



Dairy Sector Overall Report

Food Processing Skills Canada

Labour Market Information

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The opinions and interpretations in this publication are those of the author and do not necessarily reflect those of the Government of Canada.

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Food Processing Skills Canada

FPSC is your labour, skills and workforce development non-profit organization. Our job is to provide leadership in professionalizing the food and beverage manufacturing industry so that the most important resource - people - are the best in the world. We have developed a national skills strategy which is a proven long-term approach successfully utilized by other Canadian professional sectors. This strategy builds collaborations with industry, government, academia, unions, associations, community organizations and other stakeholders.

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DAIRY SECTOR

S U M M A R Y

The dairy processing industry is the third-largest food processing industry in Canada and the largest in Quebec. Canada's Dairy processing industry is diverse and produces a large number of distinct products grouped under three broad categories: fluid milk and fluid milk products, cheese and cheese products and butter and dry and canned dairy products. Producers of these products includes small, medium and large processors located in both rural communities and large urban centers.

This report provides a summary of findings from the Dairy Processing Labour Market Study conducted for the Food Processing Skills Council (FPSC). The objective of this study is to provide evidence-based assessments of current and future employment, hiring requirements and labour market conditions for Canada's dairy processing industry at national and regional levels. The information is meant to better inform government, employers and industry stakeholders about the degree and nature of labour market challenges faced by Canada's Baked goods manufacturing industry.

-  The dairy processing industry employed an estimated 24,928 people in 2021.
-  According to 2021 Statistics Canada business directory data, there were 392 dairy processing establishments across Canada that had at least one employee.
-  Overall, the Canadian dairy processing industry consists mostly of small-medium enterprises (SMEs) with only 2% of processors in the larger size range at 500 or more employees.
-  Dairy processing establishments are concentrated in Quebec and Ontario, accounting for 71% of the establishments and approximately 75% of the workers in 2021





Between 2021 and 2030, the rate of employment growth for the Canadian dairy processing industry is expected to be approximately 11% growing from approximately 24,900 employees in 2021 to 27,600 by 2030. As a result, the dairy processing industry will need to find an additional 9,300 new employees by 2030. This total demand will be 36% due to growth, and 64% due to replacements.



Labour market tightness is expected to persist through 2022 as economic recovery collides with reduced rates of labour force participation. This means that recruitment and retention will be particularly challenging for many occupations and roles through 2022.

Increased labour force participation is expected to ease recruitment challenges for several occupation groups by 2023, but then labour market tightness will return in 2028 onwards as labour force growth slows and there is increased competition from other industries.

By 2028, recruitment challenges will be most severe for occupations and roles related to:

-  Management
-  Logistics
-  Some Technicians
-  Drivers



Who will the dairy processing industry need to find?

On an annual basis, the industry will need to recruit

- 344 new managers, sales, logistics and admin staff
- 146 new entry-level labourers
- 244 skilled/semi-skilled operators and managers
- 146 trades people



DAIRY SECTOR

Part 1 SECTOR OVERVIEW AND CURRENT CONTEXT



1.0 INTRODUCTION

Importance of LMI

Food Processing Skills Canada (FPSC) is pleased to present this report to the dairy processing industry, government decision makers and other industry stakeholders. This summary report focused specifically on the dairy processing industry is one in a series of labour market information (LMI) studies that have been designed to be a resource for all. The report covers details on the structure of the industry, current challenges and opportunities, and an overview of the important role of labour in ensuring the industry's success now and in the future.

Accurate and timeline labour market information (LMI) has significant benefits for industry, decision-makers and stakeholders such as understanding the composition of the current workforce and determining estimates of future supply and demand to inform workforce planning. This report demonstrates that labour challenges and concerns are currently top of mind for the dairy processing industry. It outlines the evidence and storyline that estimates labour challenges increasing for many key occupations, particularly towards the end of the current decade.

Canadian dairy processors are the link between the farms and tables for a multitude of products. The structure of the industry is such that the vast majority of dairy products consumed by Canadians are produced by Canadian dairy processors, with limited imports. Understanding the importance of the industry is relatively easy – understanding the challenges that the industry faces to have continued success and growth is more difficult. Understanding challenges using a solution-focused lens requires in-depth, detailed knowledge of the labour situation overall and by subsector within the industry. This LMI study provides an important step towards this more in-depth understanding.

