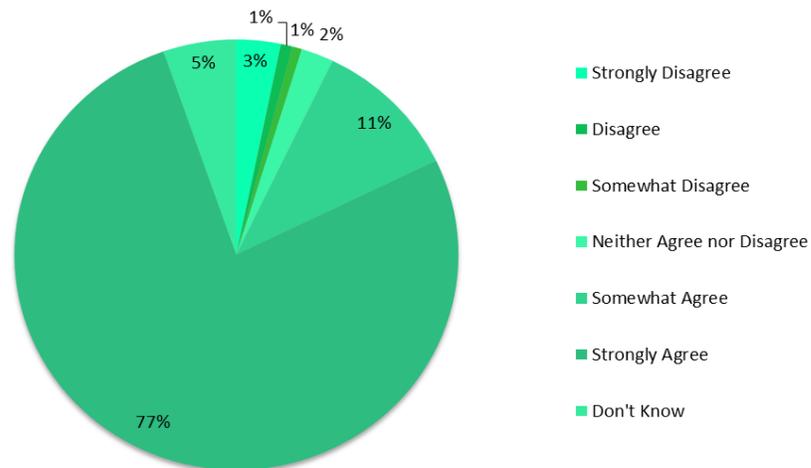


Figure 51: It is Important for People in Middlesex-London Recycle and Compost Food Waste



¹⁵⁵ Sourced from: Nicoleta Uzea et al., “Developing an Industry Led Approach to Addressing Food Waste in Canada,” Provision Coalition, 2013.

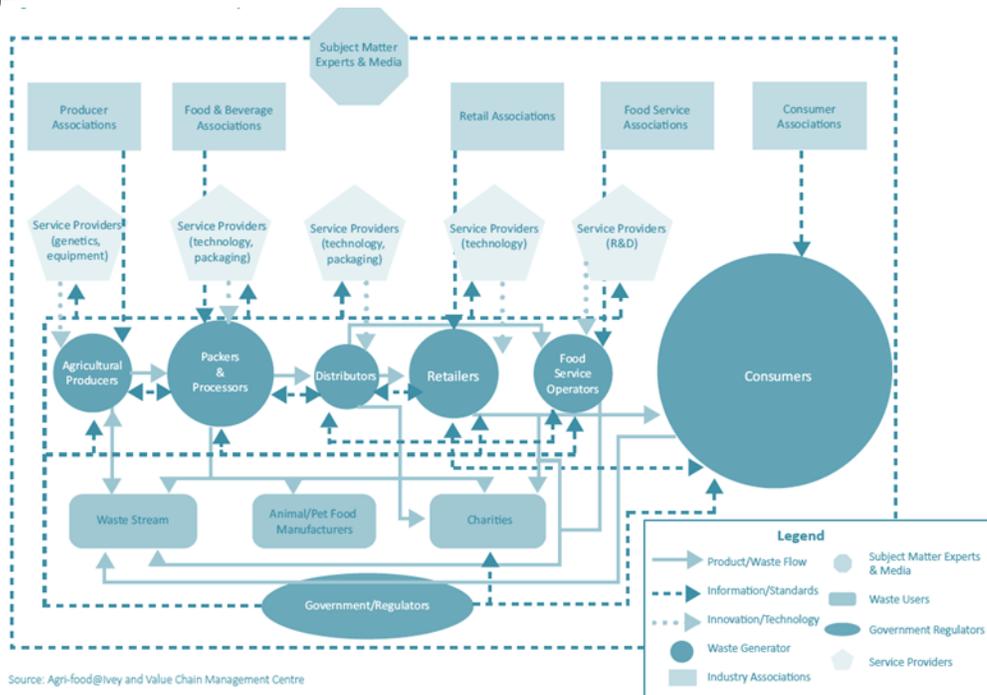
Through further consultation, Middlesex-London residents identified ways in which food waste management within their local food system could be strengthened. Many felt it was important that before any action is taken to reduce the amount of waste, that a clear indication of how much garbage (that could be diverted) was actually going to waste. This could happen through a quantification exercise using appropriate software. A local food hub was also identified as an opportunity to reduce food waste (e.g. through a central location to drop off organic waste, or as an opportunity to use composted material for farming). Additionally, the need to develop and implement a curbside composting program within London was mentioned countless times throughout the Community Food Assessment process. If this opportunity was not sought, it was also recommended that a compost awareness program be implemented to educate people on what can be composted and alternative ways to compost besides curbside pick-up (e.g. backyard composting or Clare Road EnviroDepot).

Value Chain Approach

The negative externalities associated with food waste are so large that they require a collective approach that has stakeholders collaborating towards greater economic, environmental, and social impact. The importance of working towards greater collective impact is underlined by the fact that food waste production and management involve so many unique stakeholders, who are not only responsible for food waste but also capable of responding to it. The Agri-Food@Ivey and Value Chain Management Centre have developed a food waste stakeholder map (Figure 52) that clearly identifies the causal relationships between the diversity of food system stakeholders across the food value chain and how this interrelates to food waste. The cyclical and self-production and management of food waste from within the food system that is captured in the stakeholder map affirms that a value chain approach to food waste is the only way to address this complex issue. By understanding and planning food waste management as a collective activity, the community will be able to maximize individual stakeholder efforts and create impacts that have a domino effect and accumulate in size.¹⁵⁶

¹⁵⁶ Nicoleta Uzea *et al.*, "Developing an Industry Led Approach to Addressing Food Waste in Canada," Provision Coalition, 2013, Print, at p. 14.

Figure 52: Food Waste Stakeholder Map (Original Source: Agri-food@Ivey and Value Chain Management Centre)¹⁵⁷



Household Level Opportunities

There are many other ways by which food waste can be minimized as well as at the household level. Researchers have studied household food waste behaviours, particularly what impacts the amount of waste generated, and have used this information to suggest opportunities that could help to minimize the amount of food that is wasted. For example, a study based in Europe, an area of the world where food waste is a much more widely studied topic than in Canada, looked at households’ behaviours (shopping, eating, and food preparation habits) and its influence on the generation of food waste. Through studying the behaviours of consumers, researchers were able to identify specific activities that would minimize the amount of food waste by those individuals. It was identified that the most often the food that is thrown away are fruit, vegetables, bread and cheese and were typically wasted (40% of the time) because the food was “out of date,” “in fridge too long,” “smelt/tasted bad,” or “mouldy.”¹⁵⁸

Initiatives in which people cook together as a group would help to decrease the amount of food that is wasted as people who cook solely for themselves (one person households), generate the most food waste. Communities with small shops and local markets and people growing their own food would also decrease the amount of food that is thrown away, as people who shop exclusively at large supermarkets generate the greatest amount of food waste.

¹⁵⁷ Nicoleta Uzea *et al.*, “Developing an Industry Led Approach to Addressing Food Waste in Canada,” Provision Coalition, 2013, Print, at p. 16.

¹⁵⁸ J. Jorissen, C. Priefer and K. Brautigam, “Food Waste Generation at Household Level: Results of a Survey Among Employees of Two European Research Centres in Italy and Germany,” *Sustainability*, 7, 2015.

Additionally, food literacy programming can also help to reduce food waste. Research shows that using a shopping list, meal planning, reuse of leftovers, and good time management all helped to reduce the amount of food that was wasted. The food preferences of children and teenagers also generates food waste, so a program such as Growing Chefs! where children are eager to try new food because they participated in the creation of them, may be useful in minimizing the amount of food that is wasted.¹⁵⁹ (Please see Section 10.1 for more information on Growing Chefs!).

The most common drivers for food waste mentioned in the study were oversized packaging (mostly for small households), poor quality of purchased groceries, cooking too much due to lack of experience, likes and dislikes of children, and lack of time for family management due to work overload; therefore, initiatives that target these drivers of food waste may be useful in Middlesex-London.¹⁶⁰

Government Supported Initiatives

Industry led voluntary initiatives to reduce food waste that have been kick-started and strengthened by the support of local government have proven that legislation is not always the best means towards better food waste management.¹⁶¹ In fact, industry can be incentivized by the internal cost-savings associated with reducing their waste. In a government-supported initiative in the UK that saw the Institute of Grocery Distribution and Cranfield University collaborating, it was found that “it is common for businesses to be able to reduce costs by 20% and increase sales by 10% through making improvements in the way their chains were managed.”¹⁶²

Allowing Industry to Lead the Way

Begun well ahead of the UK recession, with a target of generating £1.1B (~ CAD\$1.78B) in financial benefits for industry and consumers by 2011 (WRAP, 2010b), the WRAP initiative began in earnest with the signing of the Courtland Commitment in 2005, an initiative to reduce packaging and waste through industry collaboration. With 12 initial signatories, by the end of ‘Phase One’ in March 2010, the Courtland Commitment had 42 signatories. Together the signatories represent 92% of the grocery retail sales and many of the world’s major brands. The agreement has resulted in a 670,000 tonne reduction in food waste and a 520,000 tonne reduction in packaging between 2005 and 2009. This was in spite of a 2% growth in the grocery sector each year.

Source: Martin Gooch, et al., “Food Waste in Canada,” George Morris Centre, November 2010, at p. 8.

¹⁵⁹ J. Jorissen, C. Priefer and K. Brautigam, “Food Waste Generation at Household Level: Results of a Survey Among Employees of Two European Research Centres in Italy and Germany,” *Sustainability*, 7, 2015.

¹⁶⁰ J. Jorissen, C. Priefer and K. Brautigam, “Food Waste Generation at Household Level: Results of a Survey Among Employees of Two European Research Centres in Italy and Germany,” *Sustainability*, 7, 2015.

¹⁶¹ Martin Gooch, et al., “Food Waste in Canada,” George Morris Centre, November 2010, Print, at p. 8.

¹⁶² Martin Gooch, et al., “Food Waste in Canada,” George Morris Centre, November 2010, Print, at p. 8.

This business case has proven to be a successful tool for driving industry-led change by the British Government's Waste Resources Action Programme (WRAP), mentioned above. WRAP UK is registered charity that works with industry, individuals and communities accelerate the transition towards a circular resource-efficient economy that re-invents how products are designed, produced and sold, re-thinks how these products are used and consumers, and re-defines their life-cycle through re-use and recycling.¹⁶³ This example and other best practices should be considered when planning future action to address the food waste problem and lack of waste management activity in Middlesex-London.

Innovative Policy Change

The regulatory environment that surrounds the food system ensures that food produced is safe for consumption and meets all the relevant marketplace standards; however, policy and legislation at the federal and provincial levels can also put pressure on stakeholders to remain in their industry or commodity silos, and this can have negative effects, including the production of food waste. For example, risk management programs and marketing regulations can limit how stakeholders communicate across the food value chain, all the way from farmer to consumer.¹⁶⁴ This can hinder the development of more progressive approaches to waste management, such as the value chain approach described above. Additionally, weak waste management regulation at both the provincial and municipal levels can have the negative impact of inadvertently encouraging both industry and the consumer to waste food or choose the waste recovery, reduction or management path of least resistance. This could include the dumping of organic waste in lieu of developing long-term higher technology solutions, such as introducing anaerobic digesters to breakdown biodegradable material and create energy that can be harvested.¹⁶⁵ Innovative policy change at the municipal level, which supports communication across the food value chain and a long-term vision for collective waste management in the area, can also help to create greater collective impact.

¹⁶³ WRAP UK, "Our Vision," 2016, Web, at <http://www.wrap.org.uk/content/about-us>.

¹⁶⁴ Martin Gooch, et al., "Food Waste in Canada," George Morris Centre, November 2010, Print, at p. 7.

¹⁶⁵ Martin Gooch, et al., "Food Waste in Canada," George Morris Centre, November 2010, Print, at p. 7.

7.0 Food Waste Management

250

composters sold per year in London

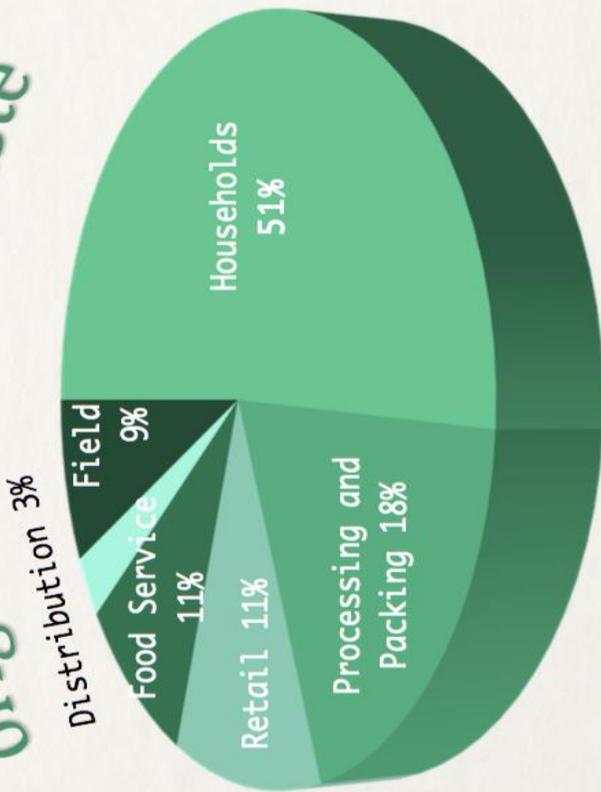
33%

of London households compost

26,000

tonnes of compostable material are not composted

origins of food waste

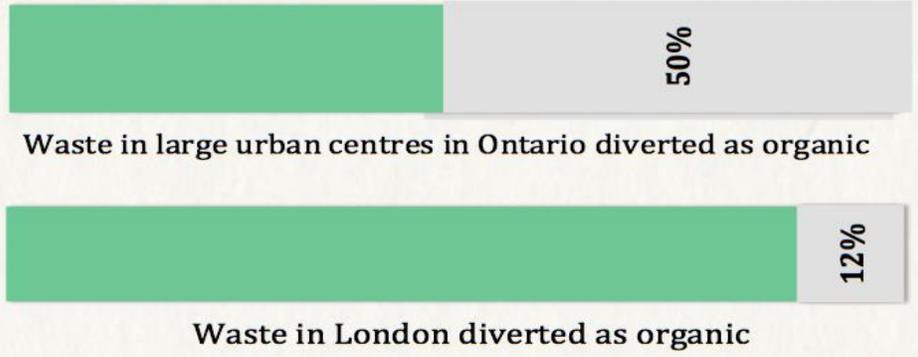


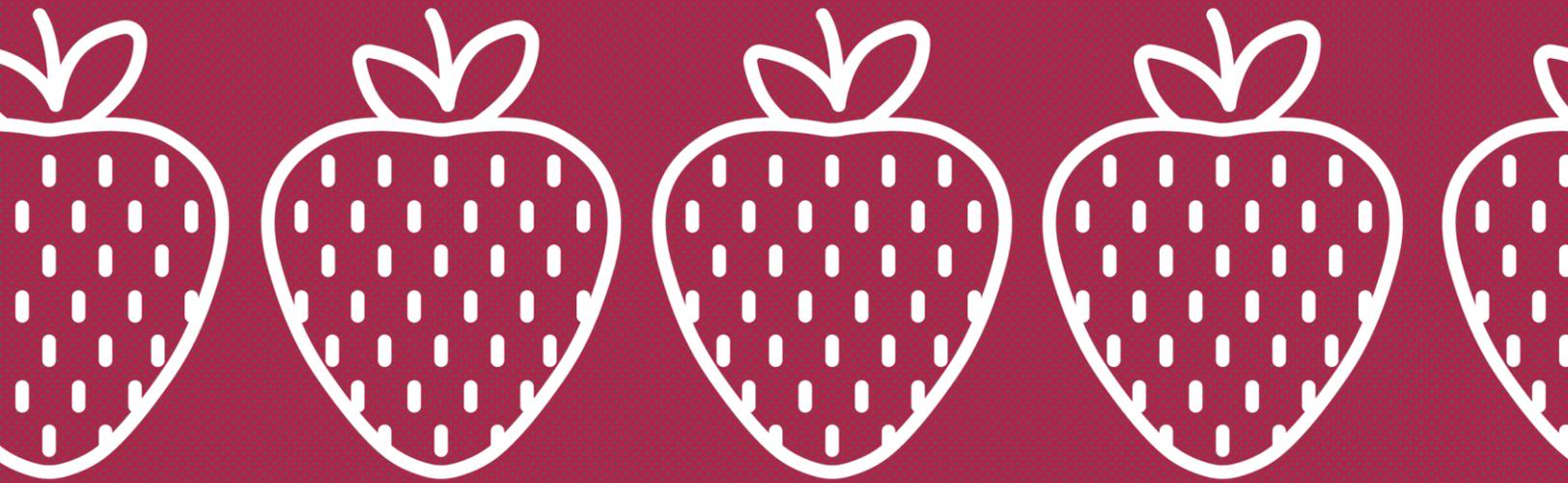
100,000 lbs

of fresh, local fruit and vegetables donated



WHY do some residents COMPOST? ???





8.0 POLICY AND ADVOCACY

8.0 POLICY AND ADVOCACY

8.1 Findings

This Community Food Assessment is taking place at an opportune time for local food system support and food policy development in Canada. The *Local Food Act* serves to support the development of strong and sustainable local food systems in Ontario.¹⁶⁶ Additionally, Prime Minister Justin Trudeau has recently stated that he expects the Minister of Agriculture and Agri-Food to develop a national food policy.¹⁶⁷

The following section of the Community Food Assessment serves to identify agricultural and food related policies within Middlesex-London. The objectives of this section are:

- To provide an overview of the food policies that currently exist in the local area;
- To document policies which support the development of a local, sustainable food system;
- To identify local food policies that have attained council support (i.e. policy wins); and
- To give an overview of grassroots advocacy efforts in the area related to food security and food sovereignty.

This section begins by examining policy at the County level, followed by each of the municipalities, and the City of London. Advocacy and/or collaborative efforts within the Middlesex-London food system are then highlighted.

County of Middlesex

The importance of the agricultural sector and the County's support for it, are clearly articulated in Middlesex County's Official Plan. The plan states,

Agriculture is the cornerstone of the County's economy and culture. A significant portion of the County's land base is farmed and the diversity of agricultural products is amongst the best in Ontario. Urbanization has however, created conflicts in the agricultural area and continues to encroach on prime agricultural land. The policies of this Plan are intended to affirm that agriculture is a predominant activity in the County. Non-agricultural activities will be closely scrutinized and directed to Settlement Areas unless the activity is agriculturally related and a location in proximity to agriculture is necessary (2.3.9).

The County has land designated for agricultural use and any non-agriculture related development in these areas is restricted to the following conditions: the non-agriculture land use must not “detract or adversely affect present and/or future agricultural operations; interfere with the viability of farm units; or detract from the character of the agricultural

¹⁶⁶ Government of Ontario, *Local Food Act, 2013*, S.O 2013 Chapter 7, 2013, Web, at <http://www.ontario.ca/laws/statute/13l07>).

¹⁶⁷ Rt. Hon. Justin Trudeau, *Minister of Agriculture and Agri-Food Mandate Letter*, November 2015, Web, at <http://pm.gc.ca/eng/minister-agriculture-and-agri-food-mandate-letter>).

community. This policy helps to preserve farmland and protect the local food system (2.2.2.2).¹⁶⁸ Further attempts to preserve farmland show through the restriction on aggregate extraction (2.2.3.2).¹⁶⁹ This is an important policy as it seeks to preserve the agriculture land so that it may continue to be utilized for agriculture purposes after extraction.

The County of Middlesex's Official Plan does not appear to support small-scale farming of less than 40 hectares. In turn, this prevents new farmers from learning how to farm on incubator farms, which would use small parcels of land to help train and mentor them over several years. General policies related to designated agricultural areas state: "In the Agricultural Areas, farm parcels shall remain sufficiently large to ensure flexibility and the economic viability of the farm operation. The creation of parcels of land for agriculture of less than 40 hectares shall generally not be permitted."¹⁷⁰ Generally this agricultural policy means that farms in the area must be 100 acres or more, which excludes farms smaller in size. At one time, small, family farms were the norm and the generally accepted size of these farms was smaller than 100 acres.

Southwest Middlesex

The Official Plan of Southwest Middlesex dictates policies on agriculture land use. General planning directions highlight the preservation of prime agricultural land, recognize the importance of agriculture to the local economy, and protect prime agricultural areas and operations (2.2.2; 2.2.3; 2.2.4).¹⁷¹

More specifically the policies related to agriculture designation "are intended to ensure the continuation of farming as the predominant use of the rural area of Southwest Middlesex."¹⁷² Furthermore, land use for purposes other than farming will only be permitted under certain and limited circumstances. If allowed, the land use will be strictly controlled in scale, location, and type so that it does not interfere with farming or result in the loss of prime agricultural land.¹⁷³

Agriculture areas primary use of land should be "for the cultivation of land, the raising of livestock and the growing of trees. A full range of agricultural activity shall be permitted including cash crops, livestock, market gardening, tobacco farming, specialty crops, aquaculture, horticulture and forestry, and buildings and structures associated therewith (5.4.1.1. Primary Uses)."¹⁷⁴ Land designated agriculture may be used for other purposes "such other uses primarily serve or are otherwise directly related to, or complement, agricultural activity. Uses which would not be detrimental, offensive or conflict with agricultural activities

¹⁶⁸ County of Middlesex Official Plan, 2006, Print, at p.2-7, 2.8.

¹⁶⁹ Aggregate extraction refers to the action of taking out something, usually requiring effort or force. Aggregates typically refer to sand, gravel, clay and bedrock (Source: County of Middlesex Official Plan, 2006, Print, at p.2-9).

¹⁷⁰ County of Middlesex Official Plan, 2006, Print, at p.3-5.

¹⁷¹ Southwest Middlesex Official Plan, 2011, Print, at p.2-1.

¹⁷² Southwest Middlesex Official Plan, 2011, Print, at p. 5-2.

¹⁷³ Southwest Middlesex Official Plan, 2011, Print, at p. 5-2, 5-3.

¹⁷⁴ Southwest Middlesex Official Plan, 2011, Print, at p. 5-2, 5-3.

and which are necessarily located in the rural area due to their nature or their potential to create conflicts if located within settlement areas may also be permitted (5.4.1.2).¹⁷⁵ These policies illustrate that Southwest Middlesex supports a wide range of agricultural production methods.

The Official Plan states that areas designated “Agricultural” shall be protected for farming (5.4.1.3).¹⁷⁶ The agricultural economy is supported through a right-to-farm (5.4.1.4),¹⁷⁷ secondary farm occupations (5.4.1.9.),¹⁷⁸ and second dwelling and seasonal living quarters on farms (5.4.1.10).¹⁷⁹

Zoning By-Laws as they pertain to the food system, dictate that mobile food outlets (self-propelled motor vehicle or a unit towed by a motor vehicle from which food and refreshments are made available to the general public for a fee) are permitted in highway commercial and core commercial zones (2.113).¹⁸⁰

Strathroy-Caradoc

Included in the agricultural goals and objectives in Strathroy-Caradoc’s Official Plan is to preserve and protect agricultural land, maintain and promote agriculture as a major component of the economy and to protect agricultural operations from the unwarranted intrusion of non-agricultural activities (2.2.1).¹⁸¹ In rural areas, agriculture is to be maintained as the predominant use of land and non-agriculture use is located to settlement areas whenever feasible and possible. The municipality allows a full range of agricultural activity including general farming, livestock farming, cash crop farming, market gardening, tobacco farming, speciality crops, horticulture and forestry (5.4.1.1).¹⁸²

Policies lend support to larger scale farms as the splitting of prime agriculture land into smaller parcels is generally discouraged (5.4.1.6).¹⁸³ When considering this idea, Middlesex County’s Official Plan restrictions on splitting land should be regarded by Strathroy-Caradoc (which prevents farm parcels of less than 40 hectares).

¹⁷⁵ Southwest Middlesex Official Plan, 2011, Print, at p.5-3.

¹⁷⁶ Southwest Middlesex Official Plan, 2011, Print, at p. 5-3.

¹⁷⁷ Southwest Middlesex Official Plan, 2011, Print, at p. 5-3.

¹⁷⁸ Southwest Middlesex Official Plan, 2011, Print, at p.5-6.

¹⁷⁹ Southwest Middlesex Official Plan, 2011, Print, at p.5-6.

¹⁸⁰ Southwest Middlesex Planning Section 3 through 10, No Date, Web, at

http://www.southwestmiddlesex.ca/Public/Page/Files/59_SWM%20ZBL%202011_065%20aFULL%20BY-LAW_Part1_Sections%203%20to%2010.pdf.

¹⁸¹ Strathroy-Caradoc Official Plan, 2008, Print, at p.2-2.

¹⁸² Strathroy-Caradoc Official Plan, 2008, Print, at p.5-2.

¹⁸³ Strathroy-Caradoc Official Plan, 2008, Print, at p.5-3.

Strathroy-Caradoc's Official Plan supports the use of farm stands and market gardens by residents as the only buildings and structures permitted in the front yard are for agriculture use (4.2.1.c)¹⁸⁴ (4.25).¹⁸⁵

Strathroy-Caradoc regulates the size of greenhouses, in addition to the size of farms. Greenhouses must be on a lot of at least two hectares, cover 40% of the area, not have a gross floor area greater than 500m² (unless a site plan agreement has been entered into with the Municipality), and no manure, compost or equipment can be stored within 30 metres of the road allowance, watercourse, or a residential use on an adjacent lot (4.11).¹⁸⁶

For farmers who do not have extra help on their farms, it is difficult to operate a fruit and vegetable stand in Strathroy-Caradoc as by-laws state that not more than one person, who is not a resident of the farm lot, can operate the fruit and vegetable stand (Section 18.4(1)).¹⁸⁷ If you are a larger scale farmer, and have people working the farm for you, you could operate the farm stand with one other person - a much more feasible model than having one person man the stand.

Thames Centre

The Official Plan supports the agricultural sector by protecting agricultural land, recognizing the value the industry has for the municipality, and sustaining agricultural operations (3.1.1; 3.1.2).¹⁸⁸

This municipality appears to support small-scale farming in that existing undersized farm parcels are encouraged to remain in production (3.1.2 (3)).¹⁸⁹ Thames Centre also supports sustainable agricultural practices as one of the goals of the agricultural and green space policies is to ensure a suitable agricultural land base is preserved in order for those engaged in agricultural operations to continue to do so (3.1.2(4)).¹⁹⁰

Thames Centre is making steps towards a sustainable food system by creating policies that aim to preserve the soil in the area. Soil preservation occurs in three ways: all development has to incorporate measures to reduce or mitigate soil erosion and conserve topsoil, peat extraction cannot occur on any land within the "green-space system," and no peat or topsoil extraction can occur within the "agricultural" designation without an Environmental Impact Study being completed (2.21).¹⁹¹

¹⁸⁴ Municipality of Strathroy-Caradoc, *Zoning By-Law No. 43-08*, 2008.

¹⁸⁵ Municipality of Strathroy-Caradoc, *Zoning By-Law No. 43-08*, 2008.

¹⁸⁶ Municipality of Strathroy-Caradoc, *Zoning By-Law No. 43-08*, 2008.

¹⁸⁷ Municipality of Strathroy-Caradoc, *Zoning By-Law No. 43-08*, 2008.

¹⁸⁸ Thames Centre Official Plan, 2004, Print, at p.42.

¹⁸⁹ Thames Centre Official Plan, 2004, Print, at p.42.

