



Exploring Agriculture



lepc

Local Employment
Planning Council

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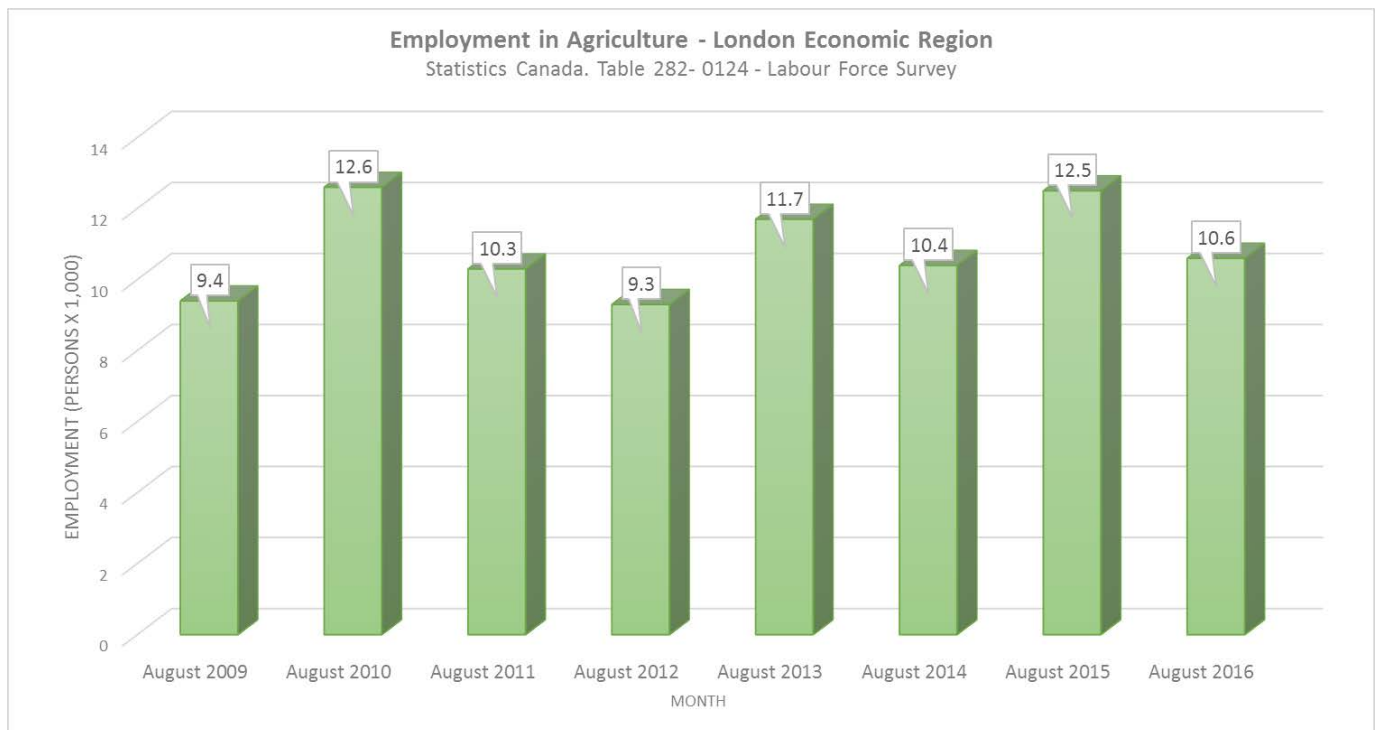


Introduction

Skills. Everyone has them, but how we use them is ever changing. According to industry research and consultation with area business associations during 2015, there are new businesses that are emerging and jobs are changing as a result. To help prepare people for employment, your Local Employment Planning Council has created a series of research reports to better prepare current and future job seekers for changing demands in occupations.