Focusing specifically on the Canadian dairy processing industry, this study provides evidence-based assessments of current and future employment, hiring requirements and labour market conditions at national and regional levels. In addition, potential solutions and opportunities to address identified challenges are presented within the context of the overall Canadian food and beverage processing sector.

**Canadian dairy processors
are the link between the
farms and tables for a
multitude of products.**



DAIRY SECTOR

LMI REPORT SERIES OVERVIEW

This report on the Canadian dairy processing industry is one in a series of LMI reports produced by FPSC. In addition to this national summary report, FPSC has developed 11 brief region-specific reports that focus on LMI within ten areas in Canada with concentrated dairy processing employers. The recent LMI report on the overall Canadian food and beverage processing industry (At the Crossroad to Greatness, 2021) provides an excellent context for the current report. Even though the dairy processing industry is quite distinct as a sub-sector, there are some trends and insights from the overall report that could be equally applied to the dairy processing industry. Finally, there are other sub-sector specific LMI reports available that may be of interest in understanding the comparability of the dairy processing industry with other sub-sectors such as meat processing, fish & seafood processing, baking, and other food industry.



The 11 regional reports focus on the following geographic locations that have higher concentrations of processors and those employed by the dairy processing industry.

🍁 Burnaby BC

🍁 Calgary AB

🍁 Edmonton AB

🍁 Winnipeg MB

🍁 Kitchener ON

🍁 Toronto ON

🍁 Belleville ON

🍁 Montreal QC

🍁 Granby QC

🍁 Quebec-Lévis QC

🍁 Halifax NS



METHODOLOGY

This report was developed using various data sources including both primary and secondary research to develop profiles of the Canadian dairy processing labour market and projections of labour demand and supply over the upcoming decade. Methods were specifically selected to complement one another in providing an understanding of the dairy processing labour market from multiple angles.

Key methods as outlined in the table included a national survey of dairy processors in 2020, extensive analysis of industry and workforce data from Statistics Canada (e.g., Labour Force Survey, Census), review and analysis of other sources of industry data (e.g., OECD, Industry Canada, Agriculture and Agri-Food Canada), scans of training and education programs, and interviews with industry associations and employers.

Method	Objective	Approach
Review of Statistics Canada Reports and Data	Profile the industry, estimate current and potential future contribution to the economy, and project growth in production and employment.	In-depth analysis of most current and relevant labour market statistics and population data.
Review of other primary and secondary data sources	Complement the review and analysis of Statistics Canada data to estimate potential labour demand and identify data gaps. Identify key industry trends of most relevance to the labour market.	Review and extract key data and information from the most relevant government, private and NGO reports (e.g., OECD, Industry Canada, Agriculture and Agri-Food Canada, Advisory Council for Economic Growth, FPSC)
Survey of Dairy Processors	Identify labour market challenges and related issues (e.g., HR challenges, retention and recruitment strategies)	89 dairy processors were surveyed using online and telephone interviewing techniques.
Identification of Study Programs for Dairy Industry	Profile the range of programs available and to help identify potential gaps related to employer needs.	Scan of approximately [[XXX]] dairy-related programs and courses offered by Canadian post-secondary institutions, private career training organizations, industry associations and secondary vocational training.
Interviews and Consultations with Industry Stakeholders	To collect qualitative information, views and perspectives on key labour market challenges and solutions for the dairy processing industry.	Consultations and interviews conducted with provincial dairy processing associations, dairy processors, and other industry stakeholders



2.0 SECTOR CONTEXT AND BACKGROUND

Sector Overview and Structure




Dairy manufacturing comprises companies or cooperatives that are primarily engaged in processing raw milk for beverage use, and manufacturing cream and other processed dairy products, such as butter cheese and ice cream. The industry also includes the production of dairy product substitutes (e.g., soy, almond, oat milk, etc. and their derived products). Although dairy processing is closely linked to raw milk production by dairy farmers, the dairy processing industry is defined according to when the raw milk arrives at a processing plant bay for unloading.