¹⁹⁰ Thames Centre Official Plan, 2004, Print, at p.42.

¹⁹¹ Thames Centre Official Plan, 2004, Print, at p.29.

In the general provisions of the Comprehensive Zoning By-law, the establishment of a farm vacation business is permitted within a single detached dwelling, provided that the business operator lives in the dwelling used for this business, and specific requirements are met in regards to the size and number of guest rooms related to the business. This is positive for farmers in both general and restricted agriculture zones who are seeking to diversify their revenue stream by utilizing their existing asset. It allows them to promote their farm operation, direct market their agricultural production and any value-added products they make, as well as engage in agri-food tourism. Farm vacation businesses also present an opportunity for Middlesex-London residents and visitors to experience where their food comes from and who is responsible for producing it.

Source: Township of Adelaide Metcalfe, *Comprehensive Zoning By-law*, By-Law No. 34-2007, December 3, 2007.

Adelaide Metcalfe

Adelaide Metcalfe's Official Plan (AMOP)¹⁹² and Comprehensive Zoning By-law¹⁹³ regulate the use of land in the municipality. The AMOP serves to establish policies that both preserve and protect agricultural land while limiting non-agricultural uses of this land. According to the AMOP, "the primary use of land within the areas designated agricultural areas...shall be farming which includes the use of lands, buildings and structures for the growing of crops, including nursery and horticulture crops, raising of livestock, poultry and other animals, aquaculture and agroforestry."¹⁹⁴ There are only a few special policy areas (s. 3.1.10) that allow for the use of agricultural land for non-agricultural purposes, including restaurants, convenience stores, motels, gas bars, and industrial activity.¹⁹⁵

Under the AMOP's comprehensive planning policies, agriculture is not only recognized as the "major economic base of the municipality" but also as having the "potential to have negative effects on the natural environment."¹⁹⁶ For this reason, the township states that it "shall strongly encourage use of environmentally sound farm management practices."¹⁹⁷ However, it also states that it "will discourage the further fragmentation of existing farm parcels and will encourage efforts to consolidate smaller farm units into larger, more viable farm units."¹⁹⁸ The specific considerations related to this objective are detailed in the agricultural consent policies (s. 3.1.9). Considerations here include the agricultural capability of the land, the type of proposed agricultural activity, and the size of severed and retained parcels of land, to name a few.¹⁹⁹

¹⁹² Township of Adelaide Metcalfe, *Official Plan*, Consolidated Version, April 26, 2011.

¹⁹³ Township of Adelaide Metcalfe, *Comprehensive Zoning By-law*, By-Law No. 34-2007, December 3, 2007.

¹⁹⁴ Township of Adelaide Metcalfe, *Official Plan*, Consolidated Version, April 26, 2011, Print, at p. 19.

¹⁹⁵ Township of Adelaide Metcalfe, *Official Plan*, Consolidated Version, April 26, 2011, Print, at p. 22.

¹⁹⁶ Township of Adelaide Metcalfe, *Official Plan*, Consolidated Version, April 26, 2011, Print, at p. 4.

¹⁹⁷ Township of Adelaide Metcalfe, *Official Plan*, Consolidated Version, April 26, 2011, Print, at p. 4.

¹⁹⁸ Township of Adelaide Metcalfe, *Official Plan*, Consolidated Version, April 26, 2011, Print, at p. 4.

¹⁹⁹ Township of Adelaide Metcalfe, *Official Plan*, Consolidated Version, April 26, 2011, Print, at p. 21.

The AMOP is supported by the Comprehensive Zoning By-law, which divides land into specific zones with permitted uses. There are four zones that relate to the use of land for agricultural purposes: general agriculture zones; restricted agriculture zones; limited agriculture zones; and institutional zones. The general agriculture and restricted agriculture zones share many of the same conditions; most notably, the minimum lot size in both zones is 40 hectares. In addition to agriculture, both of these zones also permit the use of land for the following purposes: accessory dwelling unit within a single detached dwelling; accessory use; bed and breakfast establishment; conservation; equestrian training facility; farm vacation business; forestry; and home business.²⁰⁰ The only use of land that is permitted in a general agriculture zone but not in a restricted agriculture zone is a farm business, which is “limited to welding, seed dealing, small machinery repair, cabinet making, furniture making or repair, carpentry, the sale and service of equestrian equipment and a tradesperson or contractor’s establishment.”²⁰¹

Limited agriculture zones; however, differ quite significantly from the other zones when it comes to the minimum size of plots and the permitted uses of land. Lots in this zone can be as small as 1000 sq/m and, in addition to agriculture, the following uses are permitted: accessory use; bed and breakfast establishment; dog kennel; forestry use; home business; and single detached dwelling.²⁰² Finally, institutional zones, which have minimum lot areas of 0.4 hectares, permit the use of the following: assembly hall; cemetery; day care facility; government office; home for the aged; outdoor storage; place of worship; public works and utilities; residential care facility; as well as public and private schools.²⁰³ It is important to note that agriculture is not one of the permitted uses of land in this zone.

Lucan Biddulph

According to the first page of the Lucan Biddulph Official Plan (LBOP): “*Agriculture is arguably the economic mainstay and defining characteristic of the Township of Lucan Biddulph.*”²⁰⁴ As such, one of the main assumptions on which the LBOP is based is as follows:

Agriculture will continue to be the predominant land use and the economic mainstay of the Township given stable or improved market conditions for agricultural products and a strong commitment to a land use planning approach which is supportive of farming and which strictly controls urbanization of the rural area.²⁰⁵

²⁰⁰ Township of Adelaide Metcalfe, *Comprehensive Zoning By-law*, By-Law No. 34-2007, December 3, 2007, Print, at p. 6-1.

²⁰¹ Township of Adelaide Metcalfe, *Comprehensive Zoning By-law*, By-Law No. 34-2007, December 3, 2007, Print, at pp. 5-3.

²⁰² Township of Adelaide Metcalfe, *Comprehensive Zoning By-law*, By-Law No. 34-2007, December 3, 2007, Print, at pp. 8-1.

²⁰³ Township of Adelaide Metcalfe, *Comprehensive Zoning By-law*, By-Law No. 34-2007, December 3, 2007, Print, at pp. 20-1.

²⁰⁴ Township of Lucan Biddulph, *Official Plan*, Consolidated Version, January 31, 2014, Print, at p. 1.

²⁰⁵ Township of Lucan Biddulph, *Official Plan*, Consolidated Version, January 31, 2014, Print, at p. 3.

“While the ‘backbone’ of the farming community continues to be the small farming operation, large corporation farms are becoming more prevalent and appear to be the growing trend.... *Cash crops and livestock farming are the dominant farming types, however, there is a growing trend towards both large cash crop operations and large intensive livestock operations. The Municipality is increasingly concerned about the impact of these large livestock operations and particularly the generation of large volumes of liquid manure.*

(Source: Township of Lucan Biddulph, *Official Plan*, Consolidated Version, January 31, 2014, at pp. 30-32).

This assumption underpins a number of the LBOP’s overall goals and objectives, especially as they relate to preserving and protecting both agricultural land and rural areas from being developed for non-agricultural purposes (s. 1.2 a, c, d, e, and f).²⁰⁶ For example, the LBOP seeks to direct population growth towards both Lucan and Granton, so that rural area population growth is limited (s. 3.1). This will allow for the primary use of land in rural areas to continue to be for agricultural use—including “livestock farming, cash crop farming, specialty farming, mixed farming, horticulture, forestry and general farming”—and agriculturally-related commercial and industrial uses (s. 3.2.1.7).²⁰⁷ Secondary uses of farmland are also permitted, including for industrial, recreational, and home-based business; however, these uses must not disrupt or impact upon the use of land for agricultural purposes (s. 3.2.1.1).²⁰⁸

Lucan Biddulph’s Comprehensive Zoning By-law supports the LBOP and local food system activity in a number of ways.²⁰⁹ Under the general use regulations for general agricultural zones (s. 5.1) permitted uses for land include agriculture. In addition, in the exceptions (s. 5.3), defined areas include farmgate markets, which permit the land to be used for a market garden.²¹⁰ Special agricultural zones permit similar uses of land as general agricultural zones, including for agriculture, but on a much smaller plot size (8,000 sq/m) in comparison to the minimum lot area in general agricultural zones (40 hectares).²¹¹ Worth noting for future residential zones (s.13) is that, in addition to the use of land for home occupation, the general use regulations permit as an exception (s. 13.3) the use of existing residential land for market gardens.²¹²

Also important to food system activity are commercial zones, both central (s. 14) and highway commercial zones (s.15). Central commercial zones permit the use of land for convenience

²⁰⁶ Township of Lucan Biddulph, *Official Plan*, Consolidated Version, January 31, 2014, Print, at pp. 4-5.

²⁰⁷ Township of Lucan Biddulph, *Official Plan*, Consolidated Version, January 31, 2014, Print, at p. 33.

²⁰⁸ Township of Lucan Biddulph, *Official Plan*, Consolidated Version, January 31, 2014, Print, at p. 33.

²⁰⁹ Township of Lucan Biddulph, *Comprehensive Zoning By-law*, Consolidated Version, By-Law No. 100-2003, January 2015, Print.

²¹⁰ Township of Lucan Biddulph, *Comprehensive Zoning By-law*, Consolidated Version, By-Law No. 100-2003, January 2015, Print, at p. 35.

²¹¹ Township of Lucan Biddulph, *Comprehensive Zoning By-law*, Consolidated Version, By-Law No. 100-2003, January 2015, Print, at p. 38.

²¹² Township of Lucan Biddulph, *Comprehensive Zoning By-law*, Consolidated Version, By-Law No. 100-2003, January 2015, Print, at p. 67.

stores, institutional use, retail stores, and restaurants.²¹³ Highway commercial zones permit a wider range of uses that relate to food activity, including: drive-in or take-out restaurants; general retail stores; market gardens; mobile food outlets; and restaurants.²¹⁴

Other important zones covered by the by-law include farm commercial zones (s. 16) and farm industrial zones (s. 18). In addition to being used by a farm-building contractor for farm equipment sales and service, farm commercial zones permit the use of land for market gardens, nurseries, and garden centres.²¹⁵ Significantly, farm industrial zones (s. 18) permit uses of land for activities that are directly related to the start and middle of the food supply chain: abattoir; egg grading station; farm building contractor; farm chemical, fertilizer and pesticide sales; farm fuel sales; farm produce; storage; and feed mill.²¹⁶ The other use that farm industrial zones permit that is important for food system activity is found in the special use regulations, and this is a retail store (s. 18.2).

Finally, it is worth noting that the by-law permits the use of land for agriculture in extractive industrial zones (s. 19) but when it comes to open space zones (s. 21), which include public parks, agriculture is not listed as a permitted use. This zoning clause is significant because it limits residents of Lucan Biddulph from using their public parks and other open spaces for such things as community gardens, food forests, and other public agricultural activity.

“The Municipality of Middlesex Centre has a tremendous agricultural resource, and a long-standing agricultural heritage that helps to define our community identity. The agricultural land base represents one of our most significant economic and community assets, with the majority of the Municipality considered Prime Agricultural land. It is a key priority of the Municipality that agricultural areas be protected for agricultural and resource uses, and that the agricultural economy be enhanced within the Municipality. The continued viability of agricultural resource areas, the agricultural industry, and agricultural communities will be protected by the Municipality, in part through the avoidance of land use conflicts and the prevention of non- agricultural urban uses outside of the settlement areas”

(Source: Official Plan of the Municipality of Middlesex Centre, June 24, 2014 at pp. 17.)

Middlesex Centre

Agriculture is a grounding feature of the Municipality of Middlesex Centre’s Official Plan (MCOP). The MCOP has as part of its general agricultural goals to keep agricultural as the primary land use, preserve and protect the area’s agricultural heritage and farmland from non-

²¹³ Township of Lucan Biddulph, *Comprehensive Zoning By-law*, Consolidated Version, By-Law No. 100-2003, January 2015, Print, at p. 69.

²¹⁴ Township of Lucan Biddulph, *Comprehensive Zoning By-law*, Consolidated Version, By-Law No. 100-2003, January 2015, Print, at p. 73.

²¹⁵ Township of Lucan Biddulph, *Comprehensive Zoning By-law*, Consolidated Version, By-Law No. 100-2003, January 2015, Print, at p. 78.

²¹⁶ Township of Lucan Biddulph, *Comprehensive Zoning By-law*, Consolidated Version, By-Law No. 100-2003, January 2015, Print, at p. 85.

agricultural development, and encourage good farm management and stewardship.²¹⁷ The general agricultural policies support these goals by prohibiting the following: use of agricultural land for non-agricultural urban purposes; new estate residential lots beyond settlement areas; and the fragmentation of existing farmland into smaller parcels. Conversely, it encourages the expansion of farm parcels through the consolidation of farm plots.²¹⁸

The primary use of agricultural land in the MCOP is for agriculture; however, and importantly, there are additional commercial and industrial agricultural uses permitted, including “added-value” agriculturally related uses.²¹⁹ These added-value uses are defined as “activities within the farm parcel that relate to onsite or communal farming practices, such as processing, storing and packaging of farm produce. Such communal uses should not exceed a scale necessary to meet the needs of the surrounding agricultural community.”²²⁰

In addition to the general policy protections of agricultural land from being developed for non-agricultural purposes, additional contingencies are established around the recreational development of agricultural land. However, it is important to note that, as long as there are no adverse effects on surrounding agricultural areas and the use is on land that is deemed to be poor for agriculture, farmers markets are a permitted parks and recreational use.²²¹

Another area of the MCOP that relates directly to local food system activity is its tourism policies (s. 9.2.3). These policies seek to encourage economic development of the agricultural sector through non-obtrusive tourism growth opportunities, including agriculturally related and ecologically related tourism.²²²

The Middlesex Centre Zoning By-law divides and regulates the use of land in the municipality into 21 zones.²²³ Of importance to note for local food system activity are the following zones: agricultural zone; restricted agricultural zone; agricultural no-residences zone; farm industrial zone; parks and recreation zone; and open space zones. The permitted uses of land in these zones detail and condition activities that relate to all aspects of the food supply chain; notably, farm inputs, processing; storage; and retail.

²¹⁷ Municipality of Middlesex Centre, Official Plan of the Municipality of Middlesex Centre, June 24, 2014, Print, at p. 17.

²¹⁸ Municipality of Middlesex Centre, Official Plan of the Municipality of Middlesex Centre, June 24, 2014, Print, at p. 17.

²¹⁹ Municipality of Middlesex Centre, Official Plan of the Municipality of Middlesex Centre, June 24, 2014, Print, at p. 18.

²²⁰ Municipality of Middlesex Centre, Official Plan of the Municipality of Middlesex Centre, June 24, 2014, Print, at p. 115.

²²¹ Municipality of Middlesex Centre, Official Plan of the Municipality of Middlesex Centre, June 24, 2014, Print, at p. 68.

²²² Municipality of Middlesex Centre, Official Plan of the Municipality of Middlesex Centre, June 24, 2014 at pp. 72-73.

²²³ Municipality of Middlesex Centre, *Comprehensive Zoning By-law*, Number 2005-005, May 4, 2005.

North Middlesex

Three pillars ground the mission statement of North Middlesex’s Official Plan (NMOP): enhancing agriculture and economic development; enriching community services; and conserving the natural environment.²²⁴ The NMOP’s economic development policies reinforce the first pillar by serving to protect agriculture while developing the industry through diversifying the economy (s. 4.1).²²⁵ One example of how this is done is through tourism related economic development and the encouragement of “agriculturally related and rural resource-related tourism opportunities...”²²⁶ Another way is through the promotion of home occupations and on-farm secondary businesses, such as bed and breakfast establishments.²²⁷

Further to these opportunities, the NMOP protects rural lands and agricultural activity through its settlement area policies (s. 5.0) and general housing policies (s. 5.2.5). These policies limit the expansion of hamlet settlements and prevent “the introduction of new non-farm residential development outside of the Settlement Areas.”²²⁸ When it comes to land uses related to food system activity within settlement areas, central area lands (s. 5.3) and institutional area lands (s. 5.7) are worth noting. On lands designated as central areas, general retail and restaurants are permitted under the primary commercial uses of the land.²²⁹ While agriculture is not listed as a permitted use on lands designated as institutional areas, permitted uses do include major parks and other public uses.²³⁰

The most important of North Middlesex’s designated areas for the local food system are rural areas (s. 6.1), including both urban reserve areas (s.6.3) and agricultural areas (s. 6.4), and open space areas (s. 7.4). According to the general policies for rural areas, non-agricultural urban uses, new non-farm residential lots, and the fragmentation of farm parcels, are strongly discouraged if not prohibited, while “the expansion of farm parcels through lot assembly is encouraged wherever possible.”²³¹ Subject to approval, which takes into consideration both physical and environmental constraints, lands designated as open spaces (s. 7.4) are permitted to be used for agricultural purposes.²³² This is a positive sign for the establishment of community gardens.

Like the other municipalities in Middlesex County, the abovementioned areas and their permitted land uses are detailed in and regulated by a municipal zoning by-law: the North Middlesex Zoning By-Law.²³³ This by-law divides the area into various zones, including those

²²⁴ Municipality of North Middlesex, *Official Plan*, Office Consolidation, June 2014, Print, at pp. 3-1.

²²⁵ Municipality of North Middlesex, *Official Plan*, Office Consolidation, June 2014, Print, at pp. 4-1.

²²⁶ Municipality of North Middlesex, *Official Plan*, Office Consolidation, June 2014, Print, at s. 4.1.2

²²⁷ Municipality of North Middlesex, *Official Plan*, Office Consolidation, June 2014, Print, at s. 4.1.3.

²²⁸ Municipality of North Middlesex, *Official Plan*, Office Consolidation, June 2014, Print, at pp. 5-10.

²²⁹ Municipality of North Middlesex, *Official Plan*, Office Consolidation, June 2014, Print, at pp. 5-12.

²³⁰ Municipality of North Middlesex, *Official Plan*, Office Consolidation, June 2014, Print, at pp. 5-20.

²³¹ Municipality of North Middlesex, *Official Plan*, Office Consolidation, June 2014, Print, at pp. 6-1.

²³² Municipality of North Middlesex, *Official Plan*, Office Consolidation, June 2014, Print, at pp. 7-8.

²³³ Municipality of North Middlesex, *North Middlesex Zoning By-Law No.35 of 2004*, Office Consolidation, June 2015.

areas described above, and details all of the permitted uses of land in these zones. One permitted use of land that stands out as a local food system opportunity is the sale of farm produce from a road side stand in both restricted agricultural and urban reserve zones, so long as the stand is seasonal and does not operate year-round.²³⁴

City of London

There are a combination of policies and supportive initiatives/programs within the City of London that currently exist and therefore demonstrate positive developments, which can be leveraged and built upon to achieve a more local, sustainable and healthy food system.

An analysis follows that covers the policies and supportive initiatives/programs that resulted from an environmental scan conducted as part of a community food assessment in Middlesex-London.

Community Improvement Policies

Community Improvement policies are designed to provide the opportunity to plan for and coordinate physical improvements to areas of the City that tend to be older and in need of repair. These policies are a planning mechanism that can facilitate access to a variety of provincial cost sharing programs as well as encourage private investment activity for the improvement of these areas.²³⁵

In chapter 14 of the City of London's Official Plan it states that the objectives for the use of community improvement policies: "Support the implementation of measures that will assist in achieving sustainable development and sustainable living."²³⁶ This objective suggests that the intended use of the Community Improvement Policies is open to improvements that further sustainable development and living in a particular area. Urban agriculture may in fact fit well within the intended use of these provisions and substantially increase sustainable living within a designated Community Improvement Area. What are the eligibility criteria for an area to be designated a Community Improvement area?

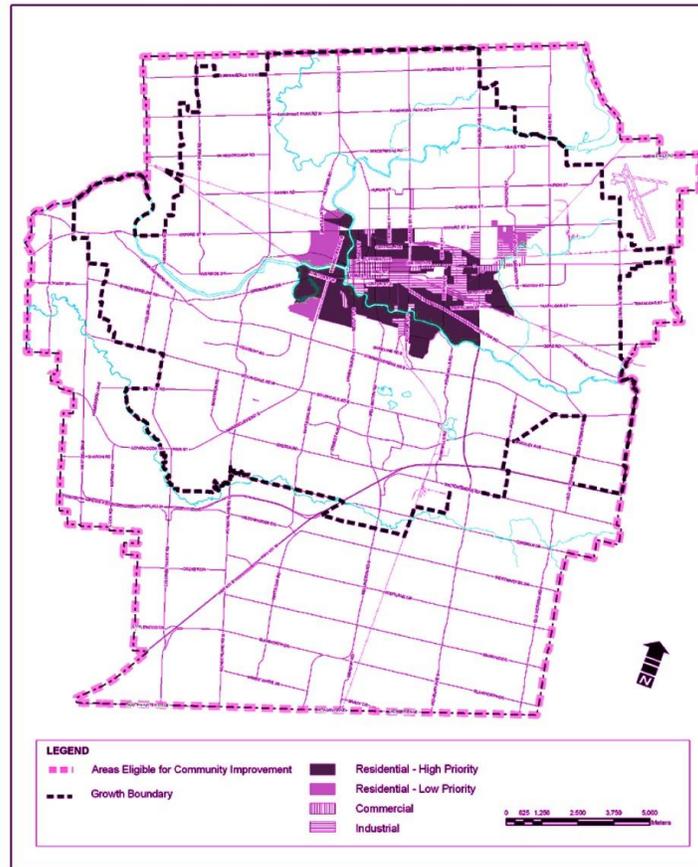
The Council of the City of London qualifies areas from which specific "Community Improvement Project Areas" may be designated in the Official Plan. Council may designate, through passing or amending a by-law, "Community Improvement Project Areas" from the areas shown on Figure 14-1 - Areas Eligible for Community Improvement. These areas are eligible for "community improvement" as defined in the Planning Act. Additional eligible areas may be added by amendment to the Plan. This means to add community improvement areas Council has to amend the Plan.

²³⁴ Municipality of North Middlesex, *North Middlesex Zoning By-Law No.35 of 2004*, Office Consolidation, June 2015, Print, at pp. 79 and 83.

²³⁵ City of London, *Official Plan*, 2008, Print, at s. 14.

²³⁶ City of London, *Official Plan*, 2008, Print, at s. 14.1.

AREAS ELIGIBLE FOR COMMUNITY IMPROVEMENT



Residential

The selection of areas, which are eligible for residential community improvement is based on the following criteria:

- A significant proportion of residential properties in need of rehabilitation;
- Average household income below City average;
- Deficiency or inadequate development of parkland or social and recreational facilities;
- Need for improvement to municipal services including storm sewers, sanitary sewers, sidewalks, curbs and gutters, streetlights, and water mains;
- A stable pattern of land use; and eligibility for designation for assistance

Two categories of eligible residential areas have been defined as follows:

- High Priority Areas, which are currently designated for assistance under a neighbourhood improvement program, or which meet all of the other criteria.
- Low Priority Areas, which are deficient only in municipal services or park and recreational facilities, but not both; or which have indications of instability in the existing pattern of land use.

Food insecurity may potentially be addressed in residential areas that are already designated as High Priority and eligible for designation for assistance. These areas will be lower in income and in disrepair, with inadequate parkland or social and recreational facilities. In these cases, City parkland may be used for a community garden or urban orchard to increase sustainable living of the residents in that community improvement area. Many other possibilities exist to develop infrastructure for a more sustainable food system in community improvement areas, such as, greenhouses, community food centres, urban rooftop farms, community gardens, local food depots or hubs, and others. Attracting private sector investment may be the key for these areas as it may greatly offset the cost for redevelopment from the City's perspective. Researching successful and financially viable models for improving food security in urban areas would furnish policy makers with ready-made, proven solutions for adapting and implementing in the area.

Commercial and Industrial

The selection of areas, which are eligible for commercial or industrial community improvement, is based on the following criteria:

- Land use problems associated with incompatible uses or an under-utilization of land, which detracts from the functioning and viability of the area; and
- A demonstrated interest in community improvement by the private firms within an area.

In summary, a community improvement area can be any commercial or industrial area where land is under-utilized or where a food system project could contribute to the functioning and viability of the area or where an interest in community improvement can be demonstrated from a private firm or firms. This suggests that if a proposed area and project contributes to the viability of local businesses and they express their support, then it may qualify for this designation.

Relevant Land Use Policies

Chapter 9 of the City of London's Official Plan outlines provisions that relate to Agriculture, Rural Settlement and Urban Reserve Land Use Designations. The introduction states a clear intention to protect the agricultural land resources that are within the City of London.

The objectives and policies of this Chapter are intended to protect the agricultural land resource and maintain the viability of farming within these areas so that agriculture continues to make a significant contribution to London's economy. The policies recognize the need for a long term commitment to agriculture and are intended to prohibit the fragmentation of land holdings, minimize the loss of prime agricultural land

to non-farm development, and prohibit the introduction of land uses that are incompatible with, or may potentially constrain farm operations.²³⁷

The permitted uses in areas designated as "Agriculture" are included in Section 9.2 (added by OPA No. 88 - OMB Order No. 2314 - approved 99/12/23) and continue throughout the subsections within 9.2.

In section 9.2.1. of the Official Plan, both primary and secondary permitted uses are described as follows:

Primary Permitted Uses: Within areas designated "Agriculture" on Schedule "A", the primary permitted use of land shall be for the cultivation of land and the raising of livestock. A full range of farming types shall be permitted including, but not limited to, general farming, livestock farming, cash crop farming, market gardening, specialty crops, nurseries, forestry, aquaculture and agricultural research.

A farm residence is permitted as is a home occupation and a secondary farm occupation in accordance with the provisions of policies 9.2.5. and 9.2.6. of this Plan.9.2.2.

Secondary Permitted Uses: Secondary permitted uses in the Agriculture designation include secondary farm dwellings in accordance with the provisions of policy 9.2.7; agriculturally-related commercial and industrial uses, subject to the provisions of policy 9.2.8.; public open space and conservation uses subject to the provisions of policy 9.2.12.; public utilities and storm water management facilities subject to the provisions of Chapter 17. Oil and gas extraction may be permitted in accordance with the provisions of Chapter 15 of this Plan.²³⁸

The fact that market gardening and specialty crops are included in the excerpt above means that smaller scale farming operations are permitted within the areas designated as agriculture.

Section 9.2.8. of the Official Plan covers Agriculturally-Related Commercial and Industrial Uses which can support a farm operation. This permits a farmer to have a small lot within close proximity to the farm where product can be handled, washed, stored, packaged or even sold direct to the consumer. Section 9.2.8 states:

Small-scale agriculturally-related commercial and industrial uses that are supportive of the farm operation and that require a location in close proximity to a farm operation are permitted in areas designated "Agriculture". Such uses include grain drying, handling and storage facilities, and farm market uses. Legally existing agriculturally-related commercial and industrial uses will be recognized in the Zoning By-law. Impacts from

²³⁷ City of London, *Official Plan*, 2008, Print, at s. 9.0.

²³⁸ City of London, *Official Plan*, 2008, Print at s. 9.2.1.

any new or expanding non-agricultural uses on surrounding agricultural operations and lands are to be mitigated to the extent feasible.²³⁹

Also, a positive opportunity exists within the official plan for new agriculturally-related commercial and industrial uses. These uses would require an amendment to the Zoning By-law and must comply with three conditions, namely, size, need and location. See the excerpt from section 9.2.8 of the Official Plan below:

New agriculturally-related commercial and industrial uses may be permitted by an amendment to the Zoning By-law to apply the appropriate agricultural commercial or agricultural industrial zone, subject to the following policies (Section 9.2.8. amended by OPA):

Size

i) The amount of land devoted to the activity includes only the minimum necessary to support the activity and its servicing requirements.