This is the first research report in a 5-part series that explores the evolution of skills required to be successful in key employment sectors. Each sector has been identified through discussion with local economic development offices and by examining the prominent sectors in our communities. Across Elgin, Middlesex, Oxford and London, it is clear that these five sectors play a significant role in our economy and our workforce:

- ❖ Agriculture
- ❖ Healthcare
- ❖ Manufacturing
- ❖ Transportation and Logistics
- ❖ Retail



Exploring Agriculture

Agriculture is undergoing a radical shift in productivity and innovation, which puts a strong pressure on its workforce to adapt. Farming is becoming much more sophisticated, which has also led to a drastic increase in the amount of record-keeping and reporting required by farmers. Technology and mechanization has led to even greater costs and barriers to entry, and the skills required to operate farming technology and machinery are becoming increasingly valuable.

How will the workforce of agriculture adapt? An aging workforce makes succession planning difficult, and the demands on a typical farmer still require hard work and long hours. With the added complexities of heavy reliance on immigrant workers for manual labour, how will the work of farmers change in the future?

The rate of change in the agricultural sector will continue to increase, especially in the evolution of environmental impact. However, the amount of government regulation and legally required record-keeping show no signs of slowing down. The challenge for the agricultural workforce will be to balance the added responsibilities in dynamic thinking with the enforced responsibilities demanding more time and energy.

Many agricultural businesses are also finding new opportunities for themselves within the agricultural sector. We expect to see a continued increase in value-added agriculture, including current local examples of shrimp, marijuana, ethanol, and tobacco.



Additionally, the change in Supply Management will have a large effect in dairy farming, and may see a significant number of dairy farmers adjusting or selling their businesses.

The array of careers in the agricultural sector is expanding, especially into the trades. Equipment maintenance, apprenticeships, and trades which can support the continued mechanization of farming will be useful in agriculture, and will produce many full-time jobs and entrepreneurship opportunities. Furthermore, the entrepreneurial skillset of selling product requires more understanding of stock markets, grey markets, and negotiation with buyers.

Locally, the University of Guelph (especially the Ridgetown College Campus) and Conestoga College are known for excellent agricultural training. Fanshawe College has launched (September 2016) a new Agri-Business Management program as part of their expansion of programs related to agriculture.

There has been an extensive amount of work on the evolution of workforce in the agricultural sector in the local region within recent years, much of which is referenced in this report.

PRIMARY CAREER PATHWAYS IN AGRICULTURE

Primary: Careers are directly involved with agriculture production

This chart is a general guideline to career titles used in the farming and agricultural industry. Further research will find additional careers and titles.

For more information...

Career Matters: www.ilc.org

Career Cruising: www.careercruising.com

Ontario Agri-Food Education Inc. (OAFE): www.oafe.org

Consult Guidance and Co-operative Education staff for more career information.

Educational Pathway Requirements Colour Coding

- Direct Entry Following High School Diploma
- Certificate/License/Special Training
- College Diploma
- University Degree

Aquaculture

- Farm Management
- Farm Worker
- Fishing Deckhand
- Fishing Shipper

Beekeeping

- Bee Pollinator
- Honey Bee Farmer
- Queen Bee Producer

Cattle (Beef)

- Animal Production
- Herdsperson

Cattle (Dairy)

- Dairy Production
- Dairy Herdsperson

Crops

- Harvester
- Irrigation Manager
- Planter
- Quality Control Specialist
- Sprayer Operator

Equine

- Facility Manager
- Stable Groom
- Show Groom

Equipment/Machinery

- Farm Equipment Mechanic
- Heavy Equipment Operator
- Welder

Fruit/Vegetables

- Custom Sprayer
- Growing Operator
- Harvester
- Irrigations Manager
- Planter
- Produce Buyer
- Quality Control Specialist
- Wholesale/Retail Sales

Horticulture

- Arbourist
- Assistant Grower
- Greenhouse Customer Service (retail/wholesale)
- Greenhouse Technician
- Horticulture Technician
- Irrigation Specialist
- Nursery Worker