Dairy processing plants are generally located close to where farm milk production is concentrated: producers of fluid milk tend to be located on the fringe of urban areas to serve the consumer market, while manufacturers of products with a longer shelf life tend to be concentrated closer to the raw milk supply to keep costs low and a reliable access to their main input.

There is large diversity in the types of establishments observed in the industry, ranging from private companies to multinational conglomerates, dairy cooperatives and small companies with few employees.

Dairy Product Manufacturing (NAICS 3115)

Following the North American Industrial Classification System (NAICS) 2017, the sector includes:

-  Milk processing (e.g., bottling, homogenizing, pasteurizing, vitaminizing), and manufacturing of non-alcoholic dairy products (e.g., eggnog), sour-cream and sour-cream based dips, whipped toppings, yogurt, cottage cheese, and dairy substitutes.
-  Manufacturing of butter, cheese, cheese-based products and dry and condensed dairy manufacturing (e.g., whey, dips, non-dairy creamers, mixes) including substitutes (e.g., almond milk, soymilk and derived products). *Margarine and margarine-butter blends as well as cheese-based salad dressing manufacturing are excluded.*
-  Ice cream and frozen dessert manufacturing, including sorbets, frozen yogurt, frozen pops (e.g., flavoured ice, fruit, pudding and gelatin). *It excludes manufacturing of frozen baking products.*

The Canadian Other Food Processing Industry is largely composed of SMEs with fewer than 200 employees (98%)



The Canadian dairy industry is heavily regulated. Regulations include food safety requirements as well as a complex supply management system that establishes production quotas, controls pricing, and sets import tariffs.

Canadian Dairy Commission/Canadian Milk Supply Management Committee

- Determines the national milk quota on a monthly basis
- Determines support prices for butter fat and SMP annually

Provincial Marketing Milk Boards

- Receive a quota based on historical market shares
- Determine how much can be produced by an individual quota holders
- Have price-setting authority and collectively negotiated with dairy farmers and using support prices as reference
- Purchase all milk from dairy farmers and sell directly to processors

Dairy Farmers

- May purchase or sell individual production quotas at monthly auctions
- Sell product to provincial milk marketing board at a blended prices (determined within regional pools)

Dairy Processors

- Purchase inputs from the provincial marketing board
- Set prices of dairy products for distributors and retailers

Retailers

- Set the final retail price to consumers









DAIRY SECTOR

Different Types of Milk Products

Milk products are generally divided according to fluid milk products and industrial milk products.







Fluid Milk - used for beverages such as milk (3.25%, 2%, 1%, skim), buttermilk, flavoured milk (chocolate and other flavours, and eggnog.

Industrial Milk – about 70% of milk production and is used in a product other than fluid milk. These can include:

-  **Cream products:** light cream, half and half, table cream, whipping cream and sour cream.
-  **Cheese products:** cheddar, mozzarella, pizza and specialty cheese, cottage cheese.
-  **Butter**
-  **Ice cream products:** hard and soft ice cream, ice cream mix, sherbet, water ices, milkshake and other mixes.
-  **Milk powder products:** skim milk powder, buttermilk powder, whey powder.
-  **Concentrated milk products:** evaporated, condensed and other milk products

Cheese production in Canada exceeds 1,400 different kinds...

Cheeses are classified according to moisture content. Organized by their share of total production, these are:

-  **Firm cheese** which is firm and elastic and represents 35% of production (50%-62% moisture)
-  **Soft cheese** represents 26% of production (67%- 80% moisture)
-  **Semi-soft** is generally soft and creamy and represents 22% of production (62%-67% moisture)
-  **Fresh-cheese** has a limited shelf-life and is consumed as soon as possible and represent 11% of production (80%+ moisture)
-  **Hard-cheese** can aged and stored for several years and represents 4% of production (under 50% moisture level)
-  **Blue-veined cheese** is commonly known as blue cheese and represents 4% of production.