Need

ii) It can be demonstrated that the use is supportive of the farm operation and requires a location in close proximity to the farm operation to function successfully.
(Clause ii) amended by OPA 438 Dec. 17/09)

Location

iii) The location of the facility should not impose any operating constraints or result in a reduction of the efficiency of existing farms in the vicinity. Agriculturally-related commercial and industrial uses should be directed to sites having soil capability, drainage, topographic, site size or configuration limitations for agriculture.²⁴⁰

Toward the end of Chapter 4 of the City of London's Official Plan covering Downtown and Commercial Land Use Designations, in section 4.11 drive-through facilities are described as permitted uses with some restrictions. In cases, when a new drive-through facility is proposed the Zoning By-law would need to be amended. Consideration of the matters identified in Section 4.11 (Drive Through Facilities).

Drive-through facilities are normally associated with restaurants, financial institutions, convenience stores, automobile services stations and a limited range of retail uses, and are normally located in auto-oriented commercial designations. Drive-through facilities are permitted in commercial land uses designations other than Downtown and Business District Commercial through a zoning by-law amendment and/or site plan application, subject to the application of urban design guidelines. Urban design guidelines will address such issues as built form and streetscape, pedestrian circulation, vehicular

²³⁹ City of London, *Official Plan*, 2008, Print, at s. 9.2.8.

²⁴⁰ City of London, *Official Plan*, 2008, Print, at s. 9.2.8.

access and parking, landscaping and signage. Particular attending shall be given to site, which abut residential uses. (OPA 444 passed 2008/07/22).²⁴¹

Within the policy covering Downtown and Commercial Land Use Designations a drive-through food hub or local food depot, or some other local food drive-through may be permitted with an amendment to the Zoning By-law.

Open Space Land Use

Open space land use is described in section 8A.2.2. in the City of London's Official Plan. Permitted uses are detailed for open space in the following passage:

Public open space uses including district, city-wide, and regional parks; and private open space uses such as cemeteries and private golf courses are permitted in the Open Space designation. Agriculture; woodlot management; horticulture; conservation; essential public utilities and municipal services; and recreational and community facilities; may also be permitted. Zoning on individual sites may not allow for the full range of permitted uses.²⁴²

The uses for public and private open space indicated in the passage above, clearly allow for the cultivation of food, recreational and community facilities. This means there is a possibility that community gardens and/or local community food centres could be permitted on open public or open private spaces.

Extremely relevant to the possibility of using open public space for growing food is a motion City Council passed on August 25, 2015, in which the Community and Protective Services Committee proposed that Civic Administration be directed to proceed with stakeholder consultation on the feasibility of an urban agriculture policy which outlines:

- i) An inventory of parcels of City-owned land that are potential locations for urban farming;
- ii) The role the City of London could play with regard to urban farming on public lands;
- iii) A clear definition of "urban agriculture"; and,
- iv) A review of the current license policies and by-laws to ensure that the City plays a role that does not hinder the various aspects of urban agriculture such as land preparation, food growth, food production and food sales.²⁴³

²⁴¹ City of London, *Official Plan*, 2008 Print, at s. 4.11.

²⁴² City of London, *Official Plan*, 2008, Print, at s. 8A 2.2.

²⁴³ City of London, "9th Report of the Community and Protective Services Committee," August 25, 2015, Web at <http://sire.london.ca/mtgviewer.aspx?meetid=971&doctype=MINUTES>.

Bonus Zoning

Bonus Zoning is detailed in section 19.4.4 of the Official Plan and relates to increases in height restrictions and density limits applicable to developments that are proposed. The principle of the bonus zoning by-law is that these height and density restrictions may be extended when there are no negative cost/benefit implications and there is a general public benefit. This means that rooftop gardens or rooftop greenhouse structures may be permitted within and under the bonus zoning. Section 19.4.4 states:

Principle

1. The facilities, services or matters that would be provided in consideration of a height or density bonus should be reasonable, in terms of their cost/benefit implications, for both the City and the developer and must result in a benefit to the general public and/or an enhancement of the design or amenities of a development to the extent that a greater density or height is warranted. Also, the height and density bonuses received should not result in a scale of development that is incompatible with adjacent uses or exceeds the capacity of available municipal services.²⁴⁴

The need for public benefit is also expressed in the stated objectives of the bonus zoning policy and explains that in cases when the public benefit cannot be obtained through normal development.

Objectives

ii) Bonus Zoning is provided to encourage development features which result in a public benefit which cannot be obtained through the normal development process. Bonus zoning will be used to support the City's **urban design principles**, as contained in Chapter 11 and other policies of the Plan, and may include one or more of the following objectives:

- a) To support the provision of the development of affordable housing as provided for by 12.2.2.
- b) To support the provision of common open space that is functional for active or passive recreational use;
- c) To support the provision of underground parking;
- d) To encourage aesthetically attractive residential developments through the enhanced provision of landscaped open space;
- e) To support the provision of, and improved access to, public open space, supplementary to any parkland dedication requirements;
- f) To support the provision of employment-related day care facilities;

²⁴⁴ City of London, *Official Plan*, Print, at s. 19.4.4.

- g) To support the preservation of structures and/or districts identified as being of cultural heritage value or interest by the City of London, in consideration for their designation under the Ontario Heritage Act;
(Clause (g) amended by Ministry Mod. #63 Dec. 17/09)
- h) To support **innovative and environmentally sensitive development** which incorporates notable design features, promotes energy conservation, waste and water recycling and use of public transit;
- i) To support the preservation of natural areas and/or features; and
- j) To support the provision of design features that provide for universal accessibility in new construction and/or redevelopment.
(Clauses (i) and (j) added by OPA 438 Dec. 17/09)²⁴⁵

Recent additions to the bonus zoning objectives may in fact be intended or at least open for application to rooftop gardens and other urban agriculture projects, as “innovative and environmentally sensitive development”. Also, clause b) and e) mention public or common open space which is open to agricultural use. Many urban agriculture projects may be positioned within clause h) by incorporating water reuse and recycling and energy conservation. An example of this is that rooftop gardens help to insulate and shade rooftops, and often incorporate storm water drainage measures that help slow roof run-off and recycle rainwater for plant irrigation. These benefits have been documented extensively in Germany, and as early as 2002 in Canada by the National Research Council of Canada.²⁴⁶

Agriculture

Section 9.2.6. of the Official Plan, gives a detailed description of secondary farm occupations, and permits farmers to improve the viability of their farm by taking on a secondary farm occupation, such as, the processing or retailing of goods produced on the farm.

Secondary Farm Occupations

Secondary farm occupations are to be carried on as part of the farm unit as a means of providing supplemental income to support the farm family and the viability of the primary farming operation. A secondary farm occupation conducted with a building other than a dwelling may be permitted provided it remains secondary to the agricultural use on the farm. Secondary farm occupations are differentiated from "home occupations" by the larger size and scale of the activity. A secondary farm occupation may be permitted by an amendment to the Zoning By-law subject to the following criteria:

Permitted Occupations

- i) A secondary farm occupation may include the processing or retailing of goods produced on the farm, a welding or fabricating shop, a vehicle repair establishment, a contractor or

²⁴⁵ City of London, *Official Plan*, 2008, Print, at s. 19.4.4.

²⁴⁶ Liu, K.K.Y., “Energy Efficiency and Environmental Benefits of Rooftop Gardens, Construction Canada,” 44: 2, March 2002, Print, at p. 17 and pp. 20-23.

trade shop, a personal service establishment, a craftsperson's shop, a day care facility, a seasonal roadside produce stand, a bed and breakfast or farm vacation establishment, a small business office, or any other occupation which is directly related to agriculture.

Number of Activities

ii) One permanent secondary farm occupation will be permitted per farm lot in addition to seasonal or intermittent uses permitted in conjunction with the primary farm operation.

Size

iii) Existing buildings or structures may be used for a secondary farm occupation. New buildings or structures, or additions to buildings or structures may be constructed for the purposes of the secondary farm occupation as part of the farm cluster but shall be of comparatively small scale relative to the farm operation, as established through the Zoning By-law.

Employees

iv) A secondary farm occupation shall be operated directly by the resident farmer and immediate family members and a maximum of two additional employees.

Location

v) A secondary farm occupation shall be conducted in conjunction with the existing farm cluster including any new buildings or facilities constructed for the secondary use. Access to secondary farm occupations shall be restricted to an existing driveway and no new driveway will be permitted.

Servicing

vi) Adequate on-site sewage and water systems can be provided to accommodate the secondary farm occupation.²⁴⁷

Draft London Official Plan

At the time of writing this report, the City of London is drafting a new Official Plan. Currently, the plan is in its second draft and is out for public review and feedback. There are many components of the draft that support the development of a stronger, more sustainable local food system.

The draft Official Plan focuses on developing a culturally rich and diverse city. In relation to the local food system, London will become a regional cultural centre by providing abundant employment and learning opportunities in food and agriculture, among others.²⁴⁸ Furthermore, London aims to be a green and healthy city. One of the means by which this will be achieved is through using their asset of being located in the centre of agriculture in Southwestern Ontario.

²⁴⁷ City of London, *Official Plan*, Print, at s. 9.2.6.

²⁴⁸ City of London. *Official Plan Second Draft*, Print, at p. 141.

By leveraging this asset, London will grow a strong food system that allows its residents to access healthy food (in part by identifying and eliminating food deserts).²⁴⁹

The draft contains a section that focuses on the local food system. London's food system is defined as the:

...Prime agricultural land in and around our city, as well as the significant agri-food industry that exists in London that processes, packages, and transports our food to the world. Our food system involves backyard and community gardens, local businesses, and restaurants that sell and serve food, and farmers markets that bring residents, food businesses, and local growers together.²⁵⁰

Within London's food system, the draft Official Plan seeks to achieve a number of goals, and these include:

- a) A sustainable food system that contributes to the economics, ecological, and social well-being of our city and region.
- b) Local food production and access to local, regional, national and international agricultural trade markets.
- c) A strengthened local food system infrastructure.
- d) Ready access to high-quality retail grocery stores, farmers' markets, and other food sources which provide affordable, safe, healthy, culturally diverse, and local foods.
- e) Alternative ways that Londoners grow. Process and sell food within the city.
- f) Opportunities for urban food production on private and public lands.
- g) Community economic development through the growth, processing, packaging, distribution, marketing, sale, and serving of food.
- h) Mechanisms that support and promote food waste recovery and re-use systems that retain biological nutrients for local farmers or other food producers.²⁵¹

The city will work towards accomplishing these objectives through comprehensive food system planning, community benefit, public/private partnerships and investment by the city.²⁵² Initiatives within each of these areas include, but are not limited to, preparing and implementing a community garden strategy, promoting the local production of food with other tourism and recreational activity, supporting before-school programs that provide nutritional meals to children in the morning, in identified food deserts encouraging farmers markets, grocery stores, and community gardens, and supporting small business and entrepreneurs involved in the production of artisanal food products and other goods using locally-sourced materials.²⁵³

²⁴⁹ City of London. *Official Plan Second Draft*, Print, at p. 171.

²⁵⁰ City of London. *Official Plan Second Draft*, Print, at p. 163.

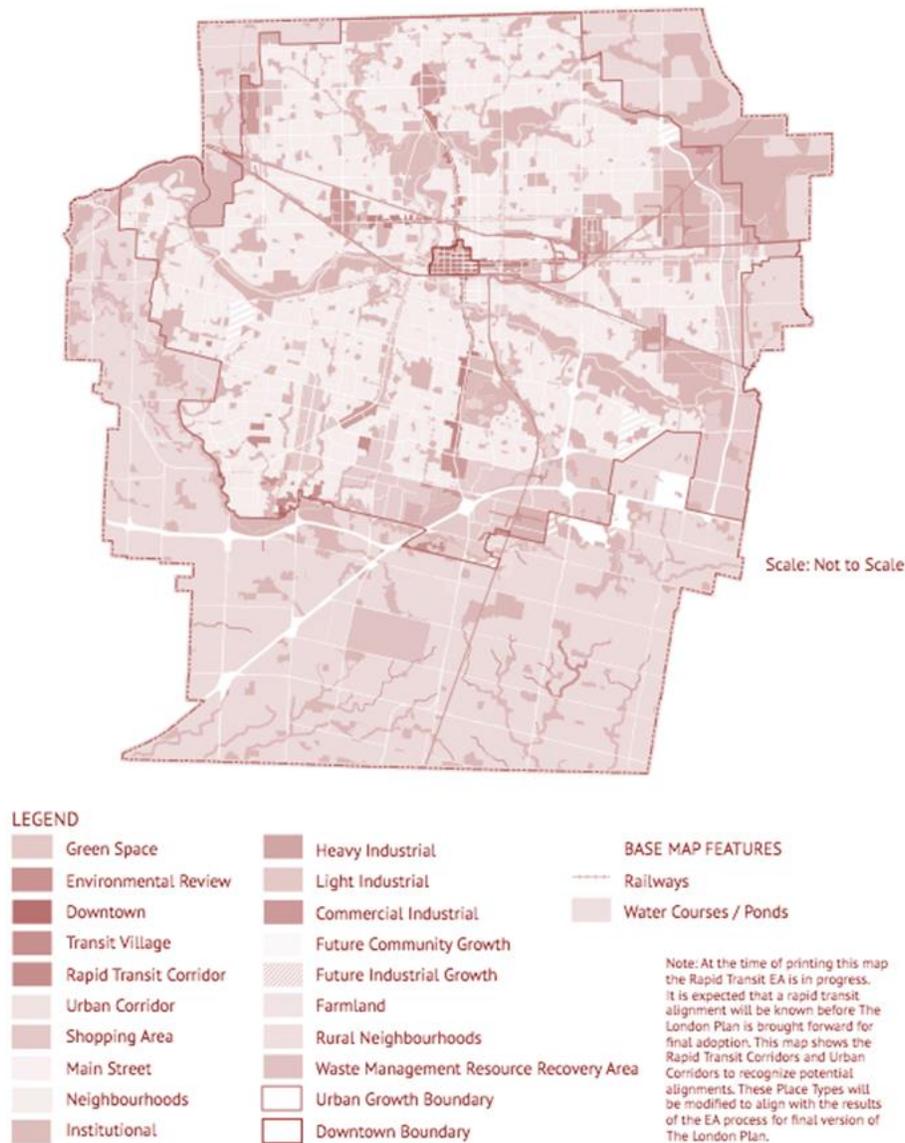
²⁵¹ City of London. *Official Plan Second Draft*, Print, at p. 164.

²⁵² City of London. *Official Plan Second Draft*, Print, at p. 163.

²⁵³ City of London. *Official Plan Second Draft*, Print, at p. 165-166.

The Forest City section of the plan serves to preserve all of the trees and associated vegetation within London’s boundary. The plan recognizes the Urban Forest as integral to London’s identity and overall prosperity and subsequently, land use policies will serve to protect this resource. Bonus Zoning policies will focus on increasing building height and densities when appropriate in order to support the sale and long-term preservation of the Urban Forest.

Figure 53: City of London by Place Type (Source: London’s Official Plan Second Draft, 2015)



One of the draft Official Plan’s priorities is to “protect the agricultural land resource and maintain the viability of farming, and recognize the need for a long-term commitment to sustain farmland within these areas so that it may continue to make a significant contribution

to London's economy."²⁵⁴ Rural London, which consists of the place types farmland, rural neighbourhood, waste management resource recovery area, green space, and environmental review, has its own unique function and distinct identity from Urban London; however, they are both integral to one another, and supportive and supported by the other.²⁵⁵ The vision for Farmland Place Type includes:

Farmland in London will continue to be an area of intense production and vibrant economic activity. The landscape will be characterized by viable agricultural fields which support general farming, livestock farming, cash crop farming, market gardening, specialty crops, nurseries, forestry, aquaculture, and agricultural research. Agricultural production on farmland will include multiple scales, styles and systems of food, fuel, and fibre production. Farmers and the farming community, agricultural land, a healthy and vibrant rural economy, and rural quality of life will all be protected for the long-term. Agricultural uses, agricultural-related commercial and industrial uses and on-farm diversified uses will be permitted. Farms will be permitted to sell local produce and house full-time farm labour on-site to maintain the farm's vitality.²⁵⁶

The Farmland Place Type's role within the city is to promote sustainable farm practices that encourage the protection of aquatic and wildlife habitat, woodlands, and surface and groundwater resources in a manner where such practices do not impose undue limitation on the farming community.

Supportive Initiatives/Programs

Community Garden Policy

Community Gardens are a forward thinking initiative that supports the development of a local and sustainable food system while addressing food insecurity in the community. Interested citizens can become community gardeners and apply for a plot of land, which they can cultivate and use to produce foods of their choice. The City of London has been supportive of these initiatives for many years. The City of London, local businesses and churches have donated the land. The City of London Parks and Recreation provides services including, rototilling and at some sites, water delivery.

The City of London Community Gardens 2013 Guidelines sets out some standardized policies, procedures and accountabilities to support London's Community Gardens Program.²⁵⁷ The policies, procedures and accountabilities are broken into the following categories and subcategories:

²⁵⁴ City of London. *Official Plan Second Draft*, Print, at p. 311.

²⁵⁵ City of London. *Official Plan Second Draft*, Print, at p. 311.

²⁵⁶ City of London. *Official Plan Second Draft*, Print, at p. 313.

²⁵⁷ Guidelines for community gardens have been developed by the City of London and the London Community Resource Centre and are available at the following link: <http://lcrcc.on.ca/wp/wp-content/uploads/2013/03/Londons-Community-Gardens-2013-Guidelines.pdf>.

1. Existing Community Gardens
 - Code of conduct and conditions of use
 - Consequences of failing to comply
 - Responsibilities of community gardeners
 - Responsibilities of the City of London
 - Responsibilities of the coordinating agency
 - Submitting an application for a plot
2. New Community Gardens
 - Submitting an application for a new community garden
 - Constructing a new community garden
3. Composting In Community Gardens.²⁵⁸

Further support for community gardens is entrenched into the *London Community Gardens Program Strategic Plan 2015-2019*, which City Council endorsed in September 2015.²⁵⁹

Farmers Market

Middlesex-London Local Food Guide was funded by the Middlesex Federation of Agriculture and features places to get local food including: 1) markets and mills; 2) fruits and vegetables, 3) honey, maple syrup and preserves, and 4) meats and fish. Among other helpful information, the Local Food Guide helps individuals understand when local products are in season, the benefits of buying local and tips for buying local. This tool helps individuals seeking fresh healthy local foods to explore and source products within their area (see Food Purchasing and Consumption for an illustration of the Local Food Guide).

Local Rooftop Gardens

The City of London's City Hall building has a rooftop garden and the University of Western Ontario has a rooftop garden as well. These gardens are not being used for agricultural purposes but are surely signs that greening urban spaces has become acceptable.

Food Security Initiatives (Funding)

Within the City of London's endorsed Social Policy Framework, food security is identified as a priority area along with income security, social inclusion and safe, affordable housing. In the framework itself the role of the municipality in Food Security is described as follows:

While the City of London does not directly deliver programs related to food security, the municipality has a significant history of investing municipal funds in a number of local

²⁵⁸ London Community Resource Centre, *London Community Gardens 2013 Guidelines*, 2013, Print, at p.7-12.

²⁵⁹ City of London, *London Community Gardens Program Strategic Plan 2015-2019*, 2015, Print.

food security initiatives. For example, 100% municipal funds available through the MAPAG Fund have been invested in community gardens and collective kitchens for a number of years.

In addition, the City of London has been an active participant in the Hunger Relief Advisory Committee (HRAC), which was formed to address the need for and delivery of "emergency" food and coordination of related services.

Further details regarding each of these policy issues and the role of the City of London in responding to them will be outlined in a subsequent City of London policy paper on food security.²⁶⁰

MAPAG Fund stands for the Mayor's Anti-Poverty Action Group Fund, which contributed approximately \$1.5 million dollars of funding to anti-poverty and many food security initiatives between the years 1999 and 2003.

In addition to the City of London's Social Policy Framework, the Mayor's Advisory Panel on Poverty just released "London for All: A Roadmap to End Poverty" (April 2016). In recognizing that "it's time to act," the report sets out comprehensive recommendations towards implementing lasting change. With respect to igniting food security change in the community, the report suggests that supporting the development of a Middlesex-London Food Policy Council is an important step in the first 12 months because "each recommendation by itself may make a small difference, but a coordinated, collective approach to implementing them can have dramatic impacts."²⁶¹

London Community Resource Centre

The London Community Resource Centre (LCRC) has been an integral part of the City of London for more than 30 years. Through the facilitation of multiple community-based programs, the LCRC actively addresses the issue of food security that affects a broad scope of city residents.

The LCRC is a volunteer-driven, non-profit, charitable organization that depends on the support of the community, including local businesses and community partners, in order to continue and succeed in the delivery of food-security programs. They are also one of four founding members of FoodNet Ontario, a pan-provincial network of organizations working towards creating local sustainable food systems and achieving community food security.

"People should be able to grow whatever food they want all over their front yard. It's FOOD for goodness sake."

- Survey Respondent

²⁶⁰ London Community Resource Centre, *City of London Social Policy Framework*, 2006, Print, at pp. 20-21.

²⁶¹ Mayor's Advisory Panel on Poverty, *London for All: A Roadmap to End Poverty*, March 2016, Print at 23.

Food Charter (not Policy)

Through the leadership of London's Child and Youth Network, a group of experts, professionals, and advocates came together in fall 2009 to discuss the issues Londoners face related to food security. This conversation began the development of a Food Charter. It is important to note that London's Food Charter is the only one that has been developed in Middlesex-London.

The Child and Youth Network (CYN) is comprised of over 130 local organizations working together to improve outcomes for children, youth and families. With the vision of "happy, healthy children and youth today; caring, creative, responsible adults tomorrow" the CYN's work is focused on four priority areas:

- Ending poverty
- Increasing healthy eating and healthy physical activity
- Making literacy a way of life
- Creating a family-centred service system

Tourism Strategies

The County of Middlesex, Tourism Middlesex, is Middlesex County's Destination Marketing Organization that represents Middlesex on a regional level regarding tourism development initiatives. It focuses on the development of rural and agricultural tourism opportunity for the eight municipalities in Middlesex County.²⁶²

Visit Middlesex, a division of Middlesex County's Economic Development department, is responsible for tourism development and promotion within the County. Their mission is to generate meaningful employment, support economic growth, and build up Middlesex County's exceptional quality of life.²⁶³ Visit Middlesex has an agri-tourism strategy that focuses on connecting visitors to farms and markets through agri-trail guides. The guides connect visitors to local food (fruits, vegetables, meats, preserves, breads and beverages) and other forms of entertainment (corn mazes, zip lining, and wagon/sleigh/train rides).

Taste of Middlesex is an annual event where restaurants, gourmet food vendors, and beverage distributors come together to provide all-you-can-eat culinary delights for as many as 1,000 attendees. In 2015, Taste of Middlesex was in its 18th year and more than 50 restaurants and eateries participated.

Tourism London suggests things to do for visitors to the city, including places to eat, where to stay, and current events. They also market London as a destination of choice for sporting events through the sport tourism initiative.

²⁶² Tourism Middlesex, *County of Middlesex Budget Committee*, 2015, Web, at

https://www.middlesex.ca/council/2015/march/10/budget2015/Tourism_middlesex.pdf.

²⁶³ Visit Middlesex County, "About," No Date, Web, at <https://www.visitmiddlesex.ca/about>.

Advocacy Efforts and Collaborations in Middlesex-London

There are a number of food advocacy organizations and collaboratives that are working towards a more sustainable local food system for Middlesex-London. The table below provides the names of these organizations/collaboratives, what work they are engaged in, and what geographical area this work targets. It should be noted that this is not an exhaustive list, and it is likely that there are additional groups involved in this work that are not in the table.