Poultry

- General Poultry Labourer
- Hatchery Manager
- Operations Manager
- Quality Control Specialist

- Production Manager (Breeder/Layer)
- Production Manager (Broiler)

Seed

- Agronomist
- Agronomist - Field Sales

Sheep/Wool/Goat

- Animal Production
- Herdsperson

Swine (Pork)

- Production Supervisor (Finishing/Nursery)
- Production Supervisor (Sow Farm)

Tree Farmer

- Planter
- Pruner

Turf

- Turf Grass Manager
- Turf Labourer
- Turf Technician

Wine

- Vineyard Manager
- Vineyard Worker
- Viticulturist
- Wine Maker

Essential Skills...

The Building Blocks of Success

1. Reading Text

Sentences or Paragraphs.

2. Document Use

Graphs, lists, tables, blueprints, schematics, drawings, signs and labels.

3. Numeracy

Use numbers and quantitative terms.

4. Writing

Text, documents or computer typing.

5. Oral Communications

Give and exchange thoughts and information.

6. Working with Others

Working co-operatively with others. Self-discipline to meet work targets.

7. Continuous Learning

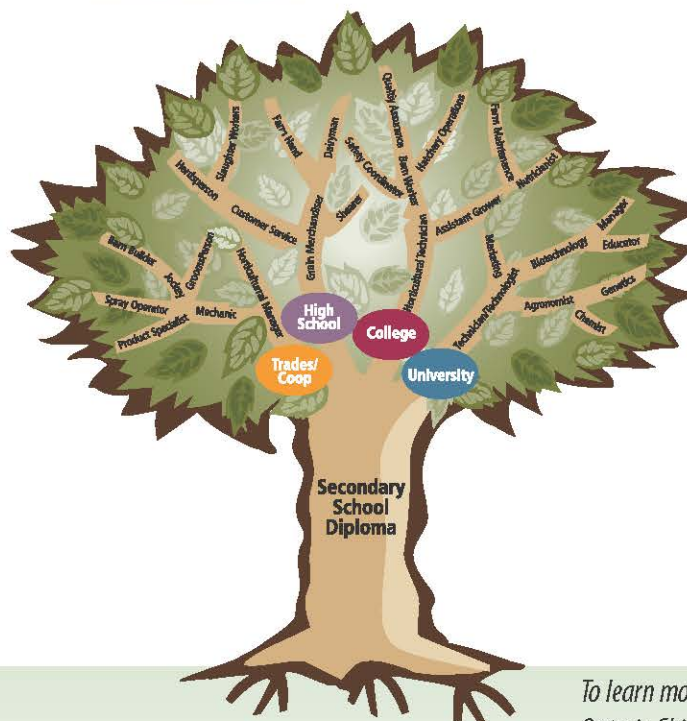
Participating in acquiring skills and knowledge.

8. Thinking Skills

Problem solving, decision making, critical thinking, job task planning and organizing, and ability to find information.

9. Computer Use

The variety and complexity of computer use.



To learn more about the essential skills visit:

Ontario Skills Passport <http://skills.edu.gov.on.ca/OSPWeb/jsp/en/login.jsp>

Is a career in agriculture for you?

Studying the Agricultural Workforce

In April 2011, the Elgin Middlesex Oxford Workforce Planning & Development Board published three reports on Agriculture and Labour Force Analysis. Each report was about 100 pages, and focused entirely on the agricultural sector within that county (Elgin, Middlesex and Oxford). Since then, an extensive amount of work on the agricultural workforce have been completed. Some reports include:

- Find Your Career in Agriculture, Worktrends, 2012
- Elgin Agri-food Business Expansion & Retention, November 2012
- Agriculture and Agri-food sector report, Worktrends, May 2014
- County of Middlesex, Agriculture Strategy Report & Recommendations 2015-2020, April 2015
- Invest In Canada, Perspective Agriculture: Food & Beverage Manufacturing
- Spotlight on Agriculture, Workforce Planning Board of Grand Erie, 2016
- MLHU Community Food Assessment Report, May 2016.