Voices of the Canadian Dairy Processing Industry

Key stakeholders in the Dairy Processing Industry are the national and regional industry associations. These organizations on behalf of their members consult, lobby and conduct research for the dairy processing industry in Canada:

-  The Dairy Processors Association of Canada at the national level (<http://www.dpac-atlc.ca/>)
-  The Western Dairy Council is a non-for-profit trade association representing dairy processors from British Columbia, Alberta, Saskatchewan and Manitoba. (<https://www.westerndairycouncil.com/>)
-  The Ontario Dairy Council (<https://ontariodairies.ca/frameset/index.htm>)
-  The Conseil des industriels laitières du Québec Inc. (<https://cilq.ca/>)
-  The Atlantic Dairy Council is the industry association for dairy processors in Nova Scotia, PEI, Newfoundland and New Brunswick (<https://www.adcrecycles.com/about.htm>)

Industry Research and Development

There are several research and development centers and programs funded by public and private sources, which aim to develop new and differentiated products to keep the dairy processing industry competitive. Several are linked to postsecondary institutions and work in multidisciplinary teams directly with industry.



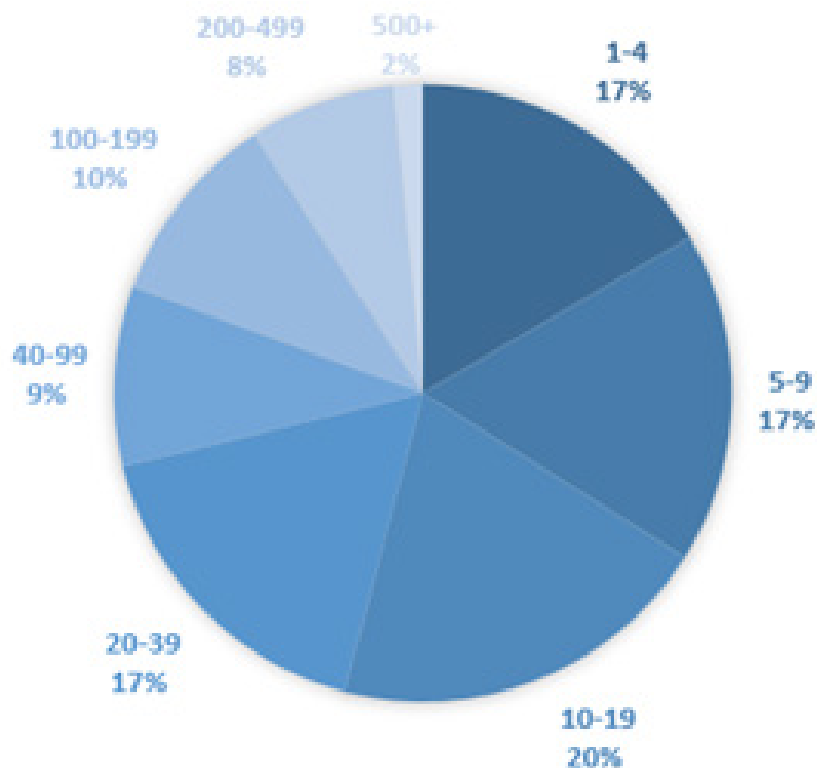
3.0 CURRENT SECTOR PROFILE

Establishment Profile

How big is the Canadian Dairy Processing Industry?

According to 2021 Statistics Canada business directory data, there were 392 dairy processing establishments across Canada that had at least one employee. This count includes sole proprietors with at least one employee and micro-businesses (less than 10 employees) which combined make up 34% of these businesses. Overall, the Canadian dairy processing industry consists mostly of small-medium enterprises (SMEs) with only 2% of processors in the larger size range at 500 or more employees. The industry employed 24,928 workers in 2021

Dairy Processors by Size (# employees)



The Canadian Dairy Processing Industry is largely composed of SMEs with fewer than 500 employees (98%).



What is the composition of the “average” Canadian Dairy Processor?

The “average” composition of a dairy processor shows that the most employees are entry level labourers (on average 40.9), and not surprisingly also represent the highest number of current vacancies and new hires. The next most numerous occupation group (on average 16.2) is among management, finance, sales and administration. Smaller averages are found for skilled/semi-skilled process control and machine operators (5.7), other occupations (4.3) and quality control, assurance (2.9).