“London needs an Urban Agriculture Master Plan!!!!!!”
- Survey Respondent

Table 39: Collaboratives Involved in Food System Work and Food Advocacy Organizations (Source: Primary Research, August-December 2015)

Who	What	Where		
		Middlesex-London	London	Middlesex County
Agri-business London Chamber of Commerce	The committee develops education and awareness programs that support the region’s vast agri-business sector (in rural Ontario). The committee also supports and enhances agricultural economic development activity through designated agencies and organizations by use of Chamber communications, networking opportunities, advocacy efforts, and promotion.	✓		
Child & Youth Network	The network serves to end poverty, make literacy a way of life, increase healthy eating and healthy physical activity, and create a family centered service system.		✓	
Community Gardens London	Community Gardens London celebrates the shared and community gardens of London and area, and the potential of urban agriculture. The focus is to support and advocate for food producing gardens and their role in individual and urban food security, our good health and environmental health.		✓	
Food Not Lawns	Food Not Lawns was founded in 1999 by a group of Food Not Bombs activists in Eugene, Oregon. In 2006, a co-founder of the group, Heather Jo Flores, published her book, <i>Food Not Lawns, How to Turn your Yard into a Garden and Your Neighborhood into a Community</i> . Currently there are over 50 chapters worldwide who, as gardeners, work together to grow and share food, seeds, skills and resources.		✓	
Glencoe Agricultural Society	The Glencoe Agricultural Society holds various community events, including an annual fair, related to the food system throughout the year.	✓		
Growing Chefs!	Growing Chefs! serves to provide an avenue for chefs and growers to get more involved in the community and to support food education; to provide children with the confidence, knowledge and enthusiasm to		✓	

Who	What	Where		
		Middlesex-London	London	Middlesex County
	grow and prepare good, healthy cuisine; and to support and encourage the development and growth of food education for children and families. Growing Chefs! advocates for food literacy efforts that target children and youth.			
Hamilton Road Area Food Security Initiative (through Crouch Neighbourhood Resource Centre)	The purpose of the Hamilton Road Area Food Security Initiative is to build the capacity of the neighbourhood to develop local and sustainable food systems. This will be accomplished through the form of Neighbourhood Food Coalition meetings, Food Families projects, and a Neighbourhood Food Hub. The Neighbourhood Food Coalition involves a diverse group of stakeholders working collaboratively with the neighbourhood while sharing knowledge, information, and resources. Food Families is a cluster of differing food programs and activities that aim to enhance food security of the families living in this neighbourhood. The Neighbourhood Food Hub is a physical place in the neighbourhood that will offer a centralized access point to a wide range of food related programs, services, and resources available to community members.		✓	
Hunger Relief Advisory Committee	This committee was formed to address the need for and delivery of "emergency" food and coordination of related services in London.		✓	
London Community Resource Centre	The centre supports the local food system through largely urban agricultural projects including Sprouts Children's Garden Program, community gardens and Grow Cook Learn workshops.		✓	
London Food Bank	The London Food Bank engages in advocacy efforts through ensuring that support and information are constantly available to anyone who needs it and works with many others groups towards a solution to poverty in Canada.		✓	
London Gets Local	The aim is to create an interactive directory expanding access to organic, non GMO, locally-sourced and natural products while keeping shopping dollars within the local community. The groups works to connect a non-biased and non-judgemental community sharing common values; provide information regarding what is in season, products available, specials, community events and workshops; educate on how to live a healthy life and feed your family the best foods on a reasonable budget; inform people where to obtain these products while reducing carbon foot print and keeping your shopping dollars close to home.	✓		
London InterCommunity	The centre provides inclusive and equitable health and		✓	

Who	What	Where		
		Middlesex-London	London	Middlesex County
Health Centre	social services to those who experience barriers to care, and fosters the active participation of individuals and the communities they serve. The centre contributes to food literacy efforts through offering cooking classes to interested groups. Advocacy is one of the Health Centre's values and firmly believes that for a situation to change for their clients for the better, the centre must be involved in advocating for social policy to change.			
London Training Centre	The London Training Centre supports the local food system through their Local Food Skills program where participants gain real skills and work with real food in a state of the art commercial kitchen. Moreover, the centre has 25 years of food skills training, advocacy for careers in foodservice and a commitment to a local, sustainable food system.	✓		
Mayor's Advisory Panel on Poverty	The responsibility of this collaborative, consisting of six individuals, is to develop a set of action-oriented recommendations on how London can address poverty more effectively as a community. The panel has five goals it hopes to achieve including: Developing a shared understanding of how to address poverty more effectively in London; Mapping efforts currently underway to address poverty in London; Identifying gaps and areas requiring significant action; Engaging local stakeholders in dialogue on gaps and approaches to address poverty; and Developing a set of recommendations to better coordinate our collective efforts to address issues related to poverty more effectively throughout London and the areas requiring significant action.		✓	
Middlesex-London Health Unit	Through the Harvest Bucks program, MLHU works with community organizations to distribute Harvest Bucks to people in need so that they can better affordable healthy, local food from farmers' markets. Currently, MLHU partners with five local farmers' markets for this program.	✓		
Middlesex Federation of Agriculture	This Federation works on a local level to represent the voice of the farmers (1,800 members) in Ontario Agriculture. The MFA is pro-active and responsive to local issues that directly impact farmers in Middlesex County. The MFA acts as a sounding board for municipal issues and bylaws and facilitates education through providing producer and public information and offering scholarship opportunities for people interested in agriculture.			✓
Middlesex London <i>in motion</i>	This organization encourages initiatives and advocates for a culture of healthy lifestyles. A recent advocacy effort includes increasing access to affordable healthy	✓		

Who	What	Where		
		Middlesex-London	London	Middlesex County
	food within Middlesex-London.			
North Dorchester Agricultural Society	The mission of NDAS is the preservation of the past; promotion of the present and the education on the future of agriculture, horticulture and rural and domestic economy. The Society holds and promotes an agricultural fair each year to serve as its primary medium to achieve this mission.	✓		
ReForest London	ReForest London is a non-profit organization dedicated to partnering with the community to enhance environmental and human health in the Forest City, through the benefits of trees. The group works to empower community groups, businesses, and individuals to plant and care for trees; Improve London's environmental health through planting trees and shrubs in natural areas, parks, yards and along streets; and educate Londoners about the importance of trees and how to plant and care for them.		✓	
London Strengthening Neighbourhoods Strategy	The London Strengthening Neighbourhoods Strategy is resident driven and supported by the City of London. Through the implementation of the strategy, a series of tools and programs have been developed to empower resident groups called NeighbourGood London. The strategy continues to evolve focusing on increasing neighbourhood level decision-making and activities.		✓	

8.2 Gaps in Knowledge

The list of organizations involved in food advocacy and collaboratives engaged in food system work provided in Table 39 is not an exhaustive list. The table was populated through desk research and consultation with key informants and community members; however, it is possible that not all organizations and collaboratives have been mentioned.

The perceptions and willingness of current, local council members on proposing progressive agri-food policies is not well documented; however, indications of a willingness to support urban agriculture within the City of London are encouraging. A local, healthy and sustainable food system survey for local councillors could be highly beneficial. It would be focused on gauging their willingness to support progressive agri-food policies and could identify areas where more immediate and longer-term results may be achieved.

8.3 Strengths and Assets

The Middlesex-London food system has many assets within policy and advocacy that can be used to make a stronger, more sustainable food system. Within social and political assets, the two assets are the London Food Charter and Middlesex County’s Official Plan’s core objective to protect the agricultural community. The Middlesex County Official Plan helps to sustain agriculture practices in the long-term within the area, contributing to a stronger local food system.

The growing momentum to create a Food Policy Council for the local food system was noted as another social and political asset. Having a designated group of dedicated individuals creates an opportunity to advance policy, acquire funds and champion local initiatives, to support progressive changes in developing a sustainable food system for Middlesex-London.

Additional assets include London councillors who are supportive of urban agriculture, the food system section of London’s Official Plan that highlights the importance of the food system to the community, as well as, the Child & Youth Network’s advocacy work on spreading awareness of food deserts within the area. The London Plan creates many opportunities to increase food literacy, sales amongst local growers, and the number of community gardens.

Table 40 lists all of the strengths and assets identified through the community food assessment process that pertain to this section of the report (please see 1.2 for Asset Legend).

Table 40: Strengths and Assets within Policy and Advocacy

POLICY AND ADVOCACY						
96. Non-for-profit and public interest/engagement in local food						
97. London Training Centre’s Sustainable Food Systems Report (Aug 2012) 60 recommendations on how to build a more sustainable food system						
98. Food Not Lawns						
99. London Food Charter						

POLICY AND ADVOCACY

100. Middlesex County's Official Plan (protection of the agricultural community)
101. Move towards creating a Food Policy Council
102. New City Council (aware of the importance of the local food system and receptive to urban agriculture)
103. Child and Youth Network Ending Poverty Group
104. The London Plan
105. There is a drive for policy change and development (e.g. to implement local food hubs, to support small scale-production)
106. Child and Youth Network (Healthy Eating Initiative)

8.4 Areas to Cultivate

Within policy and advocacy, it was identified that small-scale farms are struggling as a lot of agricultural policy supports large-scale production. Many noted that planning policy is part of this problem, as minimum lot sizes are set in rural areas to keep farm plots large enough to allow for large-scale production. Minimum lot sizes were seen in many of the Official Plans noted above. Generally, the view implied by these policies is that small-scale agriculture is an unviable economic model. With a focus on large-scale agriculture production, it makes it very difficult for small-scale farmers to thrive and therefore, contribute to the local food system. Many people throughout the Community Food Assessment process explained that this problem is not unique to Middlesex-London, but is an identified issue across the nation. In response to the focus on large-scale agriculture production, many community food initiatives through the charitable sector or community-benefit sector are arising to preserve cultural traditions, agricultural practices and communities.

Additional problems identified related to policy and advocacy, include the lack of change to provincial regulations that make it difficult for local food businesses to thrive. Some felt that there was not enough advocacy work being done to challenge the Ontario government whereas, others believe there is a shortage of leaders who can mobilize people on food system issues. Many also noted a focus on food security, rather than food sovereignty, as impeding Middlesex-London from having a stronger more sustainable food system.

8.5 Opportunities for Change

In order to address some of the weaker areas within food policy and advocacy, key informants highlighted opportunities to increase production, challenge regulations and zoning strategies, encourage procurement of local food, and increase knowledge of farmers. More specifically, opportunities exist to farm smaller plots of land more intensively, including those areas in

urban locations. The need for advocacy efforts in regards to challenging policies that do not support a local food system was also noted (e.g. zoning strategies that increase urban sprawl onto agriculturally rich land). Many felt that within the non-profit sector there is an opportunity to increase the amount of advocacy work that is being done.

Increased advocacy efforts to challenge regulations that inhibit growth or prevent small scale businesses from competing in the marketplace was identified as another opportunity. Advocacy efforts could be strengthened by gathering evidence of small-scale operations within the food system that are viable and using these examples to leverage support from residents and politicians. Encouraging local food service businesses and institutions to purchase locally grown food would also help to support small-scale farmers and the local economy, as would a food hub that helps with local food distribution. Lastly, in regards to farmer education, a number of opportunities were identified to help support them. Opportunities to train farmers to scale up and manage their own growth, increasing the accessibility of farm education to residents, and assisting local farmers in marketing and retailing their product were identified.

With the large amount of land that encompasses Middlesex-London, there are numerous opportunities that can take advantage of this asset to strengthen the local food system. Land use policy has been used in the past to develop Netherland-style care farms where mental and physical health are promoted through giving people of all ages opportunity to spend time working on the land. Care farms provide supervised, structured programs of farming-related activities such as animal husbandry and crop and vegetable production.²⁶⁴

Given the small geographical proximity between Middlesex County and London, there may also be opportunities to develop an agrihood, where agriculture and neighbourhoods are combined. Within these communities, the community is located among or around a farm, and all community members work together on the farm to grow fresh produce for the community.

Participation in the Plant a Row, Grow a Row campaign could also be built into the policies of community gardens as a mandatory component of the initiative. Through this campaign homeowners and community gardeners are encouraged to plant an extra row (or more) of produce and donate the harvest to those in need in their community, either through food banks or other means.

Pertaining specifically to the City of London, policies can be used to support urban orchards and other urban agriculture projects that include green (environmentally friendly) infrastructure.

²⁶⁴ National Care Farming Institute, "What is Care Farming?" 2014, Web, at <http://www.ncfi.org.uk>.

8.0 POLICY AND ADVOCACY

“opportunities for urban food production on private and public lands”

“Agriculture is arguably the economic mainstay and defining characteristic of the Township of Lucan Biddulph”

“...farm parcels shall remain sufficiently large to ensure flexibility and the economic viability of the farm operation”

“the municipality has a significant history of investing municipal funds in a number of local food security initiatives”

“agriculture is the cornerstone of the County's economy and culture”

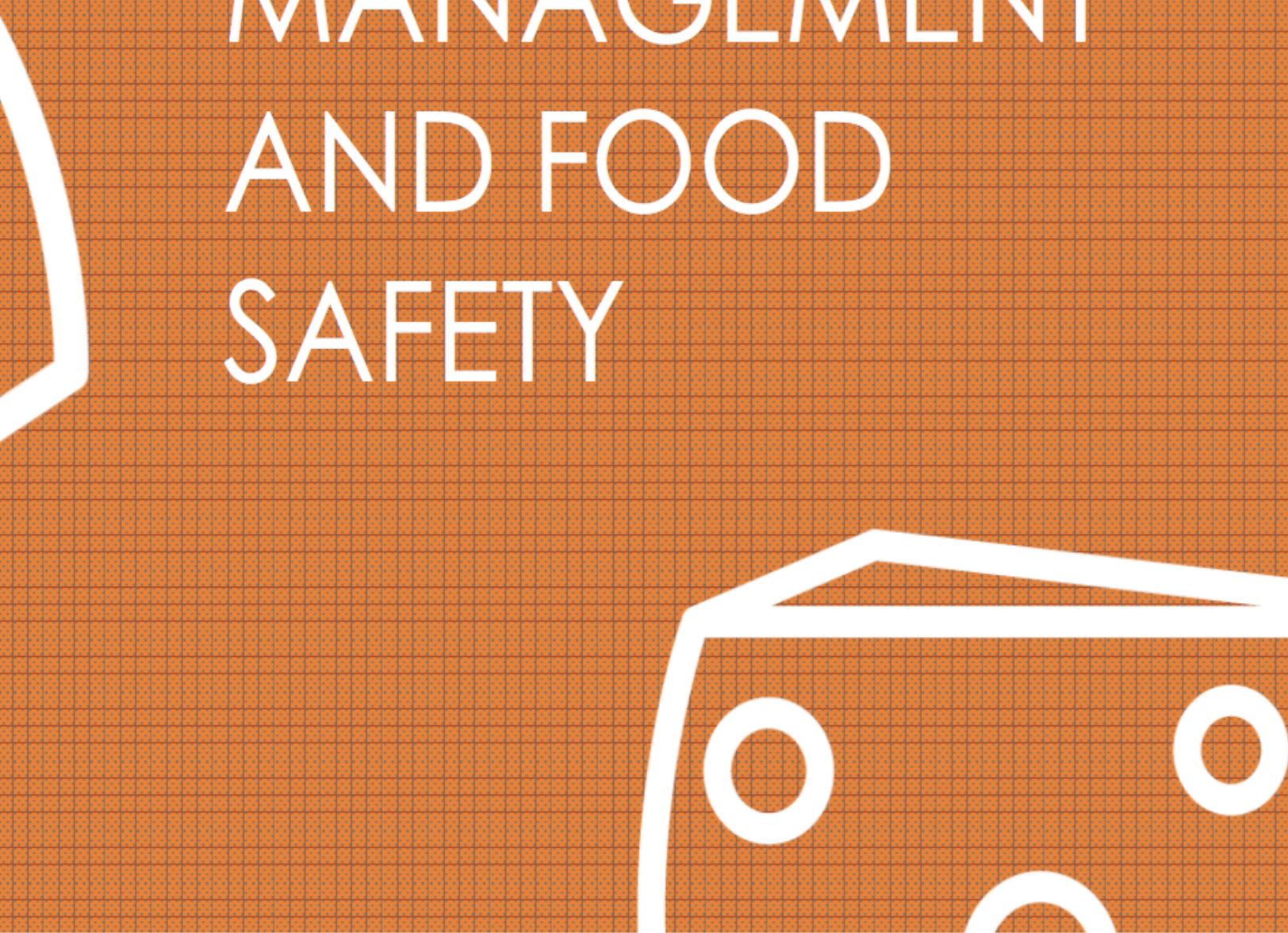
“policies recognize the need for a long term commitment to agriculture”

Our food system involves backyard and community gardens, local businesses, and restaurants that sell and serve food, and farmers markets that bring residents, food businesses, and local growers together”

“strongly encourage use of environmentally sound farm management practices”

“the expansion of farm parcels through lot assembly is encouraged wherever possible”

9.0 RISK MANAGEMENT AND FOOD SAFETY



9.0 RISK MANAGEMENT AND FOOD SAFETY

9.1 Findings

The World Health Organization defines food safety as all the actions aimed to ensure that all food is as safe as possible. This includes a focus on food safety across the entire food chain, from production to consumption.²⁶⁵ The World Health Organization recognizes food safety as an essential public health function due to the major toll that consumption of unsafe food takes on people's health.²⁶⁶ As a result, access to safe and nutritious food is essential to promoting good health and sustaining life.²⁶⁷

In a 2014 report Canada's food safety system was ranked to be one of the best in the world amongst a comparison of 17 Organizations for Economic Co-operation and Development countries (Canada tied for first place with Ireland). Canada was also ranked the highest in public trust in food safety.²⁶⁸ Ontario consumers, in turn, benefit from one of the safest food supplies in the world. The Province of Ontario continues to make protecting Ontario's food supply a priority.²⁶⁹

This section of the environmental scan addresses risk management and food safety; it focuses specifically on food safety risk management plans and food safety risks within the local food system. It aims to identify what food system risk management plans are in place and the food safety risks associated with the local food system.

Emergency Response Plans

In analyzing risk management and food safety within Middlesex-London, emergency response plans are a useful resource to depict whether places prioritize the safety of local food in emergency situations. Emergency response planning is completed by the MLHU and community partners and agencies in order to be prepared should a significant emergency arise. Emergency response plans state how to mitigate and respond to hazards in an emergency situation. Middlesex County reviews their emergency response plan on an annual basis.²⁷⁰ The most recent emergency response plan (revised November 2014) makes no mention of risk to local food during an emergency. Rather, in the event of an emergency or unforeseen event The

²⁶⁵ World Health Organization, "Food Safety," No Date, Web, at http://www.who.int/topics/food_safety/en/

²⁶⁶ World Health Organization, "Food Safety," No Date, Web, at http://www.who.int/topics/food_safety/en/.

²⁶⁷ World Health Organization, Food Safety Fact Sheet, 2014, Web at <http://www.who.int/mediacentre/factsheets/fs399/en/index.html><http://www.who.int/mediacentre/factsheets/fs399/en/>.

²⁶⁸ Canadian Food Inspection Agency, "Canada's Food Safety System Ranked World's Best," 2014, Web, at <http://news.gc.ca/web/article-en.do?nid=906309&tp=1>.

²⁶⁹ Ministry of Agriculture, Food and Rural Affairs, "Food Safety," 2013, Web, at <http://www.omafra.gov.on.ca/english/infores/foodsafe/safety.html>.

²⁷⁰ Middlesex County, "Emergency Management," No Date, Web, at <http://www.middlesex.ca/departments/emergency-services/emergency-management>.

Salvation Army is contracted to provide food to residents.²⁷¹ The lack of planning to protect food safety is consistent with London's emergency response plan as there is no mention of managing any risk posed to local food.²⁷² Upon examining municipal/township emergency response plans within Middlesex County, the following provides a demonstration of the presence of local foods within the plans:²⁷³

- North Middlesex,²⁷⁴ Middlesex Centre,²⁷⁵ Strathroy-Caradoc,²⁷⁶ Thames Centre,²⁷⁷ Southwest Middlesex²⁷⁸ and Lucan Biddulph²⁷⁹ note the Ministry of Agriculture, Food and Rural Affairs as being a useful resource in understanding the effect of hazardous vapours on crops and animals.
- Middlesex Centre,²⁸⁰ Strathroy-Caradoc,²⁸¹ Thames Centre,²⁸² Newbury,²⁸³ Southwest Middlesex²⁸⁴ and Lucan Biddulph²⁸⁵ mention agriculture and food emergencies as one of the most likely emergencies within the area.
- A few municipalities mention someone who is responsible for directing precautions in regards to food or water supplies when warranted²⁸⁶ however, it is not clear whether these precautions pertain to risk posed to local food or risk posed to the food supply more generally.

An analysis of the emergency response plans in place within Middlesex County illustrates that the risks to the local food system are not being mitigated in the event of an emergency or unforeseen event. This illustrates a lack of preparedness for implementing local food safety measures. This poses a significant risk to the food system itself, as well as the health and nutrition of residents, as access to healthy and nutritious food may no longer be possible after the initial threat of an emergency has passed.

²⁷¹ Middlesex County, Middlesex County Emergency Response Plan, 2014, Print, at p.30.

²⁷² City of London, City of London Emergency Response Plan, 2014, Print, at pp.1-45.

²⁷³ The emergency response plan for Southwest Middlesex was not included in this analysis.

²⁷⁴ Municipality of North Middlesex, Municipality of North Middlesex Emergency Response Plan, 2011, Print.

²⁷⁵ Municipality of Middlesex Centre, Municipality of Middlesex Centre Emergency Response Plan, 2012, Print.

²⁷⁶ Municipality of Strathroy-Caradoc, Municipality of Strathroy-Caradoc Emergency Response Plan, 2013, Print.

²⁷⁷ Municipality of Thames Centre, Municipality of Thames Centre Emergency Response Plan, 2010, Print.

²⁷⁸ Municipality of Southwest Middlesex, Municipality of Southwest Middlesex Emergency Response Plan, 2008, Print.

²⁷⁹ Township of Lucan Biddulph, Township of Lucan Biddulph Emergency Response Plan, 2011, Print.

²⁸⁰ Municipality of Middlesex Centre, Municipality of Middlesex Centre Emergency Response Plan, 2012, Print.

²⁸¹ Municipality of Strathroy-Caradoc, Municipality of Strathroy-Caradoc Emergency Response Plan, 2013, Print.

²⁸² Municipality of Thames Centre, Municipality of Thames Centre Emergency Response Plan, 2010, Print.

²⁸³ Village of Newbury, Village of Newbury Emergency Response Plan, 2008, Print.

²⁸⁴ Municipality of Southwest Middlesex, Municipality of Southwest Middlesex Emergency Response Plan, 2008, Print.

²⁸⁵ Township of Lucan Biddulph, Township of Lucan Biddulph Emergency Response Plan, 2011, Print.

²⁸⁶ Township of Lucan Biddulph, Township of Lucan Biddulph Emergency Response Plan, 2011, Print.

Emergency Food Programs

In the case of an emergency or unforeseen event, individuals may access emergency food programs in order to meet their basic need for food. Within the City of London, there are a number of emergency food programs including 35 meal program locations (33 individual meal programs) and 24 food bank locations (17 individual food bank programs).²⁸⁷ In Middlesex County (excluding London) this number is much smaller and encompasses a total of four food bank locations and four meal programs. In addition to these programs, several churches, community organizations, and community centres have food cupboards where they store food to donate to people in need.

While there are a number of opportunities available to residents, it is important to keep in mind that community emergency food programs are not able to feed all community members whenever they are hungry; in Ontario, food banks are visited by approximately

375,000 people every month (many of these organizations rely on donated food and dedicated volunteers to operate).²⁸⁸ Community emergency food programs are structured to feed people who experience their own personal emergencies that result in them being unable to feed themselves, and are not equipped to feed mass amounts of community members in cases of major crisis (e.g. a natural disaster).

Table 41: Emergency Food Programs in Middlesex-London (Source: Information London, *Help Yourself Through Hard Times Report*)

Geographical Area	Number of Emergency Food Programs
City of London	35 meal program locations; 24 food bank locations
Middlesex County	4 food bank locations

While London has numerous meal programs and food bank locations, one must also consider their effectiveness in meeting the needs of their target clientele on a day-to-day basis. One way of determining the effectiveness of emergency food programs is by their accessibility for the populations they serve. In London, all food bank locations are only available during specific hours of the day and limit the number of times individuals can pick up food items.²⁸⁹ For example, central food banks in London provide food items on an emergency basis, usually a one to three day supply, and are available for pick up once a month to once every three months. So while emergency food programs are available, the frequency by which individuals can participate in the programs is severely limited. It is also notable that only two of the 24 food bank locations are open on the weekends. With the exception of one food bank, there are no food bank locations that are open past 4:00pm on the weekdays. The exception, Youth

²⁸⁷ Information London, "Help Yourself Through Hard Times: Basic Needs Services for London and Middlesex County," 2014, Print.

²⁸⁸ Ontario Association of Food Banks, *Hunger Report 2014 Going Hungry to Pay the Bills: The Root Causes Behind the Pervasive Cycle of Hunger in Ontario*, 2014, Print, at p.3.

²⁸⁹ Information London, *Help Yourself Through Hard Times: Basic Needs Services for London and Middlesex County*, 2014, Print, at pp.6-12.

Opportunities Unlimited, only offers food to youth ages 16-24 years old.²⁹⁰ These operational hours impact people particularly who work 9:00am-5:00pm jobs from Monday to Friday as they would have very limited ability to access food banks. In order to gain access to emergency food they would need to take time off work, which, in many cases, may not be a realistic option.

There is the assumption that people who have full-time employment do not need to access emergency food through meal programs or food banks because they have an income that enables them to purchase all the food they need to consume. However, the Nutritious Food Basket in Middlesex-London shows that the weekly food costs for a family of four take up 29% of the income of a minimum wage earner (which is then accompanied by the costs of rent (40% of income), utilities and other weekly expenses).²⁹¹ For most people, it is not the cost of food that is the issue but rather that their income is too low. The Nutritious Food Basket annual survey has repeatedly shown that in Middlesex-London, people with low incomes cannot afford to eat healthy, after meeting essential needs for basic living.²⁹² This is problematic as people earning low incomes are not able to afford healthy food, which increases the risk of chronic and diet-related diseases such as diabetes, heart disease and cancer.²⁹³

In regards to meal programs in London, each organization that provides breakfast programs offers them once a month and typically on Saturdays.²⁹⁴ Sisters of St. Joseph Hospitality Centre and The Youth Action Centre (for youth 16-24 years) offer breakfast programs Monday to Friday. Lunch and dinner programs in London are offered on a more regular basis (i.e. more times per week) when compared to breakfast programs.²⁹⁵

For an individual or family seeking food banks and emergency program locations on a regular basis, it would be difficult to navigate the dates and times they can access the different services. To assist in this process, Information London produces a monthly meal calendar which highlights the days and times services are available (the calendar is a project of Hunger Relief Action Coalition).²⁹⁶

²⁹⁰ Information London, *Help Yourself Though Hard Times: Basic Needs Services for London and Middlesex County*, 2014, Print, at pp.6-12.

²⁹¹ Middlesex-London Health Unit, "The Weekly Cost of the Nutritious Food Basket London and Middlesex County," 2012, Print, at p.4.

²⁹² Middlesex-London Health Unit, "2014 Nutritious Food Basket Survey Results and Implications for Government Public Policy," 2014, Print.

²⁹³ Middlesex-London Health Unit, *The Cost of Healthy Eating*, 2014, Web, at <https://www.healthunit.com/cost-of-healthy-eating>

²⁹⁴ Information London, *Help Yourself Though Hard Times: Basic Needs Services for London and Middlesex County*, 2014, Print, at pp.8-10.

²⁹⁵ Information London, *Help Yourself Though Hard Times: Basic Needs Services for London and Middlesex County*, 2014, Print, at pp.8-10.

²⁹⁶ Information London, "Meal Calendar" and "Food Banks," February 2016, Web, at <http://info.london.on.ca/meal.asp>.

While Middlesex has significantly fewer food banks available when compared to London, when considered individually they are much more accessible in terms of their operating hours. In particular, Ailsa Craig and Area Food Bank is open six days a week from 10:00am to 5:00pm. Additionally, Women's Rural Resource Centre of Strathroy and Area specifies that non-perishable food items and produce are available when needed (rather than limiting access to once a month to once every three months).²⁹⁷

Risk Management

Risk management in regards to food safety not only focuses on ensuring people have access to food but that the food they access is safe. As mentioned, Canada and the Province of Ontario, take several precautions to limit risks to food safety. This has led to the impression from Canadians that food produced in Canada is of good or excellent quality (85% of participants) and just over half (56%) are very or completely confident in the safety of Canadian food products.²⁹⁸ The Consumer Perceptions of Food survey also found perceptions of food safety was influenced by province and education level. More specifically, residents of Ontario (65%) are very/completely confident in the safety of Canadian food. Canadian with a lower education level, specifically a high school degree, (60%) were statistically more likely to rate their confidence in Canadian food safety as very or completely confident compared to those with a higher education.²⁹⁹ The authors of the study do not draw any conclusions as to why Ontarians and Canadians with lower education are more likely to be confident in the safety of Canadian food.

Despite Ontario's commitment to food safety, risks to food safety do occur. Food can become contaminated during "growing, harvesting, processing, shipping, storing or handling" and can therefore, never be risk-free.³⁰⁰ The Public Health Agency of Canada estimates that approximately one in eight Canadians (or four million people) become sick from domestically acquired foodborne diseases each year.³⁰¹ Specific populations of people are more vulnerable to health risks that stem from unsafe food; these include infants, young children, pregnant women, seniors and those with underlying illnesses.³⁰²

The Canadian Food Inspection Agency's (CFIA) research strategy focuses on three priorities, namely food safety, animal health and plant production, in order to mitigate the health risks

²⁹⁷ Information London, Help Yourself Though Hard Times: Basic Needs Services for London and Middlesex County, 2014, Print, at pp.43-44.

²⁹⁸ Agriculture and Agri-Food Canada, *Consumer Perceptions of Food, Wave 4*. 2014, Print, at p.10.

²⁹⁹ Agriculture and Agri-Food Canada, *Consumer Perceptions of Food, Wave 4*. 2014, Print, at p.10.

³⁰⁰ Canadian Food Inspection Agency, *Safe Food Canada - The Learning Partnership*, 2015, Web, at <http://www.inspection.gc.ca/about-the-cfia/transforming-the-cfia/action-plan/learning-partnership/eng/1435618870031/1435618978540>.