In addition, agriculture has been a major component in the local counties' strategic plans:

- Oxford Workforce Development Labour Market Refresh & Strategic Plan Review, February 2015
- Invest in Middlesex Strategic Plan, 2015-2018
- Elgin County Economic Development Plan, 2015-2018.

There are also other groups with large agricultural impacts and reports. For example, The Ag Business Update Newsletter is completed monthly by OMAFRA. Additionally, the South Central Ontario Region (SCOR) Economic Development Corporation gave three unique presentations on the state of the food industry in 2014.

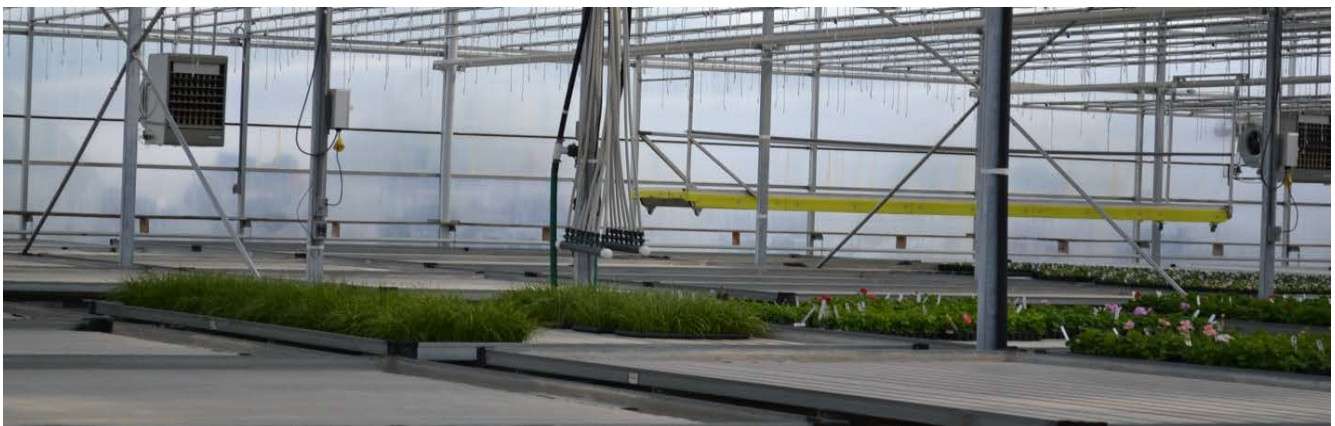
Finally, there are events that relate to the agricultural workforce. Some local examples include:

- Middlesex Agricultural Forum, February 11, 2016
- Middlesex Agricultural Tour, September 28 2016, Lucan-Biddulph & Thames Centre
- Middlesex Agricultural Tour, Spring 2017, Strathroy-Caradoc & Adelaide-Metcalf
- Agri-Net, Metroland Media Agriplex at Western Fair District, November 23, 2016.

Observations

Our observations came from speaking with informants, farmers and employers in the agricultural sector. Additional insights came from the reports mentioned in the previous page.

- Agriculture is undergoing a radical shift in productivity and innovation, which puts a strong pressure on its workforce to adapt.
- Farming is becoming much more sophisticated, which has also led to a drastic increase in the amount of record-keeping and reporting required by farmers.
- Technology and mechanization has led to even greater costs and barriers to entry, and the skills required to operate farming
- Our technology and machinery are becoming increasingly valuable.
- The “middle class” of farming is evaporating, as most farms now are quite large (greater than 200 acres) to improve scalability, or very small sustenance farms and small business farms (with potential for community gardens as well).
- An aging workforce makes succession planning difficult, and the demands on a typical farmer still require hard work and long hours.
- About 16 000 seasonal immigrant workers are coming to Southwestern Ontario through the FARMS program, nearly all of whom are employed to complete the farming tasks which require long, repetitive, manual labour.