	Entry Level Labourers	Skilled/Semi-Skilled Process Control + Machine Operators	Management, Finance, Sales + Administration	Quality Control + Assurance	Any Other Occupations
# of people employed (n=89)	40.9	5.7	16.2	2.9	4.3
# of current vacancies in total (n=37)	2.6	0.8	0.5	0.4	0.2
# of people hired in 2019 (n=37)	16.3	1.2	1.1	0.8	0.8

Source: FPSC Survey of Employers 2020 (n=89; n=37)
(DATA LINK – SLIDE #8 – PRISM Dairy Survey Deck – July 2020))

The “average” composition of a dairy processor shows that the most employees are entry level labourers.

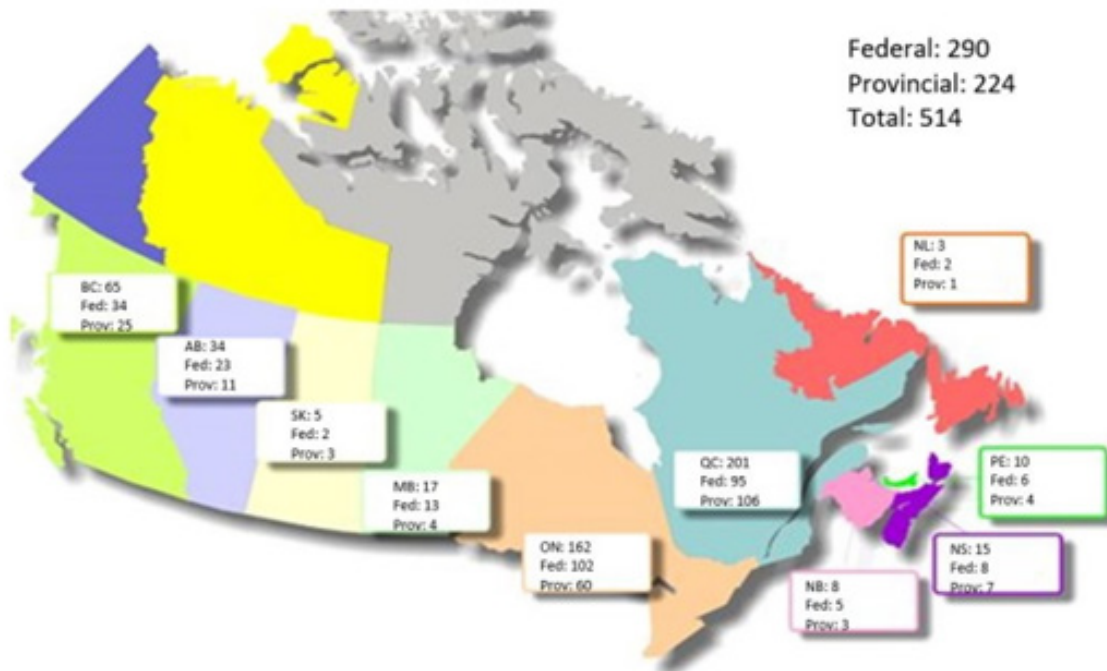


DAIRY SECTOR

Where is the Canadian Dairy Processing Industry located?

Dairy processing establishments are concentrated in Quebec and Ontario, accounting for 71% of the establishments and approximately 75% of the workers in 2021. Dairy processing plants are generally located close to where farm milk production is concentrated: producers of fluid milk tend to be located on the fringe of urban areas to serve the consumer market, while manufacturers of products with a longer shelf life tend to be concentrated closer to the raw milk supply to keep costs low and a reliable access to their main input. Milk processing facilities also tend to follow population concentrations. The Canadian dairy processing industry is primarily concentrated in Ontario and Quebec, and the two Western provinces (BC and AB). Ontario, the most populous province, has 162 dairy processing facilities and approximately 9,600 employees in 2018. In Quebec, there are 201 dairy processing facilities with 9,100 employees, the province with the largest number of dairy farms.