³⁰¹ Public Health Agency of Canada, "Estimates of Food-borne Illness in Canada," January 14, 2014, Web, at <http://healthycanadians.gc.ca/eating-nutrition/risks-recalls-rappels-risques/surveillance/illness-estimates-estimations-maladies/yearly-annuel-eng.php>

³⁰² World Health Organization, *Food Safety Fact Sheet*, 2014, Web, at <http://www.who.int/mediacentre/factsheets/fs399/en/>.

that unsafe food poses. In regards to food safety, the CFIA predicts regulatory needs and assesses new means of early intervention.³⁰³ Part of their responsibility includes issuing food recalls for food products when there is reason to believe that food has been contaminated or does not follow federal regulations.³⁰⁴ On a national level, CFIA conducts 3 000 food safety inspections each year. On average 350 unsafe food products are removed from store shelves through recalls each year.³⁰⁵

The CFIA implements food recalls and allergy alerts on a national, provincial, and regional level. For some food safety risks, the CFIA is able to track the risk to food safety to a particular food retailer. A search of high-risk food recalls and allergy alerts in London, Ontario found two significant health hazard alerts directly related to the London area from 2011-2015. These include:³⁰⁶

- Raw shelled walnuts sold from certain retail stores in London, Ontario may contain E. coli o157:h7 bacteria (issued April 2011). This recall affected three products within one food mart.³⁰⁷
- Fresh-shelled peas sold from a specific farm market may have contained listeria monocytogenes (issued July 2012).³⁰⁸

The Canadian Food Inspection Agency has not issued any food recalls and allergy alerts specific to any of the eight municipalities of Middlesex County.

Based on the low frequency of high-risk food recalls within Middlesex County it appears that food safety is being managed well. However, province wide recalls on food products do not provide an indication on how many food products and number of units are removed from store shelves within Middlesex County. So while there are few food recalls specific to Middlesex County, Middlesex, like all other areas in the province, is still affected by province wide food

³⁰³ Standing Senate Committee on Agriculture and Forestry, "Innovation in Agriculture: The Key to Feeding A Growing Population," 2014, Print.

³⁰⁴ Canadian Food Inspection Agency, *The Canadian Food Safety System: Food Recalls*, 2014, Web, at <http://www.inspection.gc.ca/about-the-cfia/newsroom/food-safety-system/food-recalls/eng/1332206599275/1332207914673>.

³⁰⁵ Canadian Food Inspection Agency, *Safe Food Canada - The Learning Partnership*, 2015, Web, at <http://www.inspection.gc.ca/about-the-cfia/transforming-the-cfia/action-plan/learning-partnership/eng/1435618870031/1435618978540>.

³⁰⁶ This analysis does not include food recalls that were issued on a Provincial level. It is possible that province wide recalls did affect Middlesex County however it is not possible to investigate this based on the public data available.

³⁰⁷ Canadian Food Inspection Agency, "Health Hazard Alert - Raw Shelled Walnuts Sold From Certain Retail Stores in London, Ontario and Calgary, Alberta May Contain E. coli O157: H7 Bacteria," 2011, Web, at <http://www.inspection.gc.ca/about-the-cfia/newsroom/food-recall-warnings/complete-listing/2011-04-11b/eng/1359548339785/1359548339801>.

³⁰⁸ Canadian Food Inspection Agency, "Health Hazard Alert - Certain FRESH SHELLLED PEAS Sold From Thomas Bros. Farm Market, 5856 Colonel Talbot Rd, London, Ontario may contain LISTERIA MONOCYTOGENES" 2012, Web at <http://www.inspection.gc.ca/about-the-cfia/newsroom/food-recall-warnings/complete-listing/2012-07-06/eng/1355956871805/1355956871821>.

recalls because most products that are recalled have wide distribution (although the extent of this effect is not known at this point).

County health units also track events pertaining to food safety, particularly in regards to number of suspected and confirmed food borne illnesses. The Middlesex-London Health Unit, over the last five years, has seen fluctuation in the number of suspected food borne illnesses that are called in.³⁰⁹ Between 2010 and 2015, 2014 and 2012 saw the highest number of suspected food borne illnesses with 177 and 166 suspected illnesses respectively.³¹⁰ Food borne illnesses, commonly referred to as food poisoning, is a sickness that can happen when someone consumes food that is contaminated with germs or chemicals.³¹¹ These types of illnesses are common and serious, but are not a major health concern. Public Health Ontario estimates that about 100,000 cases of foodborne illnesses occur every year, of which approximately 4% are reported.³¹²

The number of suspected food borne illnesses is shown in Table 42; however, it is important to note that these numbers do not reflect the number of confirmed food borne illnesses. The difference between the two is that food borne illnesses are confirmed through detection in samples submitted to a lab whereas suspected food borne illnesses are not lab confirmed but can be still be a food borne illness, thereby potentially shedding light on unsafe practices. Suspected food borne illnesses are calls that are made to the MLHU for investigation purposes and the MLHU has a process in place for responding and risk assessing all calls related to suspect food borne illnesses. Therefore, many of the suspected food borne illnesses are not a result of unsafe food within the local food system but can be attributed to travel outside the Middlesex-London area and outside the country, environmental exposure, or other sources.³¹³

Table 42: Suspected Food Borne Illnesses in Middlesex-London (Source: Middlesex-London Health Unit, 2015)

Year	Number of Suspected Food Borne Illnesses
2015 (as of the end of July)	93
2014	177
2013	122
2012	166
2011	118

Risk to food safety is also assessed through food safety inspections of food premises. During food safety inspections, Public Health inspectors assess the food premises' compliance with food safety laws (i.e. Ontario Food Premises Regulation (R.R.O. 1990. Reg. 562 and 568)).³¹⁴

³⁰⁹ Middlesex-London Health Unit, Manager, Environmental Health, 2015.

³¹⁰ Middlesex-London Health Unit, Manager, Environmental Health, 2015.

³¹¹ Middlesex-London Health Unit, "Foodborne Illness," 2015, Web, at <https://www.healthunit.com/foodborne-illness>

³¹² Public Health Ontario, "Foodborne Illness: What We Don't Know Can Harm Us," No Date, Print.

³¹³ Middlesex-London Health Unit, Manager, Environmental Health.

³¹⁴ Middlesex-London Health Unit, "Food Safety Inspections," 2015, Web, at <https://www.healthunit.com/food-safety-inspections>.

Food safety inspections are an important component of the effort to reduce the number of food borne illnesses that occur every year. The Middlesex- London Health Unit completes routine inspections to ensure the minimum standards are being met and re-inspects food premises to follow-up on any problems identified in the routine inspection.³¹⁵

All food premises within the province of Ontario are risk assessed based on several criteria that can elevate the risks in acquiring a food borne illness. A standardized tool that incorporates performance and profile is used to assess risk. See Table 43 for the results of food safety inspections within Middlesex County. The level of risk determines how often a food premise is inspected. Those food premises deemed high risk are inspected three times a year, moderate risk premises are inspected twice a year and low risk premises must be inspected once a year. Food safety inspections may also be conducted in response to complaints.

Table 43: Number of low, moderate and high-risk food premises in Middlesex County (Source: Middlesex-London Health Unit, 2015)

Year	Low Risk	Moderate Risk	High Risk
2015 (as of July) ³¹⁶	931	746	554
2014	773	808	641
2013	761	828	637
2012	756	841	601
2011	796	839	581

Establishments deemed as low risk are those where food is rarely or never being handled directly. Moderate risk food premises are typically average-sized restaurants with moderate to high levels of food handling and/or prepare hazardous foods. High-risk food premises can be labeled as high risk for a number of reasons including:

- Food premises serves a high-risk population based on age or medical condition (i.e. kitchen in seniors’ home or a hospital)
- Food premises that prepare hazardous foods (any food capable of supporting the growth of bacteria)
- Food premises with a history of repeated non-compliance
- Food premises with cases of food borne illnesses within the last year
- Food premises where operations involve the handling of large quantities of food^{317 318}

³¹⁵ Middlesex-London Health Unit, “Food Safety Inspections,” 2015, Web, at <https://www.healthunit.com/food-safety-inspections>.

³¹⁶ The number of low, moderate and high risk food premises is subject to change as not all food premises had received their annual risk assessment at the time this report was written.

³¹⁷ Eastern Ontario Health Unit, *Food Establishment Inspection Reports*, No Date, Web, at <http://www.eohu.ca/inspections/index.php?page=fag>.

³¹⁸ Halton Region, “Food Safety Inspections - Information for People Working in Food Services,” No Date, Web, at <http://www.halton.ca/cms/one.aspx?pagelD=11870>.

DineSafe Middlesex-London is a food safety program that provides the public with quick and easy access to the results of food safety inspections. DineSafe stores the results of the ten most recent inspections per each food premise. Current data shows only two locations for which a conditional pass was granted on the premises' last inspection (most recent inspection dates range from July 2014-July 2015 assuming premises are inspected minimally once a year). There were zero food premises that were closed as a result of their most recent food safety inspection. DineSafe shows 1910 food safety passes. It should be noted that there are only a very small number of food premises inspections that are not disclosed through DineSafe, for reasons that address operational processes and logistical consideration. Also, conditional passes would only appear as the most recent inspection for a limited time due to the requirement for a re-inspection shortly thereafter. Furthermore, hazards are mitigated in a timely fashion; therefore, conditional passes and closures are addressed will not appear through a search of the most recent inspections. Therefore, while the majority of food premises in Middlesex-London receive pass signs resulting from their most recent inspection—indicative of substantial compliance with the regulations—infractions or unsafe practices still exist, thereby creating a level of risk. Table 44 below shows the number of food safety inspections completed by the Middlesex-London Health Unit on an annual basis.

Table 44: Number of Food Safety Inspections in Middlesex-London (Source: Middlesex-London Health Unit, 2015)

Year	Number of Food Safety Inspections
2015 (as of July)	1809
2014	3629
2013	3942
2012	3877
2011	3414

In conclusion, there appears to be a lot of work focused on risk management in regards to food safety in Middlesex-London. However, the focus on risk management in regards to food availability, does not seem as strong due to the lack of planning around protecting access to locally produced food in the event of an emergency (as reflected in the emergency plans) and the mostly inaccessible emergency meal programs within London. While emergency plans state how to mitigate and respond to emergency situations, protecting locally produced food is not noted as one of the responses.

9.2 Gaps in Knowledge

While data on the number of food recalls specific to Middlesex-London was retrieved and is relatively small, it is unclear how many provincial level food recalls affected food being sold in Middlesex-London. It is possible that food recalls affect Middlesex-London on a much larger scale than is being seen through area specific recalls. It is imperative that we have a clear picture of food recalls in the region as “Food safety, nutrition and food security are inextricably linked. Unsafe food creates a vicious cycle of disease and malnutrition, particularly affecting

infants, young children, elderly and the sick.”³¹⁹ If one is concerned about food security, they are also concerned with the safety of food of which people do access.

There is also not a clear indication of the number, or how often, local food risk assessments are conducted within Middlesex-London. All that is known is that risk assessment are conducted regularly by a variety of regulators including MLHU, OMAFRA, Canadian Food Inspection Agency, and the Ministry of Environment and Climate Change. Food risk assessments focus on the risks that food, or a lack thereof, can have on the health and well-being of humans. The risk assessment includes a wide range of possible risks including risks associated with microorganisms in food to risks the environment poses to the food supply. Typically included in these risk assessments are the risks themselves, the danger they pose and ways to mitigate the risk.

9.3 Strengths and Assets

Risk management and food safety in Middlesex-London’s food system is not without its strengths. There is a relatively even balance between the number of meal program locations (35) and food bank locations (24) in London, which helps to mitigate the risk of people being without the basic provisions of needed food. In addition to these opportunities, several churches, community centres, and community organizations have food cupboards at their locations so that they can provide food to those in need. In total, residents of London have over 50 opportunities by which they can seek emergency food. Having these opportunities available is especially important given an average lower income in Middlesex-London than the province, but food costs that are relatively the same.

Food safety (through food retail inspections) is well regulated by the Middlesex-London Health Unit with over 3000 inspections per year. The standards in place for maintaining safe food are fairly high in Ontario, which helps to ensure food is safe for consumption.

Of these noted strengths and assets, the majority belong to the social and political asset type.

Table 45 lists all of the strengths and assets identified through the community food assessment process that pertain to this section of the report (please see 1.2 for Asset Legend).

³¹⁹ World Health Organization, “Food safety,” 2015, Web, at <http://www.who.int/mediacentre/factsheets/fs399/en/>.

Table 45: Strengths and Assets within Risk Management and Food Safety

RISK MANAGEMENT AND FOOD SAFETY						
						
107. Large number of meal programs (33), food banks (17) and a good food box program in London						
108. Churches and community centres with food cupboards						
						
109. Food safety regulations (3000 food retail inspections per year)						
110. Numerous emergency food programs (51 programs in total in London)						

9.4 Areas to Cultivate

Throughout the creation of this Community Food Assessment, there were no identified cultivation areas within risk management and food safety by the community. However, in reviewing the emergency plans for the municipalities it becomes evident that there are no appropriate planned safety measures to protect the local food supply in cases of emergency. In times of major crisis, it is important to have food available to feed individuals who may have been displaced from their homes and/or lack access to their usual means of food supply.

9.5 Opportunities for Change

Through the environmental scan, key informant interviews, community survey and the community engagement sessions there was no mention of opportunities to strengthen risk management and food safety within the Middlesex-London food system. Through consultation with local food system stakeholders, there appeared to be a focus solely on food safety, rather than risks that affect the sustainability of a food system as a whole. From this perspective, stakeholders appeared satisfied with Middlesex-London’s current efforts on food safety.

However, when it comes to risk management, Middlesex-London would benefit from a more holistic approach that focuses on food safety and food availability. It is common practice to focus on food safety and as a result the risks associated with food availability garner less attention. This undermines the goal of a sustainable food system. Risk management is much more than compliance with rules and regulations. In order to have a sustainable food system for generations to come, stakeholders and community members need to think about all the risks that influence the availability of safe, nutritious and local food to community members.

9.0 RISK MANAGEMENT

AND FOOD SAFETY

146 suspected

food borne illnesses

~ 716 inspections/year

risk of food premises

low = 773

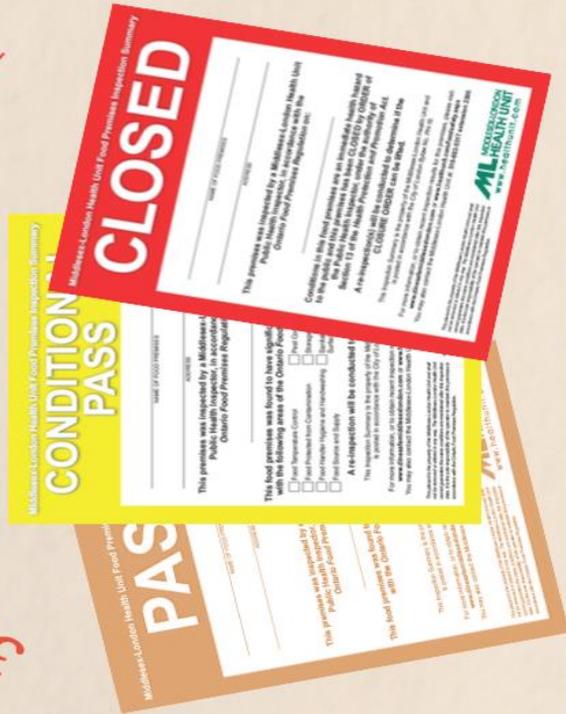
medium = 808

high = 641

1910



FOOD SAFETY PASSES



39 meal program locations

28 food bank locations



10.0 INNOVATION AND TECHNOLOGY



10.0 INNOVATION AND TECHNOLOGY

10.1 Findings

In Ontario, the food system plays a large and important role in the economy; the food system employs more than 767,000 people (11% of the paid labour force).³²⁰ Innovation and technology within the food system is an important component for the food system to continue to have such a powerful influence on the economy as the market transforms and shifts over time. Innovation is defined by Agriculture and Agri-Food Canada as the, "...introduction of new or significantly improved product and/or process which results in more efficient production or higher returns."³²¹ However, efficient production and higher returns through innovation do not necessarily support a sustainable local food system and innovation includes many more benefits than solely profit maximization. Innovation within the food economy can also provide value to the environment and society. There has been a push in the recent years to implement sustainable production practices in order to protect the environment so that a local food system can continue to thrive. As a result, innovation and technology that focuses on sustainable production practices has become increasingly important.

Innovation plays an integral role within the food system as the agriculture and agri-food sector needs to constantly adapt and respond to competitive pressures, global challenges, changing consumer demands and opportunities for long-term sustainability.³²²

This section of the environmental scan focuses on innovation and technology with the aim to:

- Determine the level of innovation within the local food system
- Identify initiatives where technology is being developed and utilized to enhance the local sustainable food system
- Give an overview of innovative programming that addresses or supports a more sustainable food system

As a nation, Canada recognizes the significance of technology and innovation. In 2010 Agriculture and Agri-Food Canada identified seven research priorities as part of their science and innovation strategic plan. These priorities include a focus on:

- 1) The quality and safety of food, security and protection of the food supply,
- 2) Human health,

³²⁰ Econometric Research Limited, Harry Cummings & Associates, and Rob MacRae, *Dollars & Sense: Opportunities to Strengthen Southern Ontario's Food System*, 2015, Print, at p.6.

³²¹ Agriculture and Agri-Food Canada, *An Overview of the Canadian Agriculture and Agri-Food System*, 2015, Web, at <http://www.agr.gc.ca/eng/about-us/publications/economic-publications/alphabetical-listing/an-overview-of-the-canadian-agriculture-and-agri-food-system-2015/?id=1428439111783>.

³²² Agriculture and Agri-Food Canada, *An Overview of the Canadian Agriculture and Agri-Food System*, 2015, Web, at <http://www.agr.gc.ca/eng/about-us/publications/economic-publications/alphabetical-listing/an-overview-of-the-canadian-agriculture-and-agri-food-system-2015/?id=1428439111783>.

- 3) Understanding and developing biological resources,
- 4) Sustainable production,
- 5) Profitability and competitiveness.³²³

Acknowledging the value of innovation and technology has enabled Ontario to become a world leader in food technology research and development, with several research and educational institutions working in this area (e.g. University of Guelph, University of Toronto, Western University, Queen's University).³²⁴ Recognizing that tomorrow's economic growth depends on today's investments, Ontario is investing in an aggressive innovation agenda to ensure it is one of the winning economies in the twenty-first century.³²⁵

Technological innovation is one way that enterprises within the food system can be better supported. Food and Beverage Ontario articulates that there are numerous opportunities for Ontario processors to benefit from commercialization. Centres such as Guelph Food Technology Centre, Toronto Food Business Incubator, Agri-Tech Commercialization Centre and Vineland Research and Innovation Centre make it possible for Ontario processors to bring innovative agri-food products to market through commercialization.³²⁶

Process innovations also show promising benefits as in 2012, process innovations lowered the production cost of food manufacturing enterprises for 62.6% of food manufacturers.³²⁷ While it's clear that the province is prioritizing innovation and technology, it is also beneficial to see what is happening on a more local level within Middlesex-London.

Innovation and Technology Supporting the Local Food System

In Middlesex-London there are some great examples of innovative practices that are currently working to support small to medium agri-food based initiatives and the local food system. Profiled in this section include:

- Winners of the Agri-Food Innovation Excellence Award
- Smart APPetite
- Growing Chefs! Ontario
- On the Move Organics
- Edgar and Joe's

³²³ Standing Senate Committee on Agriculture and Forestry, "Innovation in Agriculture: The Key to Feeding A Growing Population," 2014, Print, at p.16.

³²⁴ Synthesis Agri-Food Consulting, *A Global Hub for Food Processing Agri-Food Asset Map: An Analysis of Ontario's R&D Excellence and Commercialization Capacity in Food Processing*, 2010, Print, at p.9.

³²⁵ Synthesis Agri-Food Consulting, *A Global Hub for Food Processing Agri-Food Asset Map: An Analysis of Ontario's R&D Excellence and Commercialization Capacity in Food Processing*, 2010, Print, at p.9.

³²⁶ Food and Beverage Ontario, *Updated Economic Impact Study of the Ontario Food and Beverage Sector*, 2015, Print.

³²⁷ Agriculture and Agri-Food Canada, *An Overview of the Canadian Agriculture and Agri-Food System*, 2015, Web, at <http://www.agr.gc.ca/eng/about-us/publications/economic-publications/alphabetical-listing/an-overview-of-the-canadian-agriculture-and-agri-food-system-2015/?id=1428439111783>.

- London Training Centre’s Local Food Program
- John Paul the 2nd School Garden Project
- London Gets Local
- Harvest Bucks
- London Food Incubator

Many of the above are social innovations within the Middlesex-London food system. Social innovation³²⁸ in the food movement has taken a firm hold across Canada with many community programs and food enterprises incorporating a strong set of values and a social mission into how they operate.

In Middlesex-London there have been three successful technological innovations focusing on the food system, so successful that the innovations received the Premier’s Award for Agri-Food Innovation Excellence (since 2011).³²⁹ These three ideas are highlighted in the textbox below.

The development of SmartAPPetite is an example of a local innovation that helps support small to medium sized agri-food based initiatives. The app makes it easier for consumers to find and eat healthy local meals by providing information on where locally produced foods can be bought. The app has two main goals: 1) to make it easier for consumers to eat healthy local meals by improving food literacy about and awareness of what food is around the corner in our local communities and 2) highlight the importance of Southwestern Ontario’s food industry to the local economy and support its role as a local economic development tool.³³⁰

Growing Chefs! is an example of a recently developed program that supports the local food system through children’s food education projects. The programming available focuses on teaching children how to cook and better eating habits through learning how food is grown, where it comes from, its name, how our senses can be used with food, the history of different foods and what food means in different cultures. Programming supports a more sustainable food system by incorporating local chefs as hosts, fieldtrips to local farms and farmers’ markets, and cooking with locally produced food.³³¹ Given the limited number of opportunities for children and youth to learn about food in school, expanding this program to new schools across Middlesex-London would aid in efforts to increase food literacy among residents.

³²⁸ A social innovation is defined as “a novel solution to a social problem that is more effective, efficient, sustainable, or just than current solutions. The value created accrues primarily to society rather than to private individuals.” – Stanford University, Centre for Social Innovation. Retrieved from:

<https://www.gsb.stanford.edu/faculty-research/centers-initiatives/csi/defining-social-innovation>

³²⁹ Excerpts are derived from the Premier’s Award for Agri-Food Innovation Excellence, Web, at

http://www.omafra.gov.on.ca/english/premier_award/2011/events/a/gf.htm,

http://www.omafra.gov.on.ca/english/premier_award/2011/events/a/ser.htm, and

http://www.omafra.gov.on.ca/english/premier_award/2014/events/a/bri.htm.

³³⁰ Smart APPetite, “The Project: What is SmartAPP?” No Date, Web, at <http://www.smartappetite.ca/the-project>.

³³¹ Growing Chefs! Ontario, No Date, Web, at <http://growingchefsontario.ca>.

On the Move Organics served as a delivery service of locally produced organic certified food. Residents in London and the surrounding area are able to purchase, on a weekly basis, a box of 100% in season, local food that features fresh produce from small-scale organic farms surrounding London.³³²

Edgar and Joe's Café is another local initiative that supports the local food system. The café makes fresh and local food available, affordable and approachable to people within London's SoHo district, using local food whenever possible. Edgar and Joe's Café employs people experiencing mental health or who are socially disadvantaged, and trains apprentices for the food and hospitality market.³³³

The London Training Centre has developed a Local Food Skills program where participants are introduced to the food industry through a three-week program. Instruction is provided in cooking and service methodologies, steps of service, point of sale systems, beverage alcohol service, food safety, menu planning and design, kitchen equipment, kitchen health and safety, food costs, career and job search strategies, targeted resumes and job leads.

Throughout the program students learn and experience the connection between food and the land, the value of bio-diversity, sustainability and the importance of supporting local producers. Students also learn that buying and eating locally produced food is an investment in their health and the health of our communities. Students are taught the value of eating locally and using the whole animal/food in their cooking. Food for the program is provided by the London Training Centre's one-acre farm located just west of London; 95-98% of the food prepared in this program that is not from the one-acre farm comes from Middlesex County, Elgin County and Oxford County.

John Paul II Catholic Secondary School recently created a school garden, in which they use rainwater harvesting to minimize pollution and the cost of water. Within a city, pavement and buildings shed rainwater, which overwhelms water infrastructure and leads to pollution (because pollution treatment plants can't handle the extra flow of water, sewage can be released into the river). Through rainwater harvesting, the rainwater is harvested into cisterns, which absorbs the heavy rains, leading to less runoff and less pollution.³³⁴ In 2015, John Paul II was awarded the School Community Award by Ophea.³³⁵ This award is presented to a "school or community organization that has demonstrated leadership and excellence in successfully bringing together members of the community (including parents, teachers, boards of education, public health, sport and recreation organizations, community coalitions, local businesses, and municipal governments)."³³⁶ While some schools struggle to create school

³³² On the Move Organics. No Date, Web, at <http://onthemoveorganics.ca>.

³³³ Edgar and Joe's, No Date, Web, at <http://edgarandjoes.ca>.

³³⁴ The London Free Press, "Urban garden at John Paul II Catholic secondary school in London a big hit," 2015, Web, at <http://www.lfpress.com/2015/09/18/urban-garden-at-john-paul-ii-catholic-secondary-school-in-london-a-big-hit>.

³³⁵ Ophea is a not-for-profit that works to support health active living for children and youth in Ontario (see <https://www.ophea.net/> for further information).

³³⁶ Ophea, "Awards & Recognition," 2015, Web, at <https://www.ophea.net/about-us/awards-recognition>.

gardens due to restrictions from their respective school boards, positioning the school garden as an opportunity to be innovative through green infrastructure could help to strengthen their case.

Ham 'n Eggs T, the name of a recently developed urban education farm in London, is another example of innovation within the area. Situated at the intersection of Hamilton Road and Egerton Street, the property cover two-thirds of an acre. The main garden is 1000 square metres, is wheel chair accessible and has seating areas, and features rhubarb and garlic trees. There is also a ten tree orchard and three other gardens on site. A green house is currently on-site and an underground green house will be built in the near future to allow for vegetables to grow year round (Source: Primary Research, Key Informant).

The London Gets Local Facebook page, created and maintained by Natasha Hockley, helps to connect people in the Middlesex-London area to local farmers, local producers/artisans, and local crafters. The purpose of the group is to show people the sustainable alternatives that are available to them, and to help shift shopping habits from large retailers to supporting small local farmers and local businesses. The list of local farmers, producers, artisans, and crafters can be accessed via the Facebook page.