Predictions

By definition, predictions are speculative. The following predictions are derived from looking at trends in the agricultural sector, and speaking with key members in the agricultural community.

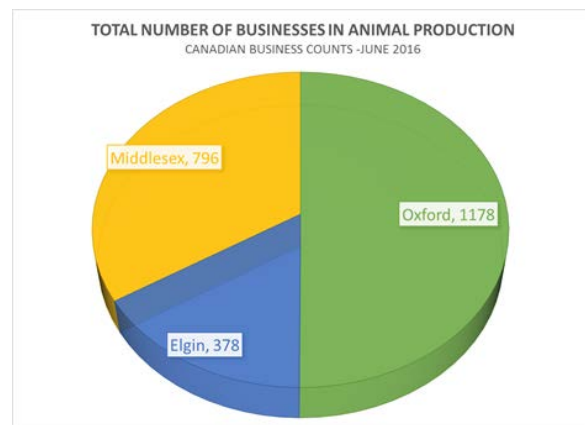
- Greenhousing will continue to grow, and has room for technological improvements in energy conservation.
 - CleanTech and GreenTech companies to establish markets in the agricultural sector.
 - Recent innovation has been made on increasing crop yield as opposed to crop height or size, and there could be further innovation to make the land even more productive.
 - There will be an increase in value-added agriculture, including current local examples of shrimp, marijuana, ethanol, and tobacco.
 - The change in Supply Management will have a large effect in dairy farming.
- The rate of change in the agricultural sector will continue to increase, leading to a sector that is becoming much more competitive with every passing year.
 - Measuring and controlling the environmental impact that farms produce will be a trend which leads to more governmental reporting, and also more room for CleanTech and GreenTech companies to establish markets in the agricultural sector.



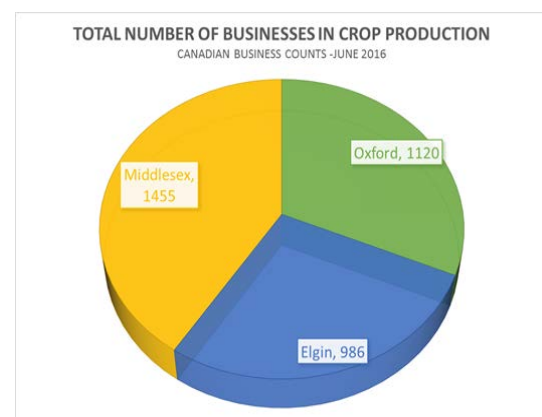
Changing & Emerging Skill Requirements

Our predicted changing & emerging skill requirements is based on the perspectives of farmers, key informants and employers in the agriculture sector, as well as our understanding of workforce changes and trends.

- Record keeping and government reporting, including a strong understanding of rules and regulations will be a necessity.
- Farmers must develop knowledge of the increasingly complex nutrients and technology, without sacrificing knowledge of the soil and basic farming principles.
- Due to the increase of immigrant employment completing the manual labour, more local employees' skills and requirements will be knowledge-based (although agriculture requires more labour now than ever before).
- Equipment maintenance, apprenticeships, and the trades will be useful in agriculture, which will produce full-time jobs and entrepreneurship opportunities.
- Selling product requires more understanding of stock markets, grey markets, and negotiation with buyers.



Over half of all animal production operations in the London Economic Region are located in Oxford County.



Crop production is spread across the London Economic Region with the greatest number of businesses located in Middlesex County.

Created by:



3 – 647 Wilton Grove Rd., London, ON N6N 1N7
Tel: 519.672.3499 ext. 103 Fax: 519.672.9089
www.localemploymentplanning.ca

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