Federally and Provincially Licensed Dairy Processors employees)



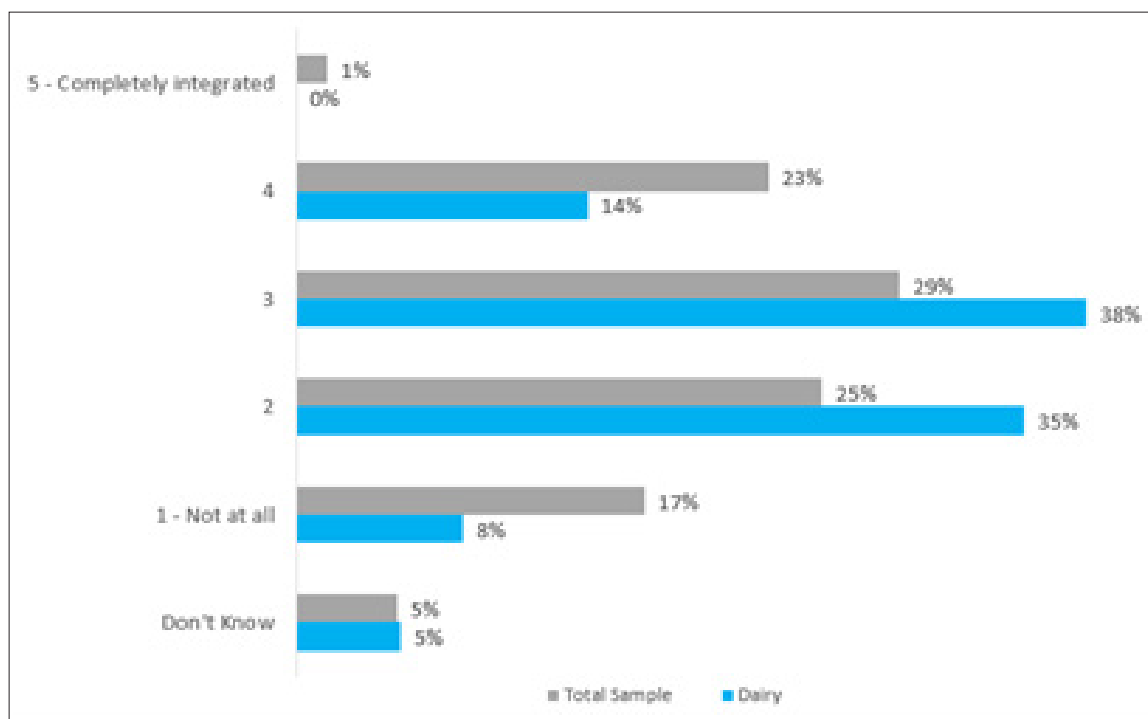
Source: Canadian Dairy Information Centre, Statistics Canada



Technology and Automation in the Dairy Processing Industry

Different technological advancements and innovations have been observed overtime as the dairy processing industry has evolved. The mechanization, automation and computerization of processes are observed primarily in large operations, while smaller producers may have slower rates of technology adoption due to costs and lack of economies of scale. Product innovation is at the heart of the industry, as it is a source of differentiation and increased competitiveness. For instance, membrane technology uses membrane filters of different structures at different pressures to separate milk components (e.g., whey proteins, lactose, minerals, bacteria and other organisms). This technology extends the product's shelf life, standardizes its composition, minimizes waste while increasing yield and can be more energy efficient. Another example is a relatively newly developed procedure known as supercritical extraction that is able to remove cholesterol from milk fat, which leads to the development of low-cholesterol soft spread butter. Lab grown milk and dairy products, already being sold in the United States, may not currently be as attractive for Canadian consumers, but may gain popularity given their potential environmental benefits as the case for lab-grown proteins is built. Cheese, ice cream and frozen dessert technologies are also advancing, introducing new low fat or sugar free options, unique flavours, or increasing product homogeneity requiring less equipment to produce.

To what degree has your business made investments in automation and digitization of production processes?