The Child and Youth Network, in partnership with Middlesex-London Health Unit, other community stakeholders and farmers' markets, has created an innovative program, called Harvest Bucks, which helps to connect consumers with fresh, healthy local produce. Harvest Bucks are vouchers that can be used at five farmers' markets within London to purchase fresh vegetables and fruit (please see Section 4.1 for additional detail on Harvest Bucks).³³⁷

Harvest Bucks (2014)

- \$17,738 harvest Bucks distributed; \$13,014 Harvest Bucks redeemed
- 536 London households served
- 93% ate all of most of the vegetables and fruit purchased
- 77% are more vegetables and fruit in general
- 87% intend to buy vegetables and fruit at a farmers' market in the future

Source: Middlesex-London Health Unit, <https://www.healthunit.com/harvest-bucks>

Another innovative idea being considered in the area is currently referred to as the London Food Incubator. David Cook, owner of Fire Roasted Coffee, has secured a space to offer space and support for small and medium-sized start-ups in the local food industry in London's Old East Village. The idea is that small businesses can start in the Western Fair District, further

³³⁷ Middlesex-London Health Unit, "Harvest Bucks," 2015, Web, at <https://www.healthunit.com/harvest-bucks>.

develop their product and get a customer base started, and when they're ready to scale up they can move into the food incubator and communally produce their product at this location.³³⁸ Within this space, an area has been designated to a grocery store that will employ people with disabilities. The store is a joint project of ATN Access and Pathways Skills Development, two local agencies that help to connect people with disabilities to employment. The store will offer a full product line of groceries.³³⁹ The vision for the space is an open-concept retail production facility. Small businesses will be producing their product, selling it on-site and also producing for wholesale distribution. The plan is to have a full-service café and restaurant, the grocery store as mentioned, and a large storefront patio.³⁴⁰

10.2 Gaps in Knowledge

Agri-Food Innovation Excellence (2011): Glenwillow Farms - Strathroy

At Glenwillow Farms, the fertilizer that had been used for years on corn was not as readily available, so an alternative had to be found. The only alternative at the time required expensive machinery. Several major alterations were made to a corn planter, including widening the frame, altering the hydraulic system, and making the storage boxes bigger. As a result, the farm's corn yield is better and the new fertilizer is more environmentally friendly.

Agri-Food Innovation Excellence (2011): S. Eric Richter - London

Ontario has bred the Black Pearl, Canada's first locally adapted black soybean line after 13 years of development. The soybean is unique because of the antioxidant properties found within its seed coat, making it highly desirable as a functional food. It can be used in powdered form as a food additive or in the production of soy-based food products, such as soy sauce and soymilk. Ontario's Black Pearl is poised to meet the demand of global companies who are looking to diversify their supply sources and secure higher quality product. These "pearls" have the potential to add an additional \$20 million in export market value for the province's soybean industry.

Agri-Food Innovation Excellence (2014): Bosco and Roxy's Inc. - London

Bosco and Roxy's produces premium dog treats. Their hand-decorated gourmet cookies, bones stuffed with "German Shepherd Pie" and frozen yogurt cones are popular with pet owners and their pets. Between 2012-2013 sales of the products doubled at \$1.3 million. Retailers such as Bed, Bath and Beyond, PetSmart, Pet Valu and Global Pet Foods have taken notice, indicating that numbers may double in 2014. Bosco and Roxy's Inc. sources 90% of its ingredients in Ontario; local dairies, grain farmers and a freezer manufacturer are also benefiting from this innovation.

(Source: Ministry of Agriculture, Food and Rural Affairs, "Premier's Award for Agri-Food Innovation Excellence," 2016, http://www.omafra.gov.on.ca/english/premier_award).

³³⁸ Chris Montanini, "Fire Roasted Coffee attempting a (larger) local food hub in Old East Village," *Londoner*, 2015, Web, at <http://www.thelondoner.ca/2015/08/14/fire-roasted-coffee-attempting-a-larger-local-food-hub-in-old-east-village>.

³³⁹ Hank Daniszewski, "Grocery store planned for Old East Village will train disabled staff," *The London Free Press*, 2015, Web, at <http://www.lfpress.com/2015/08/14/store-will-sell-food-train-disabled-staff>.

³⁴⁰ Christopher Clark, "Questions: David Cook Foodservices Entrepreneur," *Business London*, 2015, Web, at http://www.myvirtualpaper.com/doc/Business-London-Magazine/bl_october_2015/2015093001/?referrer=http%3A//businesslondon.ca/sitepages/#34.

While there are no identified gaps within innovation and technology, the information on this topic was located according to examples of innovation that address food system gaps, support agri-food based small-to-medium sized enterprises, and support a more sustainable food system. As such, there are likely other examples of innovative and technology in Middlesex-London that influence or impact food system activity.

10.3 Strengths and Assets

Innovation and Technology strengths and assets within Middlesex-London fit within six of the seven asset categories, illustrating a well-rounded approach to innovation and technology within the local area. This part of the food system in Middlesex-London has a focus on the application of innovation and technology, and a smaller focus on developing innovation and technology within the food system. As such, opportunities exist to work with academic institutions within Middlesex-London to engage in efforts to develop technology that would strengthen the local food system. Innovative programs/initiatives within Middlesex-London include Growing Chefs!, John Paul II Catholic Secondary School’s school garden, the London Food Incubator, a social enterprise grocery store, the Local Food Skills program, On the Move Organics, Edgar and Joe’s social enterprise café, the Harvest Bucks program, and the London Gets Local Facebook group. Middlesex-London residents have also won three Premier’s Awards for Agri-food Innovation Excellence in the last three years as well as, developed the SmartAPPetite app. Each of these assets creates a wealth of opportunities to strengthen the local food system. For example, Growing Chefs! and John Paul II’s school garden can increase food literacy amongst children; Edgar and Joe’s creates entry level food jobs and further training for higher level jobs within the food system and also supports local farmers by procuring and selling local food; and the Harvest Bucks program and London Gets Local Facebook group supports the purchasing of locally produced food.

Table 46 lists the strengths and assets that pertain to this section of the report and were identified through the community food assessment process (please see 1.2 for Asset Legend).

Table 46: Strengths and Assets within Innovation and Technology

INNOVATION AND TECHNOLOGY						
						
111. London Community Resource Centre						
						
112. Growing Chefs! London, Ontario						
						

INNOVATION AND TECHNOLOGY

113. Three Premier's Awards for Agri-Food Innovation Excellence

114. Southern Crop Protection and Food Research Centre



115. Edgar and Joe's Café (social enterprise)

116. Smart APPetite (connecting local consumers to local producers and healthy eating information)

117. Social enterprise grocery store to open in Old East Village

118. Increased food entrepreneurship

119. London food incubator



120. School garden at John Paul II with technology implemented for rainwater harvesting

121. Harvest Bucks



122. London Training Centre

123. On the Move Organics (local food delivery)

124. London Gets Local Facebook group

125. Get Fresh, Each Local map

10.4 Areas to Cultivate

Within innovation and technology, two areas to cultivate were identified. Community members noted that due to strict and costly regulations, it is difficult for farmers to add value to their products on site. It was also mentioned that food tracking and traceability is a problem because either it is not being done or when it is, the technology used to accomplish this is not always being applied consistently.

10.5 Opportunities for Change

There was one initiative identified in the Food Processing and Distribution section that related to innovation and technology. In this section, the opportunity to implement regional branding

on food that is grown or raised in Middlesex-London was proposed as a means to improve tracking and traceability in the area. There is also an opportunity to further pursue social innovation within the food system. For example, LondonSOUP is an example of an initiative that is doing things differently; they are getting creative about the ways in which we foster change in the food system. LondonSOUP does this through micro-funding creative projects that promote local, nutritious food and sustainable projects.

LondonSOUP was started by a small group of food enthusiasts with an interest in promoting local, nutritious foods and sustainable projects. LondonSOUP serves as a grassroots micro-funder of creative projects, by having presenters pitch their sustainable project ideas to LondonSOUP patrons, and voting on their favourite sustainable project. Through LondonSOUP presenters are able to meet, inform, persuade, discuss, collaborate, test-market, and compete for funding to support their ideas.

(Source: LondonSOUP, www.londonsoup.ca)

“It is awesome witnessing the growing interest and initiatives in re-localizing our food system.”

- Survey Respondent

10.0 INNOVATION AND TECHNOLOGY

 **\$ 13,014**
 **Harvest Bucks redeemed**

2,600 students
7 schools
400 volunteer hours

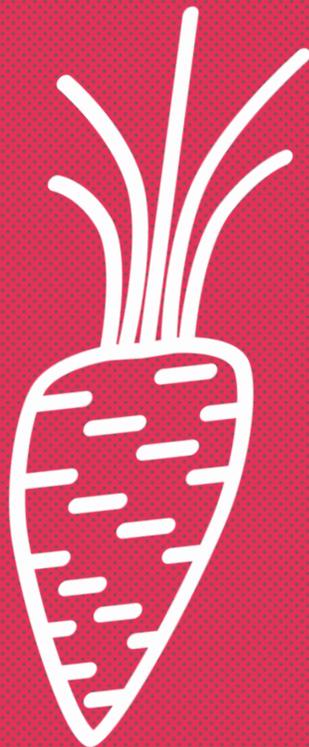
THREE
Premier
Awards for
Agri-Food
Innovation

**John Paul II
Catholic
Secondary
School
awarded
School
Community
Award**

100%
In season, local food delivered by On The Move Organics



11.0 FUNDING, FINANCING AND INVESTMENT



11.0 FUNDING, FINANCING AND INVESTMENT

11.1 Findings

A scan of the food funding and financial landscape in an area can help to shed light on the channels through which food funding is flowing into the area, the total amount of funds being allocated to its local food system, and the types of food projects that funders are prioritize when they allocate funds. This information can be used to assess whether or not the food funding being made available is able to support not only work being done on the ground floor by community-based food initiatives but also the systemic change that needs to take place to transform the local food system. For example, the proportion of dollars invested into an area's local food system may or may not be proportionate to the size and scale of the food system problems faced by community, such as infrastructure in the middle of the supply chain. In addition to illuminating where there are gaps in food funding to an area, the findings can be used to identify opportunities to align food funder and stakeholder perceptions of food system change. This alignment is required for the development of local sustainable and resilient food systems.

The objectives of this section are:

- To provide an overview of the funding available for community-based food system initiatives in Middlesex-London; and
- To provide a broad overview of investment, funding and financing options available to food system business in the area.

The variety of food projects taking place across the province and the diversity of stakeholders involved in these projects exposes just how much local food system activity is taking place. Therefore, this section begins with an introduction to food system project areas, with examples of activities taking place in each area. This helps one to understand the types of projects that exist along the spectrum of food system activity and how these projects are related, both to each other and the available funding. Next, this section reviews the total known dollars being injected into the Middlesex-London food system through grants to food system projects. These dollars, which are identified by project type and/or area, contribute to a broader picture of the food funding and financial landscape in Middlesex-London. This is complemented by a review of the financial options being made available to farms and food businesses in the area; however, the picture is not complete because private investors are not accounted for in the below findings.

Food System Project Areas

Food system projects can take on a variety of different forms, depending on where in the food system a stakeholder is located and the specific types of activities they are engaged in. On the one hand, local growers, producers, aggregators, processors, distributors, and marketers, to

name a few, are all directly involved in the food supply chain and its related value-add activities. On the other hand, organizations working on food security issues, growing awareness around healthy eating choices, and working to increase local food purchases, are all engaged in direct action to change the food system. The below table (Table 47) shows the breadth of food system project areas in Canada, as well as examples of the unique types of activities that are taking place in each of these areas.

Table 47: Food System Project Areas and Examples in Canada

Project Area	Example Activities
Food Marketing	Agriculture and local food tourism
Food Production	Animal, vegetable, vineyards, etc.
Food Processing or Manufacturing	Bakeries, meat processing, etc.
Food Distribution or Storage	Food hubs/aggregation facilities, distribution
Retail Food Outlets	Co-ops, CSAs, farmers markets, restaurants, etc.
Food Access and Nutrition	Food banks, community gardens, meal programs, transition towns
Education	Continuing education, technical education centres, out of school programs, food skills programs, etc.
Health & Nutritional Quality of Food	Food supply quality, children's nutrition, etc.
Workforce Development	Internship, apprenticeship, mentor programs, etc.
Business Planning and Technical Assistance	Access to capital, feasibility and planning, land access, packaging and safety, regulation and permits, human resources, etc.
Energy	Biodiesel, methane digester site, solar, wind, etc.
Institutional Procurement	Hospital purchasing policies, etc.
Regulations and Public Policy	Advocacy organizations, regulation authorities
Innovation & Research	R&D support
Social Enterprise Development	Food system related social enterprises

When compared to the project type and food system areas receiving grant dollars in Middlesex-London, one can better understand which project areas are the focus of funder’s attention at the moment and what types of activities are being prioritized in the area.

Food Funding Landscape

The food funding landscape across Ontario has yet to be mapped out. As a result, there is a limited amount of information available on food funding in specific areas, such as Middlesex-London, which makes it difficult to assess the local food funding state. As an indication of how difficult it is to obtain information on the funds available for food system projects in Middlesex-London, two Access to Information applications—requesting a breakdown of grants allocated to food system projects in the region—were submitted for this section, one with the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) and one with the Community Futures Development Corporation of Middlesex County. While OMAFRA responded to the application

with relevant data, the Community Futures Development Corporation only acknowledged receipt of the information request but did not provide any information for this community food assessment on food funds allocated by them to projects in Middlesex-London.

In the face of limited information on the food funding landscape, two forward-thinking food system groups have been conducting national food funding landscape assessments and provincial financial mobilization scans, respectively. Eco-Ethnomics Inc. has been involved in facilitating both of these important projects to help food system stakeholders gain key knowledge on funder perceptions of food system change and specific information on food funding available to the sector.

The first project was led by the Pan-Canadian Food Funders Collaborative, “an informal group of Canadian funders mobilizing to build a more sustainable, resilient and equitable food system for the future.”³⁴¹ This project involved assessing Canada’s food funding landscape to identify which food system areas funders are supporting and the degree of support, as well as if there is potential to align their work to achieve greater impact. Community Foundations of Canada, the national network for Canada’s 191 community foundations, can be contacted for more information on this project.

The second project, which is currently underway, is the result of a partnership between Sustain Ontario and FoodShare Toronto, “a province-wide cross sectoral alliance that promotes food and farming” and “a non-profit organization that works with communities and schools to deliver healthy food and food education,” respectively.³⁴² This collaborative project involves both a financial mobilization scan of the local food funding landscape in Ontario and a collective impact mapping to align the unique perspectives and activities of food system funders and grantees towards creating greater and measurable impacts across the sector. The results of this work, which will include evaluation resources and tools, will be invaluable to local food organizations and food funders alike, working to create food system change across the Province. Either Sustain Ontario or FoodShare Toronto can be contacted for more information on this project.

Food Funding

Table 48 shows the funds allocated to food system projects in Middlesex-London by OMAFRA, from October 2013 to August 2015. Projects range in both size and scope, from small business planning projects to large business monitoring and logistics projects. This difference is reflected in the provincial share amounts allocated to projects, which ranges from \$1,190.00 to \$183,252.13. The total amount of funds allocated to 19 projects is \$1,198,272.97 and the average funding allocated to a project is \$63,066.99, which is close to the median, \$71,516.90.

³⁴¹ Community Foundations of Canada, “Food,” 2016, Web, at <http://communityfoundations.ca/our-work/food/>.

³⁴² Sustain Ontario, “About Sustain Ontario,” 2010, Web, at <http://sustainontario.com/about/about>; FoodShare Toronto, “About,” 2015, Web, at <http://foodshare.net/about/>.

“We need more funding and resources for food education projects and food educators.”

- Survey Respondent

Table 48: Food System Funding by Type of Project, from October 2013-August 2015, by the Ontario Ministry of Agriculture, Food and Rural Affairs (Source: Ontario Ministry of Agriculture, Food and Rural Affairs, 2015)

Project Title	Project Type	Provincial Share Amount (\$)	Description
Food Grade Soybean De-hulling System for the Export Tempeh Market	Market Development	75,000.00	The Recipient will receive up to \$75,000 for a soybean de-huller that will allow access to new and emerging markets by providing a new product.
Everspring Farms Ltd. GF2 Processors (Capacity) Project	Business and Leadership Development	4,197.50	The company will complete drawing and determine inspection costs for the new facility.
Labatt Breweries of Canada – London Brewery GF2C Processors (Capacity) Project	Environmental and Climate Change	29,700.00	The company will complete an environment and infrastructure energy audit.
Petit Paris Creperie and Patisserie GF2C Processors (Capacity) Project	Business and Leadership Development	1,190.00	The company will complete a capacity and risk mitigation assessment and plan.
Toboggan Brewing Company Ltd. GF2C Processors (Capacity) Project	Business and Leadership Development	6,684.50	This project will support process development, market development, recipe development, business strategy and marketing of the brand in order to make the brewery a food and beverage attraction.
File #GF21-000910 Single Serve Cookie Market	Labour Productivity Enhancement	8,400.00.	The company will purchase a conveyor belt washer, single-serve packaging machine and an inline check weighed to maximize labour productivity and reduce water usage.
File #GF21-001061 Continuous	Labour Productivity	52,045.00	The project will expand the sausage production line to

Project Title	Project Type	Provincial Share Amount (\$)	Description
Vacuum Filling Machine	Enhancement		improve manufacturing efficiency by investing in a continuous vacuum-filling machine.
File #GF21-001242 Enhancing the Breadcrumb Traceability System (Food Safety and Operational Efficiencies)	Assurance Systems	97,343.75	The company will further enhance the current traceability system.
File #GF21-001473 Labour Productivity Enhancement-Building Capacity	Labour Productivity Enhancement	81,878.00	The company will improve labour productivity in two areas of daily operations, which includes semi-automation of frozen packaging systems and staff training on the operation of the automated lines.
File #GF21-001473 Food Grade Soybean De-huller and By-product Pelletizer	Market Development	61,807.55	The company will add a soybean de-huller and a by-products pelletizer into production.
Labatt London Cooling Tower Installation	Environment and Climate Change	80,194.45	The company will improve process for water-cooling related to the refrigeration system, which will include design of the system, purchasing a cooling tower unit, rigging and installation, and programming.
Labatt London Glycol Chiller Upgrade	Environment and Climate Change	71,516.90	The objective of this project is to decrease energy consumption of the ammonia chilling system by making the glycol plate and frame chiller more efficient. In addition, energy efficient valves will be upgraded on the chillers.
File #GF21-006978 Steam Flaking Process	Market Development	100,000.00	The project will purchase and install equipment and make site modifications necessary to facilitate the introduction of a steam flaking process for grains

Project Title	Project Type	Provincial Share Amount (\$)	Description
			into it's operations
Project Crossroads	Labour Market Productivity	117,647.06	This project upgrades and expands four existing lines and moves an important high-capacity line from the US to London, ON.
ERP and Reefer Monitoring System Implementation	Labour Market Productivity	183,252.13	The company will implement Microsoft Dynamics NAV LinkFresh Enterprise Resource Planning system to address labour productivity and inventory traceability challenges. The company will be adopting the Inventory Control, Warehouse Management, and Manufacturing modules, as well as an iBright refrigerator monitoring system.
Acquisition of P12 Coffee Roaster to increase labour productivity and profitability	Labour Market Productivity	21,666.13	The project is to purchase and install a new roaster, grinder, weight scale and sealer.
Labatt London Brewery Air Dryer Upgrade	Environment and Climate Change	77,000.00	The company will replace its current compressed air dryer, as it does not consistently supply the quality of air, which is required in the production of beer. The proposed solution is a properly sized, energy efficient compressed air dryer. This will eliminate the risk of insufficient air, remove 44 kWh, and allow efficient air compression.
New Innovative Equipment	Labour Productivity Enhancement	100,000.00	The company will purchase and install a new mixer, swing loader, buggy washer and quick-cooling tunnel that will improve process efficiency and labour productivity.
North Middlesex Economic Development	Planning – Development Plans/Strategies	28,750.00	The municipality will develop an Economic Development Strategy to provide guidance to the

Project Title	Project Type	Provincial Share Amount (\$)	Description
Strategy			municipality and set out directions and key priorities for programming.
Total		\$1,198,272.97	

First, it is important to note here that at least 10 of the above projects are funded through a multilevel government initiative entitled Growing Forward 2 (GF2). GF2 is a federal-provincial initiative that encourages innovation, competitiveness and market development in Canada's agri-food and agri-products sector. In Ontario, the initiative offers cost-share funding assistance to producers, processors, organizations and collaborations.³⁴³ While small business leadership and development projects have received funding through GF2—like the Petit Paris Creperie and Patisserie’s capacity and risk mitigation assessment and plan—the cost-share component of the GF2 funding initiative can help to explain why there is a lack of small businesses receiving GF2 funding. In short, small agri-food businesses may experience greater difficulty in mobilizing the funds necessary to match GF2 dollars, and this puts them at a disadvantage when competing against larger agri-food businesses that can easily rationalize cost-sharing programs as great for returns.

Second, all but 3 of the projects funded by OMAFRA involve building capacity and increasing efficiencies in the food processing industry. In other words, the majority of funding allocated to food system projects in Middlesex-London is to purchase hard and soft infrastructure towards increasing the amount and quality of food being processed by businesses in the area. Market development is another key priority for OMAFRA. Two significant examples that relate to market development include: The Food Grade Soybean De-Hulling System for the Export Tempeh Market and the Steam Flaking Process project. Also worth noting here is that a significant amount of funds (\$564,888.32) was allocated to labour productivity enhancement projects that involved the purchasing of equipment to maximize labour productivity.

Finally, of the total \$1,198,272.97 allocated to Middlesex-London food projects, \$258,411.35 (21.2%) went to Labatt Breweries of Canada while only \$6,684.50 went to a small business in the same industry, Toboggan Brewing Company. In consideration of the food system project areas introduced above, it can be concluded that OMAFRA dollars are closely tied to hard costs associated with food processing and manufacturing in Middlesex-London.

Additional Provincial Food Funding

In addition to OMAFRA, the Greenbelt Fund supports food system projects across the province. The Greenbelt Fund is a non-profit with a mission “to permanently increase the amount of local

³⁴³ Ontario Ministry of Agriculture, Food and Rural Affairs, “Growing Forward 2 – Helping You Reach Your Goals,” 2015, Web, at <http://www.omafra.gov.on.ca/english/about/growingforward/gf2-index.htm>.

food we consume in Ontario. With leading-edge grants, outreach and education, thoughtful policy, and networking initiatives, [they] seek to create sustained and systemic change to the food system.”³⁴⁴ Table 49 shows the types of food system projects that the Greenbelt Fund has supported from 2010-2014, including how many total grants were allocated in Middlesex-London compared to the province, and the total value (\$) of these grants.

Table 49: Type, Number and Value, of Grants Allocated by the Greenbelt Fund to Food System Projects in Middlesex County, from 2010-2014.

Source	Food System Project Type	Year	No. in Ontario	Total Amount \$	No. in Middlesex-London	Total Amount \$
Greenbelt Fund	Market Access	2014	3	70,455	0	0
	Broader Public Sector	2014	3	100,000	0	0
Total Number and Value of Grants 2014			6	170,455	0	0
Greenbelt Fund	Market Access	2013	17	1,842,600	0	0
	Broader Public Sector	2013	17	1,254,450	0	0
Total Number and Value of Grants 2013			34	3,097,050	0	0
Greenbelt Fund	Broader Public Sector	2012	17	1,251,471	1	25,325
Total Number and Value of Grants 2012			17	1,251,471	1	25,325
Greenbelt Fund	Broader Public Sector	2011	25	2,101,998	0	0
Total Number and Value of Grants 2011			25	2,101,998	0	0
Greenbelt Fund	Broader Public Sector	2010	11	1,739,656	0	0
Total Number and Value of Grants 2010			11	1,739,656	0	0
Grant Total			93	8,360,630	1	25,325

³⁴⁴ Greenbelt Fund, “About the Greenbelt Fund,” 2016, Web, at <http://www.greenbeltfund.ca/about>.

In total, the Greenbelt Fund supported 93 food system projects across the province, allocating \$8,360,630 in grants. Of the total number of grants the Greenbelt made, only 1 supported a project in Middlesex-London, and the value of this grant was \$25,325. While the number and value of grants from the Greenbelt Fund to food system projects in the area has been limited to date, its new Local Food Investment Fund, which includes a local food literacy stream, creates a great funding opportunity for Middlesex-London food system stakeholders.

Other sources of food funding relevant to Middlesex-London include the J.W. McConnell Family Foundation. In 2011, the J.W. McConnell Family Foundation created a Regional Value Chain Program as part of their Sustainable Food Systems Initiative. According to the Foundation, the focus of this program is on "...strengthening the ability of regional producers, processors, distributors, food service providers and retailers to make healthy, sustainably produced food accessible to all Canadians, by whatever means appropriate in individual communities."³⁴⁵ The only known Middlesex-London recipient of a grant from this program is London Training Centre, through the Southwest Economic Alliance; however, the value of this grant is unknown.

Local Food Funding

Local sources of food funding have come from the London Community Foundation, "a charitable organization dedicated to improving communities across London and Middlesex County through collaboration, strategic leadership, and innovative solutions to charitable giving."³⁴⁶ The total number of grants the London Community Foundation has made to food system projects in Middlesex-London in the last couple of year is 4, and the total value of these grants is \$49,900. All grants made were part of the Capital Grant Food Security Program—now the Maple Leaf Community Fund—have been to "support the capital-related needs of food security programs that promote dignity and build individual and community capacity."³⁴⁷ Organizations that have received grants include: Easter Seals Ontario, Camp Woodeden; Youth Opportunities Unlimited in London; Growing Chefs! Ontario; and Investing in Children.

Table 50: Type, Number and Value, of Grants Allocated to Food System Projects in Middlesex County

Source	Food System Project Type	Year	No. in Middlesex-London	Total Amount \$
London Community Foundation	Food Security	2015	2	29,400
Total Number and Value of Grants 2015			2	29,400
London Community Foundation	Food Security	2014	2	20,500
Total Number and Value of Grants 2014			2	20,500
Grand Total			4	49,900

³⁴⁵ J.W. McConnell Family Foundation, "Regional Value Chain Program," 2015, Web, at <http://www.mcconnellfoundation.ca/en/programs/sustainable-food-systems/regional-value-chain-program>.

³⁴⁶ London Community Foundation, "About Us," 2016, Web, at <http://www.lcf.on.ca/about-us>.

³⁴⁷ London Community Foundation, "Maple Leaf Community Fund," 2016, Web, at <http://www.lcf.on.ca/request/capital-grant-food-security>.

Financing and Financial Products

In addition to food system grants, food-specific loans are available to stakeholders along the Middlesex-London food value chain. Three financing bodies and their respective loan programs are worth mentioning here. They include: The Federal Government, the Agricultural Credit Corporation, and Farm Credit Canada.

The Canadian Agriculture Loans Act (CALA) Program, administered by Agriculture and Agri-Food Canada is “a loan guarantee program designed to increase the availability of loans to farmers and agricultural co-operatives.”³⁴⁸ Farmers and agricultural co-operatives can use CALA loans to develop their capacity to grow, process, distribute and market their farming products. Even though lenders, including banks and credit unions, “...must take the same care and prudence in issuing CALA loans as would be taken in conducting ordinary business,” the Government will repay 95% of a net loss on any eligible loan issued through the program.³⁴⁹ With this security, this means that banks in Middlesex-London have little reason not to loan money to new and developing farm and farm businesses.

The Agricultural Credit Corporation (ACC), a not-for-profit farm organization comprised of 19 producer associations and marketing boards provides operating funds to Canadian producers. The ACC’s Commodity Loan Program, established in 1992, is designed to provide financial assistance to Ontario farmers planting, cultivating, and harvesting stages of food production. Loans of up to \$750,000 are available to farmers involved in everything from grain and oilseed production through to the processing of vegetables, including tomatoes, cucumbers, sweet corn, and peas to name a few.³⁵⁰

Finally, Farm Credit Canada (FCC), “Canada’s leading agriculture lender,” has a \$27 billion loan portfolio. Financing is available for primary producers, for crop inputs, equipment, land and buildings. Notably, primary producers can also apply for loans to support the movement towards environmentally sound practices and renewable energy sources. Farm Credit Canada also provides loans to agribusiness and agri-food businesses that directly support farmers to continue to add value to agricultural products after they leave the farm gate. Agribusiness and agri-food businesses that FCC provides loans to include: agriculture input suppliers, equipment manufacturers and dealers, food manufacturers and processors, wholesalers and distributors, and wineries. Last, FCC Canada has a Young Farmer loan, for qualified producers under the age of 40, to purchase, grow, or develop their farming business.

³⁴⁸ Agriculture and Agri-Food Canada, “Canadian Agricultural Loans Act Program,” 2014, Web, at <http://www.agr.gc.ca/eng/?id=1288035482429>.

³⁴⁹ Agriculture and Agri-Food Canada, “Canadian Agricultural Loans Act Program,” 2014, Web, at <http://www.agr.gc.ca/eng/?id=1288035482429>.

³⁵⁰ Agricultural Credit Corporation, “Commodity Loan Program,” 2015, Web, at https://www.agcreditcorp.ca/commodity_loan_program.

The Ontario Federation of Agriculture (OFA) and Scotiabank have formed a partnership to offer preferred rates and special discounts on banking services for OFA members.

This partnership offers OFA members an exclusive package of personal and business banking products, plus services that provide more financial solutions, advice, tools and resources for your farm business, including: 15% discount on monthly plan fees for ScotiaOne™ Account Plan for agriculture or ScotiaOne™ Account Plan for business; Five month fee waiver for Credit Line for agriculture or Overdraft Protection for business; 0.25% discount off of standard rates for approved credit products (Credit Line for agriculture, Scotia Farm Mortgage Loan, Scotia Farm Improvement Loans/SFIL); Interest rate of Scotiabank prime for the first 6 months on approved ScotiaLine® for business VISA card; Reimbursement of legal/appraisal costs for a Farm Mortgage or Scotia Flex® for agriculture product; 0.25% bonus on posted rates for new personal or business (GICs); and Additional discounts for OFA members switching to Scotiabank.

Source: Ontario Federation of Agriculture, <http://www.ofa.on.ca/join-ofa/benefit-program/scotiabank.aspx>

In addition to the loans mentioned above, there are various types of financial products made available to different size businesses within the food system, many of which are specific to agri-food businesses. In fact, banks and credit unions often have either departments and/or officers dedicated to working with the agricultural sector. Table 51 captures some of the unique financial products available to agri-food businesses in Middlesex-London. Some of these financial products are the result of working partnerships between the food and financial sectors. One example of a partnership, between the Ontario Federation of Agriculture (OFA) and Scotiabank, offers preferred rates and special discounts to members of the OFA.

Table 51: Types of Financial Solutions/Products Available Specifically to Agri-Food Businesses

Institution	Solutions/Products
BMO Bank of Montreal	AgriInvest Account
	Agri ReadiLine Line of Credit
	Canadian Agriculture Loans Act
	Dairy Farms
	Farm Equipment ReadiLine
	Farm Mortgage
	Agriculture Affinity Cards
CIBC	Loans and Lines of Credit
	AgriInvest Program
Libro Credit Union	AgriInvest Account
	Agriculture Rates
RBC Royal Bank	AgriInvest Account
	RoyFarm Mortgage
	RBC Farm Management Line

Institution	Solutions/Products
TD Canada Trust	Agriculture Operating Line
	Canadian Agricultural Loans Act
	Agriculture Term Loan

11.2 Gaps in Knowledge

With limited knowledge on the funding available for food system projects in Middlesex-London, the opportunity presents itself for community-based food businesses and organizations to support the funding and financial landscape work that is currently being undertaken by such organizations as Sustain Ontario and FoodShare Toronto. For example, in communication with potential funders, stakeholders can encourage them to align their grant streams and funding with the impact areas that are collaboratively being identified by the sector. In addition, further research into the number and value of grants allocated to food system projects in the area will contribute to finding the total dollar value of food system funding in Middlesex-London. This information would be complemented by research into the total number of loans awarded to farms and food businesses in the area, as well as research into perceptions of access to credit along the food system value chain. The number of unique investors that finance food system activity in Middlesex-London and how much they are investing is another important research topic.

11.3 Strengths and Assets

It should come as no surprise that the food funding assets in Middlesex-London are all financial assets. These financial assets include the Provincial and Municipal grants being allocated to food system projects in the area. They also include the financial products, as well as government supported financing options or programs, being made available to food and farming business through banks, credit unions, not-for-profits and Crown corporations working in Middlesex-London. The Ontario Soil and Crop Improvement Association’s “Grow Your Farm Profits program,” which couples the Environmental Farm Plan program (see 3.2.1) with OMAFRA’s Growing Forward 2 program, is another financial asset that was identified by key informants during the interview process.

Table 52 lists all of the strengths and assets identified through the community food assessment process that pertain to this section of the report (please see 1.2 for Asset Legend).

Table 52: Strengths and Assets within Food System Funding, Financing and Investment

FOOD SYSTEM FUNDING, FINANCING AND INVESTMENT						
						
126. London Community Foundation grants (e.g. Capital Grant – Food Security)						
127. Community Futures Development Corporation of Middlesex County (grants and loans)						
128. Government supported farm financing options available at local banks						
129. LondonSOUP micro-funder						
130. Grow Your Farm Profits program through Ontario Soil and Crop Improvement Association						

11.4 Areas to Cultivate

No database exists of harmonized information on local food funding in either Middlesex-London or Ontario. The main data about food system project grants comes from grantors themselves, and even this information is difficult to source and find; therefore, it is difficult to know the types and amount of financial resources available to food system projects in Middlesex-London. Stakeholders noted that, while limited financial resources are set aside for local food projects, the majority of grants are small and they neither focus on systemic problems within the food system nor solutions that can help to build a local and sustainable food system. In addition, food system applicants and recipients mentioned that, because food system funders are not working collaboratively with the sector, projects often do not fit well into existing funding streams because there are no standardized food system categories that funders make grants in. As a result, the human resource and time costs associated with searching and applying for funding are high. In combination, the findings, gaps in knowledge, and stakeholder feedback, all point to the need to cultivate more information on and grow food system funding in Middlesex-London.

11.5 Opportunities for Change

While any food system initiative moving forward will need to consider funding as part of the planning process, there are a number of opportunities that are unique to food funding. A few examples that were shared during the community engagement sessions include:

- Involving big food businesses to fund food system projects;
- Collaborating with corporations in the area;
- Generate local funds that can be matched by Provincial or Federal dollars;
- Work with funders to educate them on the types and needs of food system initiatives and activities;
- Create a resource list or database of existing food system funding;

- Trial a local investment fund for food system projects; an
- Help local food projects to clearly identify how their project meets the specific objectives as set out in the grant streams they apply to.

Ontario Investing \$6 Million to Bring More Local Food to the Table

Support of Greenbelt Fund Will Encourage Consumption of Ontario-grown Food

October 8, 2015 4:45 P.M. | Office of the Premier

Ontario is providing \$6 million over three years to increase sales of local food by making it more widely available and building awareness of the variety of food grown and produced in Ontario.

Premier Kathleen Wynne announced this investment today, during Ontario Agriculture Week, while visiting Fresh City Farms in Toronto's Downsview Park. The government will provide the funding to the Greenbelt Fund, a non-profit organization that helps encourage consumption of local food in the Greenbelt and across Ontario.

The investment announced today will support:

- Projects for institutions in the broader public sector, including schools and hospitals, to buy and use more Ontario foods
- Marketing activities, such as workshops and advertising in print and trade media, to celebrate local food champions for their success, leadership and innovation
- Projects to improve food literacy and access to local food
- New tools on Ontariofresh.ca, the Greenbelt Fund's online platform, to help connect local food buyers and sellers.

The economic and health benefits of a thriving agriculture sector and locally produced food were two of the reasons that led the province to create the Greenbelt in 2005. The Greenbelt permanently protects almost 2 million acres of environmentally sensitive land and farm land in the Greater Toronto and Hamilton Area (GTHA) from urban development. As the GTHA continues to grow, the government is committed to enhancing and expanding the Greenbelt to protect this resource, helping to ensure that Ontario continues to grow fresh food to be served at tables across the province and around the world.

Supporting local food, the agri-food sector and Ontario's Greenbelt is part of the government's plan to build Ontario up by investing in people's talents and skills, making the largest investment in public infrastructure in Ontario's history, creating a dynamic, innovative environment where business thrives, and building a secure retirement savings plan.

11.0 FUNDING, FINANCING AND INVESTMENT Funders:

Project Areas: Marketing
Financial Products: 

Production Processing/Manufacturing
Lines of Credit **OMAFRA**

Distribution/Storage Retail
Account Access & Nutrition

Greenbelt Fund
Education Food Quality 

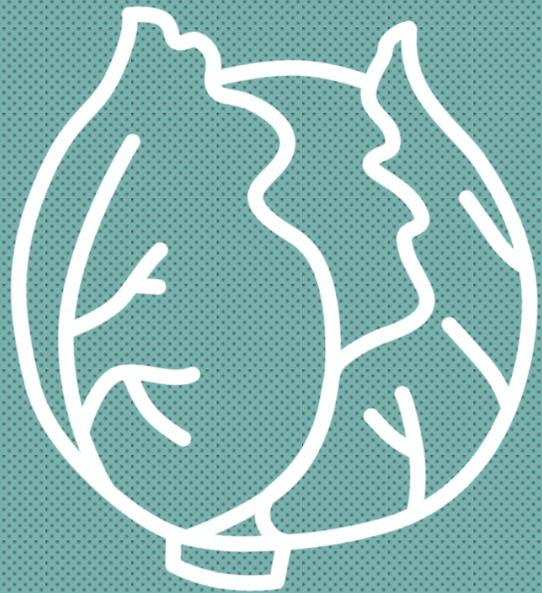
Mortgage Workforce Dev
Biz Planning Energy Procurement 

Regulation & Policy Preferred Rates
Innovation & Research

Social Enterprise Dev 

Community Foundation

12.0 COMMUNITY ENGAGEMENT



12.0 COMMUNITY ENGAGEMENT

The process of a community food assessment involves engaging a broad set of actors from across the community to gather their expertise on different aspects of the community and food system. Residents of the community are so important to engage because they contribute valuable knowledge, skills and perspectives that cannot be captured by other actors. By involving everyone throughout the process, a community food assessment can help to increase community participation in addressing local issues and help to empower people.³⁵¹

Through this community food assessment process, the community was engaged in a number of ways in order to gauge their input and perspective on the Middlesex-London food system. Community members were engaged through interviews, a community survey, an asset mapping session and an action planning session. This section of the community food assessment details the inputs that were received through various community actors.

12.1 Community Survey

As part of this community food assessment, residents of Middlesex-London were engaged through a community survey. Residents were able to complete the survey online, or through paper copies provided through local libraries. The purpose of the survey was to gauge resident's perspective on local food system issues; in particular, assess the importance they attribute to numerous food system issues. For an analysis of the survey sample, please see Section 3.0 Methodology – Primary Research. Within Sections 2.0-11.00 each of the questions within the community survey pertaining to each of the sections throughout the report has been identified and discussed. This section of the report will analyze the responses to each of these questions previously highlighted in contrast to one another, and therefore, will allow one to understand which food issues were prioritized the highest amongst Middlesex-London residents.

Survey Responses

Survey participants were asked to indicate how much they agreed or disagreed with 11 questions about the Middlesex-London food system. For each question, participants ranked on a scale of 1-7 (with one being “strongly disagree”, six being “strongly agree”, and a seventh option for “don’t know”) their degree of agreement with the statement. Out the 779 people who completed the survey, response rates for questions pertaining specifically to the Middlesex-London food system ranged from 701-706 individual responses. The survey results for each question are included in Figure 54.

³⁵¹ K. Pothukuchi, et al., *What's Cooking in Your Food System? A Guide to Community Food Assessment*, 2002, Print, p.8-11.

“It’s important to give money to our local growers, not to multinational corporations that process canned goods which are not even healthy to be consumed.”

- *Survey Respondent*

Overall, there is a high level of support for each of the 11 food system questions. The percentages of respondents who selected “strongly agree” range from 58.4% to 84.4%. If we look at overall level of agree (“strongly agree” responses and “somewhat agree” responses) the percentages range from 85.92%-90.46%. When analyzing solely the responses for which respondents selected “strongly agree,” the most important issues are (from greatest importance to least):

1. Healthy food is affordable for everyone in Middlesex-London; followed by,
2. Children, youth and young adults learn about food and the food system; and lastly,
3. As local farmers get older, others are supported to start farming.

The eleven issues, and the percentage of respondents who responded, “strongly agree” to each issue, are included in Figure 55.

“Being on ODSP, and giving 70% of my cheque to rent, I need affordable food, not just ‘food-like substance’.”

- *Survey Respondent*

Given the survey results, showing a high level of support for each food system issue, it appears that a “social desirability bias” was present within survey responses. This type of bias describes the tendency of survey respondents to answer questions in a manner that they believe will be viewed favourably by others. In other words, people respond to questions based on what they think other people may want them to answer. This bias is highlighted in one survey respondent who stated, “What kind of person would have a response other than strongly agree or agree to the questions in part 3.” Recognizing this social desirability bias is important because it helps to explain why the survey results were overwhelmingly positive.

Figure 54: Survey Respondents Priorities within the Middlesex-London Food System

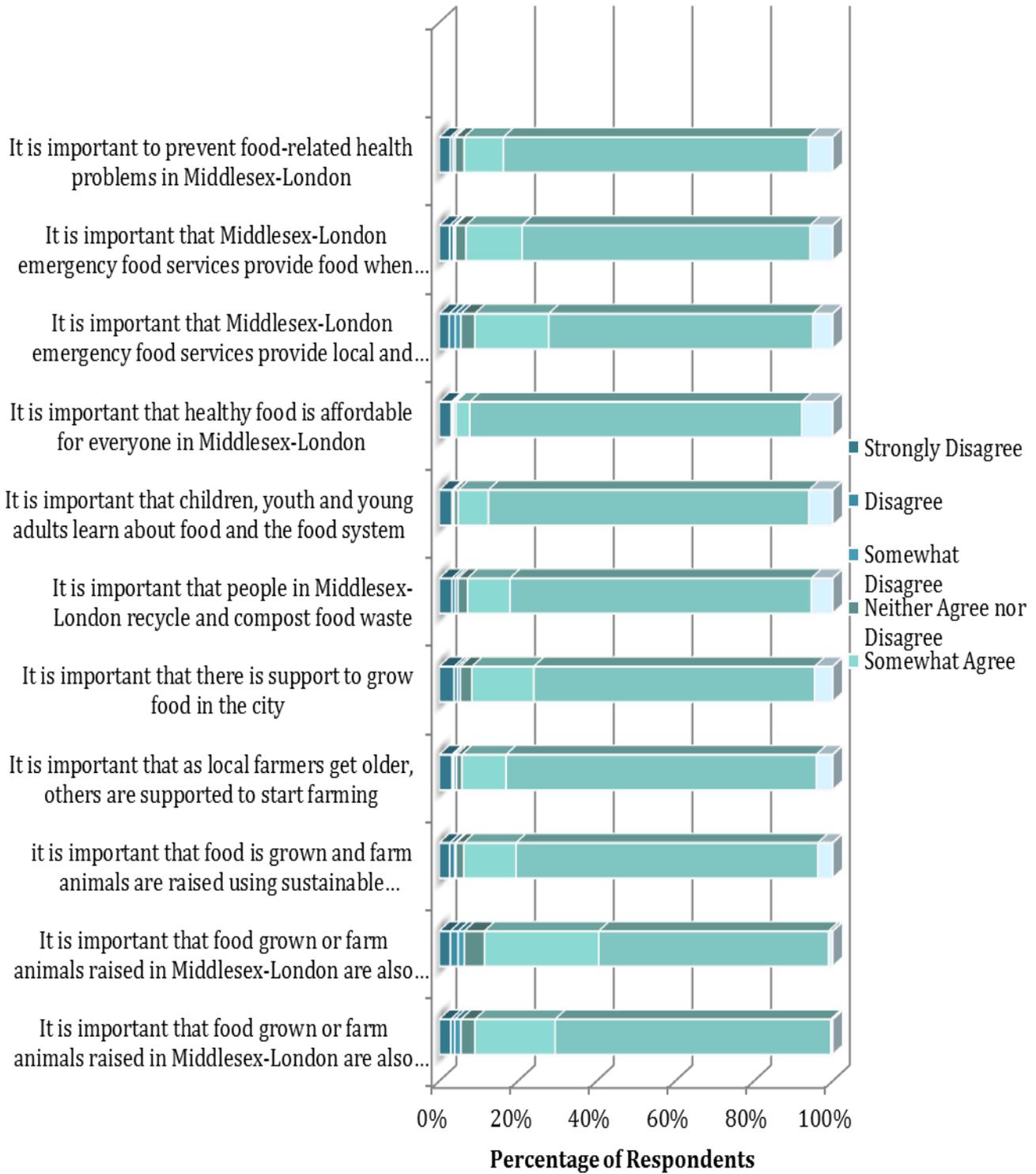
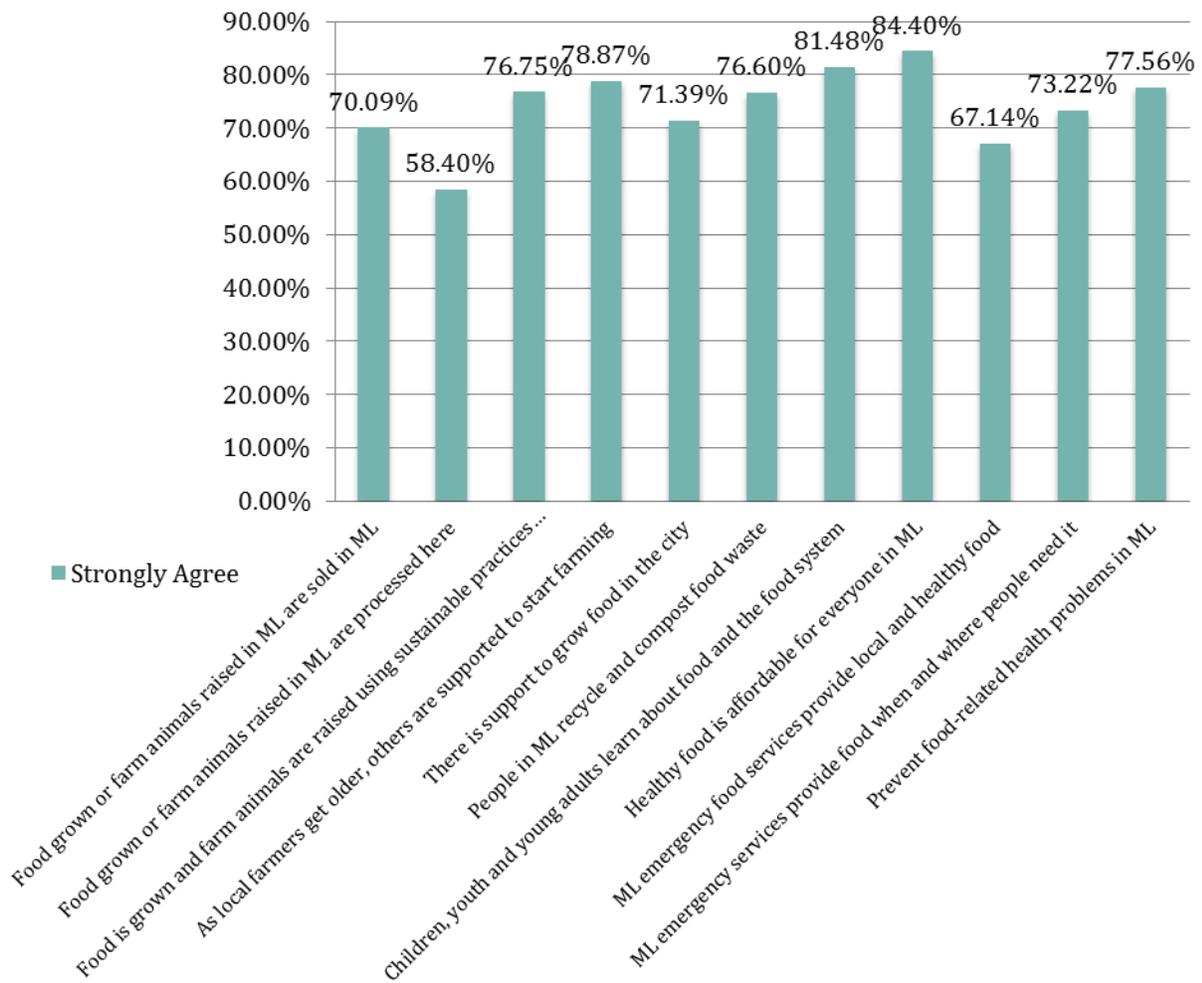


Figure 55: Percentage of Strongly Agree for Food System Issues



When the scales for the different levels of importance are weighted (where “strongly disagree” is rated the lowest and “strongly agree” is rated the highest) we can get a clear picture of which initiatives received the most support from survey respondents. Through using this type of analysis, the top three most supported issues are:

- Healthy food is affordable for everyone in Middlesex-London;
- Children, youth, and young adults learn about food and the food system;
- Food-related health problems are prevented in Middlesex-London; and People are supported to start farming as local farmers get older (tied with a weighted average of 5.65).

The results of the weighted scores are the same as when the results for “strongly agree” are analyzed based on percentage in each response category, with the exception of preventing food-related health problems being added to the top three for weighted scores.

“Green space is good for emotional health in addition to providing sources of food.”

- Survey Respondent

Table 53: Middlesex-London Food System Issues Responses with Weighted Average

Middlesex-London Food System Question	Weighted Average
It is important that food grown or farm animals raised in Middlesex-London are also sold here.	5.49
It is important that food grown or farm animals raised in Middlesex-London are also processed here. (Examples of processing include preparing, canning and packaging food.)	5.33
It is important that food is grown and farm animals are raised using sustainable practices in Middlesex-London. Sustainable practices help protect the environment and health of humans and animals. Sustainable practices could use less water and energy	5.62
It is important that as local farmers get older, others are supported to start farming.	5.65
It is important that there is support to grow food in the city. (For example, rooftop gardens, community gardens and public fruit trees.)	5.52
It is important that people in Middlesex-London recycle and compost food waste.	5.61
It is important that children, youth and young adults learn about food and the food system.	5.70
It is important that healthy food is affordable for everyone in Middlesex-London.	5.76
It is important that Middlesex-London emergency food services, such as food banks and community meals, provide local and healthy food.	5.48
It is important that Middlesex-London emergency food services, such as food banks and community meals, provide food when and where people need it.	5.60
It is important to prevent food-related health problems such as obesity, diabetes and heart disease in Middlesex- London.	5.65
*Note: for each of these questions the response “Don’t Know” was weighted as a ‘0’ as not to affect the weight of the agreement levels.	

Table 53 above notes the average rating (by weighted average) for each question.

As can be seen in Table 53, there is an overall high level of agreement with each of the 11 questions on the local food system. Even the weighted average for the most important issue (healthy food is affordable – 5.76) is not much higher than the least supported issue (processing locally grown food or animals raised – 5.33).

Survey analysis also included disaggregating survey responses by demographic characteristics (place of residence, age, gender, and household income). When this type of analysis was performed the top two most supported issues and the least supported issue remained true regardless of demographic characteristics. Overall, there was agreement that healthy food being affordable for everyone is the most important issue, having opportunities for children,

youth and young adults to learn about food and the food system is the second most supported issue, and processing Middlesex-London grown produce or raised farm animals within Middlesex-London is the least supported issue. For some of the demographic analysis, responses differed on the third most important issue and the second and third least supported issues; however, these differences were not significant. These results show that overall; there is great consensus on food system issues in Middlesex-London. When looking to build a stronger, more sustainable food system, the results of this survey can help change makers and community leaders to identify which issues are most supported by the community and thereby, identify priorities for a Food Policy Council that are most applicable to the community.

Through the community survey residents were also able to comment on local food system assets, cultivation areas, and opportunities for a stronger more sustainable food system. These comments have been included in Section 4.0 Community Food Assessment.

12.2 Asset Mapping

Introduction

In the asset mapping session, community leaders came together to analyze and discuss the assets located within the local food system. Working groups were provided with a list of assets that were identified during the environmental scan and key informant interview process. The groups worked to group these assets according to the asset type to which they belonged (e.g. social and political, intellectual, living etc.).

In the end, each asset within Middlesex-London was mapped onto a large format visualization of the local food system. Figure 56 shows the 7 food system areas (i.e. farm inputs, production, etc.) along with the types of assets that can be found in each area (identified as black icons and corresponding to the legend). Figure 56 also shows which types of assets cross the food value chain in Middlesex-London.

“It is time to take charge of our health.”
- *Survey Respondent*

Figure 56: Middlesex-London Food System Asset Map



Legend	
Asset Type	
Living	
Material	
Cultural & Spiritual	
Intellectual	
Experiential	
Financial	
Social & Political	

12.3 Community Action Planning

Introduction

The community action planning session, which followed directly after the asset mapping session, saw 22 key community members and leaders come together to build upon the preceding session. The primary objective of this interactive and participatory session was to co-design and vote on mini action plans for the Middlesex-London community.

During the session, 10 cultivation areas were introduced to the group (cultivation areas are an identifiable area within a local food system where both challenges and opportunities exist and can be explored by the community towards creating the change they want to see). The cultivation areas were identified through the environmental scan and key informant interviews.

Participants were then asked to identify other cultivation areas within the London-Middlesex food system that could be worked within to make the local food system stronger, healthier and more sustainable. Together, the following 14 areas were identified:

- Food literacy
- Small-scale agriculture production
- Young and new farmers
- Emergency food access
- Sustainable production
- Health and wellness
- Food accessibility
- Food waste reduction
- Local food processing and distribution
- Rural-urban connection
- Food policy
- Urban agriculture
- Land protection
- Public media campaign

These 14 areas were narrowed down to six by the group and then they decided, collectively, to focus on developing initiatives within four of the six areas; these included: food waste reduction, small-scale agriculture production, food literacy, and local food processing and distribution. Food policy and food funding served as overarching areas for each of the four cultivation areas of focus.

Within each cultivation area, the working group decided on three initiatives that could be implemented to make that specific cultivation area stronger within the local food system. The entire group then voted on the top initiative within each cultivation area and a work plan was developed on that one initiative. The work completed in each of the cultivation areas is discussed below.

Cultivation Area: Food Waste Reduction

Initiatives

The food waste reduction group brainstormed three initiatives that could be worked on to strengthen this area of the food system. They are as follows:

1. Quantification exercise to determine how much food waste there is in Middlesex-London
2. Local food hub (e.g. Western Fair project)
3. Compost awareness project

Through a democratic voting process, participants prioritized the quantification exercise as the most promising initiative within food waste management. A subsequent work plan for this initiative was then developed.

Work Plan

Table 54: Work Plan for Food Waste Reduction

Cultivation Area	Food Waste Reduction
Initiative	Quantification exercise to determine how much food waste there is in Middlesex-London
Goals or Objectives	<ul style="list-style-type: none"> - Discover how much food comes into Middlesex-London - Redefine definitions - Establish baselines
Action Items (Steps to be taken)	<ul style="list-style-type: none"> - Define food waste in Middlesex-London
Needed Resources (financial/human)	<ul style="list-style-type: none"> - Hardware and software power/ human interface/ research - Someone to build the database - Research to discover current model for similar action - Neighbourhood association champions - Ontario Trillium Fund - Ontario Ministry of Agriculture, Food and Rural Affairs - City of London - Greenbelt Fund - Federal energy/consent
Assets to Leverage	<ul style="list-style-type: none"> - Online systems - POP surveys - Neighbourhood association champions
Measures of Success (outcomes)	<ul style="list-style-type: none"> - Database - Definitions of waste, inputted food, outputted food - Estimate of amount of food in the streams - Build a robust tracking system

Cultivation Area: Food Literacy

Initiatives

Within the food literacy group three initiatives were devised that would help to increase food education, knowledge and/or literacy amongst Middlesex-London residents. The group selected the following as their top three initiatives:

1. Food literacy working group (that develops a common food literacy message and filters it out through networks and media to residents)
2. Pilot a project (i.e. a school garden) and evaluate whether it increases food literacy
3. Media campaign to increase food literacy in Middlesex-London

Participants selected the establishment of a food literacy working group as their top priority amongst the three; the group then developed a work plan according to how this group would be formed and function within Middlesex-London.

Work Plan

Table 55: Work Plan for Food Literacy

Cultivation Area	Food Literacy
Initiative	Food literacy working group
Goals or Objectives	<ul style="list-style-type: none"> - Cross sector membership of food literacy champions - Unify food literacy message - Combine resources and define gaps in food literacy - Define target groups - Form tangible solutions - Engage in advocacy efforts - Training through train-the-trainer model
Action Items (Steps to be taken)	<ul style="list-style-type: none"> - Develop common message and subsequently, adjust one's own work environment to incorporate this messaging - Pilot projects focused on food literacy with an evaluation component - Recruit members - Find funding and administrative support - Engage in advocacy opportunities - Participate in outreach opportunities - Create a directory
Needed Resources (financial/human)	<ul style="list-style-type: none"> - Funding - Working group members could include: student volunteers, food retailers, farm to fork, education, community groups, churches, media, senior centres, child care centres, farmers markets, food festivals
Assets to Leverage	<ul style="list-style-type: none"> - Beautiful Edibles, Middlesex-London Health Unit (Cooking Matters, food

Cultivation Area	Food Literacy
Initiative	Food literacy working group
	safety training), Food Not Lawns, Life Spin, Middlesex 4-H Association, Community Resource Centres, Healthy Kids Community Challenge, London Training Centre, Cooking Matters, London Gets Local, Growing Chefs!, libraries, Grow Cook Learn, YMCA, Girl Scouts, Boy Scouts, Cherry Hill, Kiwams, Master Gardeners, churches, community gardens, London Environmental Network, London Parks and Recreation, summer camps
Measures of Success (outcomes)	<p>The food literacy working group's success will be determined by:</p> <ul style="list-style-type: none"> - Reach - Adoption of messaging - How many current programs integrate the unified food literacy message - Any change that occurs through advocacy <p>For the pilot project, measure of success will be determined by:</p> <ul style="list-style-type: none"> - Pre and post evaluation

Cultivation Area: Local Food Processing and Distribution

Initiatives

The group working on the local food processing and distribution area talked through a number of different initiatives related to their area, and selected the following three as their top initiatives.

1. Municipal policy bylaw mandating public institutions to procure a designated percentage of local food in their menus
2. Regional branding (verifying that the product was grown/raised in Middlesex-London)
3. Co-operatively owned distribution

Of the three initiatives, the top initiative selected by the group was the opportunity to create a municipal policy bylaw mandating public institutions to procure a designated percentage of local food in their menus. The group then worked together to create a work plan that established what was needed to make this initiative come to life.

Work Plan

Table 56: Work Plan for Local Food Processing and Distribution

Cultivation Area	Food Processing and Distribution
Initiative	Municipal policy bylaw mandating public institutions to procure a designated percentage of local food in their menus
Goals or Objectives	- Achieve council support for a bylaw to mandate a percentage of local food in all London operated facilities that have food.
Action Items (Steps to be taken)	- Research similar examples - Look for other municipalities that have done this - List all food sales spots within the corporation - Anticipate issues and solve as many problems - Establish transition period - Locate a council champion - Define local in this context - Framework for tracking success and progress
Needed Resources (financial/human)	- A person to lead the process or coordinate the process - Western University students - Middlesex-London Health Unit food system person - City of London staff - Media support
Assets to Leverage	- Small and large scale farmers - Existing transportation and distribution systems - Existing demand for local food in the community - Existing production facilities - Food system funding
Measures of Success (outcomes)	- Bylaw passed - Leading by example - Increased capacity in the local food system - Others institutions follow suit

Cultivation Area: Small-scale Agriculture Production

Initiatives

The small-scale agriculture production group brainstormed three initiatives that they believed would be particularly useful in strengthening this area of the food system. The top three are:

1. Food hub: customers, logistics and storage
2. Education to scale up and manage growth within Middlesex-London
3. Business model that fosters mentorship and support (e.g. an incubator model to provide training to new farmers)
4. Farm Co-operatives to help bridge farmers (who have business training) to land

The development of a food hub was voted by the group to be the most promising initiative of the three. Next, in their smaller group a work plan was developed that outlines the goals, steps, needed resources, assets, and measures of success for a Middlesex-London food hub (with customers, logistics and storage).

Work Plan

Table 57: Work Plan for Small-scale Agriculture Production

Cultivation Area	Small-scale Agriculture Production
Initiative	Food hub: customers, logistics and storage
Goals or Objectives	<ul style="list-style-type: none"> - Central locations (multiple hubs) - Easy access for producer and buyer to obtain local, quality products - Equitable for all parties - Fair prices - Financial viability for producers - Increase markets (increase sales)
Action Items (Steps to be taken)	<ul style="list-style-type: none"> - Marketing to customers - Creating value added options - Location - Producers to work with - Staff - Communication
Needed Resources (financial/human)	<ul style="list-style-type: none"> - Producers - Partners - Local champions - Funding - Transportation (accessible to all)
Assets to Leverage	<ul style="list-style-type: none"> - Farm community - The demand for product is nearby (large population in London) - Packaging - Existing locations - Large restaurant potential in the area - Many institutions in the area - Western Fair and existing farm markets
Measures of Success (outcomes)	<ul style="list-style-type: none"> - Increase in sales - Sustainability - Growth in the number of producers using the hub to market their products

Summary

During the Community Action Planning Session food waste reduction, food literacy, local food processing and distribution and small-scale agriculture production were prioritized as the areas to begin working on. The groups developed work plans for initiatives that aim to quantify how much food waste exists in Middlesex-London; form a food literacy working group; advocate for a municipal policy bylaw mandating public institutions to procure a designated percentage of local food; and create a food hub with customers, logistics and storage. Each of the work plans developed was highly supported by the larger group. Also, each of these initiatives can be further prioritized and developed by a local food policy council given that there is a large amount of community support to strengthen these areas of the Middlesex-London food system and also a significant number of community leaders willing to contribute to the success of these initiatives.

13.0 MOVING FORWARD



13.0 MOVING FORWARD

13.1 Summary

The roots of a local sustainable food system in Middlesex-London are beginning to develop; however, there is room to help these roots flourish, particularly by using the many strengths and assets within the area. Residents and staff of Middlesex-London identified strengths across the food system, with the greatest number of strengths identified in the areas of food production, retail and consumption. It was also noted by these individuals that residents express a great interest in the local food system and that this interest is growing.

With such a great deal of food system strengths and individuals interested in the local food system, it is an opportune time for Middlesex-London to take action in building a stronger, more sustainable local food system. Throughout this community food assessment, many opportunities have been identified that will help to accomplish this goal. In some areas, there are major gaps in information that need to be addressed in order for the issues to be understood in their entirety; without this understanding, appropriate initiatives to strengthen the food system in these areas cannot be identified. In addition to many opportunities for transformation, the Middlesex-London food system is not without its challenges. The effort exerted towards growing crops for export out of the local food system, the lack of healthy lifestyles of residents, the many barriers facing new farmers, and the numbers of food insecure residents are some of the key challenges facing the Middlesex-London food system. The following section of this community food assessment focuses on moving forward to a stronger, healthier, more sustainable food system and the many ways Middlesex-London can work toward this goal.

13.2 Recommendations

One of the means of transitioning to a stronger, more sustainable local food system involves conducting additional information on important food system related information that is not currently/readily available. Conducting this research will help to build a clearer picture of the local food system, and therefore, appropriate initiatives that would make the food system stronger. The areas identified in need of future research are organized in the tables below by the section of the report in which they were identified.

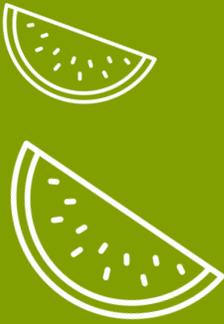
Table 58: Further Research Needed in Population

	POPULATION	
	Amount of people experiencing homelessness in Middlesex-London	
	Data on the number of people receiving ODSP and the number of beneficiaries (i.e. dependents) of social assistance within Middlesex-London	
	Initiatives that target food insecurity amongst Indigenous peoples	

Table 59: Further Research Needed in Food Production

	FOOD PRODUCTION	
	New crops that Middlesex-London can specialize in, as well as, the opportunity to work on a future regional crop diversification strategy;	
	Number of on-farm sustainable agricultural policies;	
	The specific goals and measures used and implemented in farm plans;	
	Number of independent farm policies and practices;	
	New crops that Middlesex-London can specialize in, as well as, the opportunity to work on a future regional crop diversification strategy	
	Soil and climatic conditions in regards to growing various crops	
	The amount or proportion of food being sold locally versus the amount of food being sold into the wider system—Provincially and beyond	

Table 60: Further Research Needed in Food Access and Distribution

	FOOD ACCESS AND DISTRIBUTION	
	Development in alternative food distribution in Middlesex-London, which may include co-ops, developing food hubs, or programs like Coupons for Hunger	
	Additional information on food distributors, wholesalers, aggregators and warehouses, as well as community food hubs, is also needed, and a map of these within Middlesex-London	
	Micro-food processing activity that is taking place in the area	
	Annual amount of food produced for Community Shared Agriculture programs (CSAs)	
	Identifying market vendors and the products they sell at farmers' markets	
	Defining and breaking out the number of fast food establishments from the total number food service outlets	
	The percentage of food that gets processed and sold to Middlesex-London residents, alongside information on the potential barriers and solutions to	

FOOD ACCESS AND DISTRIBUTION

increasing local food processing and procurement
Small-scale wholesale and distribution activities of food, as well as food storage and aggregation points in Middlesex-London
Availability of local food in the area made available through distribution and processing activity in Middlesex-London

Table 61: Further Research Needed in Food Purchasing and Consumption

FOOD PURCHASING AND CONSUMPTION	
	Total dollar value of food purchased in Middlesex-London, over the last 10 years, by type of establishment;
	Total dollar value of local food purchased in Middlesex-London, over the last 10 years, by type of establishment
	General public's attitudes and behaviours toward healthy, local and sustainably produced food;
	General eating habits by sub-population (disaggregated by age, gender, ethnicity, place of residence, education level, income level)
	Total dollar value of food expenditure by BPS institutions located in Middlesex-London
	Total dollar value of household food budget increase through the purchasing of food that is either healthy, local or sustainably produced, compared to the average household food budget
	Collect and standardize information on local food purchasing (including a definition for "local" food) to track progress across the Middlesex-London food system
Types of food being purchased, by type of establishment, and how much of this food is local;	

Table 62: Further Research Needed in Food Education, Knowledge and Literacy

FOOD EDUCATION, KNOWLEDGE AND LITERACY	
	How many people within Middlesex-London are taking part in food education programs, courses, and resources;
	Food literacy level of Middlesex-London residents;

Table 63: Further Research Needed in Food Waste Management

FOOD WASTE MANAGEMENT	
	Data on the percent of diverted waste and diverted organic waste, as a total of all diverted waste;
	Composting behaviours of Middlesex-London residents (why some people compost and others do not);
	Amount of food wasted by producers, restaurants and supermarkets, fast food chains, processors, and distributors;

Table 64: Further Research Needed in Risk Management and Food Safety

RISK MANAGEMENT AND FOOD SAFETY	
	Number of provincial level food recalls that affect food sold in Middlesex-London; and
	A clear indication of the number, and/or how often, local food risk assessments are conducted.

Table 65: Further Research Needed in Funding, Financing and Investment

FUNDING, FINANCING AND INVESTMENT	
	Number and value of grants allocated to food system projects in Middlesex-London;
	Total number of loans awarded to farms and food businesses in Middlesex-London;
	Perceptions of access to credit along the food system value chain;
	Number of unique investors that finance food system activity in Middlesex-London and how much they are investing.

In addition to conducting research in various areas, there are a number of other initiatives that Middlesex-London can implement to support a stronger, more sustainable food system. The recommendations provided in Sections 2-11 of this report have been gathered and themed according to related food system topics. In Middlesex-London, recommendations fall within the following categories: innovative food policy, food funding and investment, urban agriculture, supporting farmers, local food procurement, infrastructure development, food waste, community programming and food literacy. An additional theme has been created for recommendations that do not fall within these themes and has been labelled “Additional Recommendations.” Below is a chart for each of the themes including all of the corresponding recommendations.

Table 66: Recommendations for Innovative Food Policy

Recommendation	Participation in Implementation			
	Individual/ Household	Community- led/ Organization	Industry/ Stakeholders Across the Value Chain	Municipality (Middlesex- London)
INNOVATIVE FOOD POLICY				
Form a Food Policy Council, representing a diversity of stakeholders across the value chain, to begin moving forward on community-led initiatives and raising the profile of food within the municipal political environment.	✓	✓	✓	✓
Prepare a draft terms of reference for the food policy council detailing the composition, number of meetings per year, roles and responsibilities, decision-making and voting process. Once the council is formed it can make any amendments to the terms of reference that it sees fit.		✓		
Use a fair and transparent nominations and election process for appointing members of the food policy council		✓		
Utilize any available staffing resources (e.g. through the Public Health Unit) to assist in administrating the food policy council and organizing the many working groups involved in supporting community initiatives		✓		
Use regulations to ensure that animal farming is ethical and humane.		✓	✓	✓
Implement procurement policies in institutions that facilitate the procurement of locally produced foods and drink.				✓
Develop land zoning policy to accommodate smaller farms.				✓
Create policies to support communication across the food value chain in regards to waste management.			✓	✓
Add “level of food insecurity” as an eligibility criterion to the City of London Community Improvement Policies for				✓

Recommendation	Participation in Implementation			
	Individual/ Household	Community- led/ Organization	Industry/ Stakeholders Across the Value Chain	Municipality (Middlesex- London)
residential areas.				
Develop and launch a local, healthy and sustainable food system survey for local councillors focusing on gauging their willingness to support progressive agri-food policies and areas where immediate and longer-term results may be achieved.		✓	✓	✓

Table 67: Recommendations for Food Funding and Investment

Recommendation	Participation in Implementation			
	Individual/ Household	Community- led/ Organization	Industry/ Stakeholders Across the Value Chain	Municipality (Middlesex- London)
FOOD FUNDING AND INVESTMENT				
Designate funding to community-led food initiatives that target food insecure populations.		✓	✓	✓
Reallocate funding for large-scale farming to include dollars for small-scale farming.		✓	✓	✓
Designate funding to community-led food initiatives that target food insecure populations		✓	✓	✓

Table 68: Recommendations for Urban Agriculture

Recommendation	Participation in Implementation			
	Individual/ Household	Community- led/ Organization	Industry/ Stakeholders Across the Value Chain	Municipality (Middlesex- London)
COMMUNITY-BASED AND URBAN AGRICULTURE				
Implement community gardens in every neighbourhood, prioritizing those in communities designated as food deserts.		✓		
For those community gardens with re-occurring wait lists, Increase the number of community garden plots available.		✓		
Implement urban food projects, such as rooftop gardens, the planting of food		✓		✓

Recommendation	Participation in Implementation			
	Individual/ Household	Community- led/ Organization	Industry/ Stakeholders Across the Value Chain	Municipality (Middlesex- London)
producing trees in public spaces, front-yard vegetable gardening, and making use of existing public space to grow food.				
Support urban food projects, such as rooftop gardens, the planting of food producing trees in public spaces, front-yard vegetable gardening, and making use of existing public space to grow food.	✓	✓	✓	✓
Support the use of green (environmentally friendly) infrastructure in urban agriculture projects (e.g. rain gardens).	✓	✓	✓	✓
Apply for Greenbelt’s local food literacy grant stream and utilize grant money received to increase food literacy amongst residents.		✓	✓	
Explore additional means of receiving money, aside from funders (such as banks).		✓	✓	
Support the funding and financial landscape work that is currently being undertaken by such organizations as Sustain Ontario and FoodShare Toronto.		✓	✓	✓
Create a database of harmonized information on local food funding in Middlesex-London and/or Ontario.		✓		
Create funding streams where big food businesses fund local food system projects.			✓	
Leverage local dollars to acquire matching contributions of Provincial and Federal dollars.		✓	✓	✓
Work with funders to educate them on the types and needs of food system initiatives and activities.		✓	✓	
Help local food projects to clearly identify how their project meets the specific objectives as set out in the grant streams they apply to.		✓		

Recommendation	Participation in Implementation			
	Individual/ Household	Community- led/ Organization	Industry/ Stakeholders Across the Value Chain	Municipality (Middlesex- London)
Create a local investment fund for food system projects.		✓	✓	✓
Incentivize purchasing on local and healthy food.		✓	✓	✓
Assist small local producers in marketing and retailing their product.		✓	✓	✓
Build the “Plant a Row, Grow a Row” model into each community garden. (see section 8.5 for more information)		✓		
Participate in the “Plant a Row, Grow a Row” campaign. (see section 8.5 for more information)	✓	✓	✓	
Make an explicit commitment to support urban agriculture through The Official Plan for London.		✓		

Table 69: Recommendations for Supporting Farmers

Recommendation	Participation in Implementation			
	Individual/ Household	Community- led/ Organization	Industry/ Stakeholders Across the Value Chain	Municipality (Middlesex- London)
SUPPORTING FARMERS				
Increase the variety of crops that are grown; specialize in crops that grow in soil and climatic conditions found in Middlesex-London.			✓	
Engage in succession planning for the future of the agricultural industry in Middlesex-London.	✓	✓	✓	✓
Create environmental farm plans that include social aspects (reflecting a full sustainability plan).			✓	
Integrate sound environmental management practices into farming operations.			✓	
Support farmers who choose to transition towards more sustainable farming practices and renewable energy sources.		✓	✓	✓

Recommendation	Participation in Implementation			
	Individual/ Household	Community- led/ Organization	Industry/ Stakeholders Across the Value Chain	Municipality (Middlesex- London)
Promote farming as a career choice.	✓	✓	✓	✓
Incentivize and reward sustainable farm practices.		✓	✓	✓
Develop support programs for farmers, such as farm mentorship and internship programs and farm incubators.		✓		
Subsidize and protect new farm businesses through cost-neutralizing or guaranteed income programs.				✓
Promote participation in community shared agriculture programs.	✓	✓	✓	✓
Expand community shared agriculture programs through involving more farmers and more shareholders.		✓	✓	

Table 70: Recommendations for Local Food Procurement

Recommendation	Participation in Implementation			
	Individual/ Household	Community- led/ Organization	Industry/ Stakeholders Across the Value Chain	Municipality (Middlesex- London)
LOCAL FOOD PROCUREMENT				
Offer locally produced, healthy food in variety and convenience stores.			✓	
Incentivize supermarkets/grocery stores to offer more local products.		✓	✓	✓
Offer a healthy, fresh and local food at concession stands in recreational facilities.			✓	
Encourage restaurants in Middlesex-London to participate in the Feast ON program.	✓	✓	✓	

Table 71: Recommendations for Infrastructure Development

Recommendation	Participation in Implementation			
	Individual/ Household	Community- led/ Organization	Industry/ Stakeholders Across the Value Chain	Municipality (Middlesex- London)
INFRASTRUCTURE DEVELOPMENT				
Invest in local processing infrastructure for the small-to-medium sized farmers and food businesses focused on value-added products.			✓	✓
Establish a local food hub that can help to facilitate the logistics involved in alternative distribution.		✓	✓	
Leverage land use policies to develop Netherland-style care farms. (see section 8.5 for more information)		✓	✓	
Develop agrihoods, where agriculture and neighbourhoods work in tandem with one another. (see section 8.5 for more information)				✓

Table 72: Recommendations for Food Waste

Recommendation	Participation in Implementation			
	Individual/ Household	Community- led/ Organization	Industry/ Stakeholders Across the Value Chain	Municipality (Middlesex- London)
FOOD WASTE				
Identify where and how the seven creators of waste are contributing to the waste problem and who needs to be part of the food waste solution.		✓	✓	✓
Implement a curbside green bin composting program in London.				✓
Encourage, promote, and demonstrate composting to acquaintances, friends and family.	✓	✓	✓	✓
Expand Community Harvest Program to other food bank locations in Middlesex-London.		✓		
Create a long-term vision for collective waste management.	✓	✓	✓	✓

Table 73: Recommendations for Community Programming

Recommendation	Participation in Implementation			
	Individual/ Household	Community- led/ Organization	Industry/ Stakeholders Across the Value Chain	Municipality (Middlesex- London)
COMMUNITY PROGRAMMING				
Utilize commercial kitchens (available through local businesses) to offer community space to groups that can shop, prepare food and cook together. Create an incentive for local businesses to offer their commercial kitchens.		✓		
Implement organized physical activity, regularly occurring, for families to participate in together.		✓		
Create and/or adapt existing healthy living programs for students to focus on healthy eating and physical activity.		✓		

Table 74: Recommendations for Food Literacy

Recommendation	Participation in Implementation			
	Individual/ Household	Community- led/ Organization	Industry/ Stakeholders Across the Value Chain	Municipality (Middlesex- London)
FOOD LITERACY				
Transform food banks into food literacy centres (i.e. growing, cooking, cleaning, preparing, processing and eating food).		✓		
Educate the public about the local food system by hosting events that build local food awareness.		✓		✓
Increase awareness amongst the public about the true cost of fresh quality food so as to combat the false perceptions that food should be cheap.	✓	✓	✓	
Set up an interactive blog on food and food system issues, educating people on the importance of not only whole foods but also which of these foods come from local farms.		✓		
Advocate for food education to be built into elementary and secondary school curriculum.	✓	✓	✓	✓

Recommendation	Participation in Implementation			
	Individual/ Household	Community- led/ Organization	Industry/ Stakeholders Across the Value Chain	Municipality (Middlesex- London)
Expand food education efforts in elementary and secondary schools.		✓	✓	
Build a school garden in every school.		✓		
Advocate for a school garden in every school.	✓	✓	✓	✓
Increase awareness of the London Food Charter.	✓	✓	✓	✓

Table 75: Additional Recommendations

Recommendation	Participation in Implementation			
	Individual/ Household	Community- led/ Organization	Industry/ Stakeholders Across the Value Chain	Municipality (Middlesex- London)
ADDITIONAL RECOMMENDATIONS				
Decrease meat consumption and increase consumption of both fresh fruits and vegetables.	✓			
Every school in Middlesex-London participates in the Ontario Student Nutrition Program or a program that provides fresh, healthy food at no cost.		✓		
Participate in future action planning that is directed towards steering food dollars away from restaurants, especially fast food restaurants, and towards retailers of fresh whole healthy food. Couple this action with food literacy skills development work that empowers households to cook more often at home using fresh local ingredients.		✓	✓	✓
Implement actions required to achieve the objectives set out in the London Food Charter.		✓	✓	✓
Adopt a more holistic perspective when it comes to risk management, focusing on food safety and food availability.		✓	✓	✓
Strengthen local academic institutions research and innovation program in agri-food to ensure a clear focus on solutions			✓	

Recommendation	Participation in Implementation			
	Individual/ Household	Community- led/ Organization	Industry/ Stakeholders Across the Value Chain	Municipality (Middlesex- London)
that enhance a local, sustainable food system.				
Collaborate with corporations in the region on food-based projects.		✓	✓	

In addition to the recommendations provided in sections 2-11 of this report, the community also identified four initiatives that would assist in making the local food system stronger and more sustainable. The four ideas include:

- Carrying out a quantification exercise to determine how much food waste there is in Middlesex-London;
- Establishing a food literacy working group;
- Establishing a municipal policy bylaw mandating public institutions to procure a designated percentage of local food in their menus; and
- Creating a food hub that focuses on customers, logistics and storage.

Each of these initiatives is outlined in detail in Section 12.3 of this report.

As can be seen, there are numerous recommendations Middlesex-London can implement towards building a stronger, more sustainable food system. In deciding which initiatives may be most helpful, Canadian food policy analyst and writer, Wayne Roberts, provides 10 key recommendations for “issue managers” in the food sector; these recommendations can be used to prioritize what initiatives should be implemented first and foremost. Issue managers include those working towards addressing food system issues in various capacities (public, private, non-profit sector) and at various levels (individuals, community, municipal). Wayne recommends for issue managers to:

- Position yourselves as "solutionaries" and problem-solvers, not problem-raisers.
- Look for icebreakers and conversation-starter issues to begin with, so you can create a ladder of engagement. Move with assets already in place but that are currently underused.
- Position yourselves to be the tipping point; push an issue that already has already been identified as problematic on a larger level.
- Make full use of soft power, rather than limiting yourself to hard power (legal enforcement) of government. Try the power of example (e.g. a food garden in front of a prominent building).
- Make sure there is already a skilled and respected champion on side and make sure you have a respected partner (e.g. a faith organization or food bank) before moving on an

issue. The saying goes – If you want to go fast, go alone; if you want to go far, go together.

- Work on "universal" issues; take up issues of general public interest (such as school gardens that serve all children at the school, not just one group).
- Stick with issues that have consensus. Look for issues that have interest, relevance and benefits across the spectrum (e.g. initiatives that are good for environment, business, city finances, health and community).
- Look for issues where food has leverage, even if the issue is not a food issue. For example, a community garden can establish community cohesion and safety, and the provision of food is another benefit.
- Food work requires resources and skills and persistence, and deserves the backing needed to be sustainable. Most often, this requires the support of the municipalities. It does more harm than good to have a project start, flare up, and then end prematurely.
- The issue must have some tangible and direct impact on the wellbeing of city and county residents and the City and County as institutions.

As with many of Ontario's regions, the Middlesex-London food system is ripe with assets and opportunities for developing a healthier, sustainable, resilient and equitable food system. With an engaged public and collaboration from local community organizations, public institutions, industry and government, much will be accomplished with the appropriate initiative, resources, time and policy change. A food policy council will provide an on-going place for dialogue, decision-making, and the coordination of a variety of initiatives that may be citizen-led, community-led, industry-led, municipally-led, or truly cross-sector. A food policy council will not only ensure that the vision of a local and sustainable food system is served—and preserved—through the many projects it undertaken but a food policy council will also be the platform for information-sharing, knowledge transfer, and citizen engagement between the many activities and initiatives taking place on-the-ground.