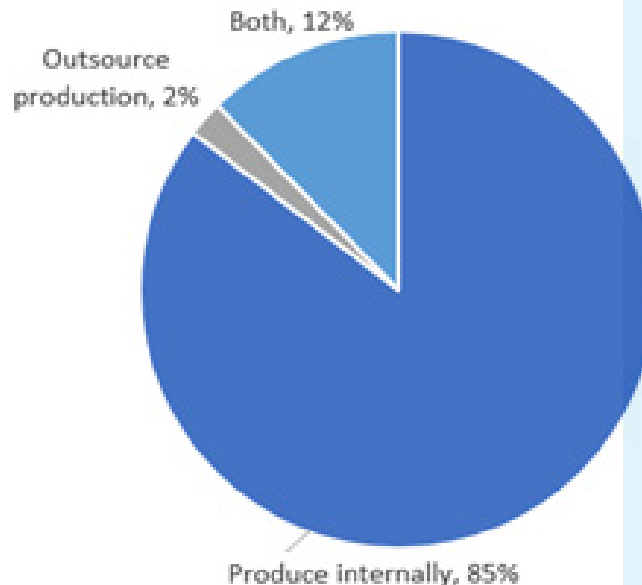
Source: FPSC Survey of Employers 2020 (n=37)
(DATA LINK – SLIDE #21 – PRISM Dairy Survey Deck – July 2020)

On the survey of employers, approximately one-half (52%) of dairy processors reported moderate to higher levels of investments in automation and digitization of production processes. Compared to the overall food and beverage processing sector, the dairy processing reports overall moderate levels of investment with lower proportions of high investments, but 92% making some investment vs. 83% of the overall sector.



Production Facilities and Outsourcing of Production

On the survey of employers, it was highlighted that processors focus primarily on internal production in their own facilities (85%), with very few outsourcing their production (2%), while some blended both internal and outsourcing of production (12%). This would indicate that the labour requirements and challenges related to production are for the most part being experienced directly by the producers within their own facilities compared with some other manufacturing sectors that see considerably higher rates of outsourcing.








Source: FPSC Survey of Employers 2020 (n=89)
(DATA LINK – SLIDE #5 – PRISM Dairy Survey Deck – July 2020)

OCCUPATIONS PROFILE

Key Occupations








Occupations in the dairy processing are quite diverse, including equipment operators, laboratory technicians, food scientists, tanker and other truck drivers, engineers, programmers, accountants, sales and marketing professionals, and policy analysts.

Using the National Occupation Classification (NOC) system, five key occupations are identified for the dairy processing industry which are also common to various sub-industries in the food and beverage processing sector:

-  Labourers in food and beverage processing (NOC 9617)
-  Process control and machine operators, food and beverage processing (NOC 9461)
-  Testers and graders, food and beverage processing (NOC 9465)
-  Supervisors, food and beverage processing (NOC 9213)
-  Shippers and receivers (NOC 1521).



Other occupations that are relevant to the sector include:

-  Dairy plant managers (NOC 0911 Manufacturing managers)
-  Dairy chemist (NOC 2112 Chemists)
-  Dairy bacteriologist or dairy scientist (2121 Biologists and related scientists)
-  Dairy plant engineer (NOC 2148 Other professional engineers)
-  Dairy products technicians or technologists (NOC 2221 biological technologists or technicians)
-  Dairy products inspector (222 Agricultural and fish products inspector)
-  Dairy equipment repairer (7311 construction millwrights and industrial mechanics).

Key Occupations and Job Titles

NOC Code	NOC code label	Common Job Titles in Dairy Processing
9617	Labourers, food and beverage processing	<ul style="list-style-type: none"> • Dairy helper • Production helper • Cheese factory worker • Dairy sampler
9461	Process control and machine operators, food and beverage processing	<ul style="list-style-type: none"> • Cheese grader • Milk grader • Product tester • Dairy cream grader • Moisture content tester- dairy products • Milk dryer • Powdered milk dryer operator
9465	Testers and graders, food and beverage processing	<ul style="list-style-type: none"> • Cheese blender • Cheese maker • Dairy plant machine operator • Dairy products specialty maker
9213	Supervisors, food and beverage processing	<ul style="list-style-type: none"> • Dairy products processing foreman/woman • Dairy plant foreman/woman • Food testing supervisor • Ice cream processing assistant supervisor • Milk processing foreman/woman
1521	Shippers and receivers	<ul style="list-style-type: none"> • Milk and cream receiver • Distribution clerk • Supply chain assistant • Stock handler • Delivery clerk



DAIRY SECTOR

Levels of Dairy Processing Occupations

There is room for a wide variety of skill levels and experience in the dairy processing industry. Skill levels range from foundational skill level dairy plant labourers who as entry level workers are not usually required to have specific experience or education, up to management and executive leadership roles that require specific experience and post-secondary requirements.

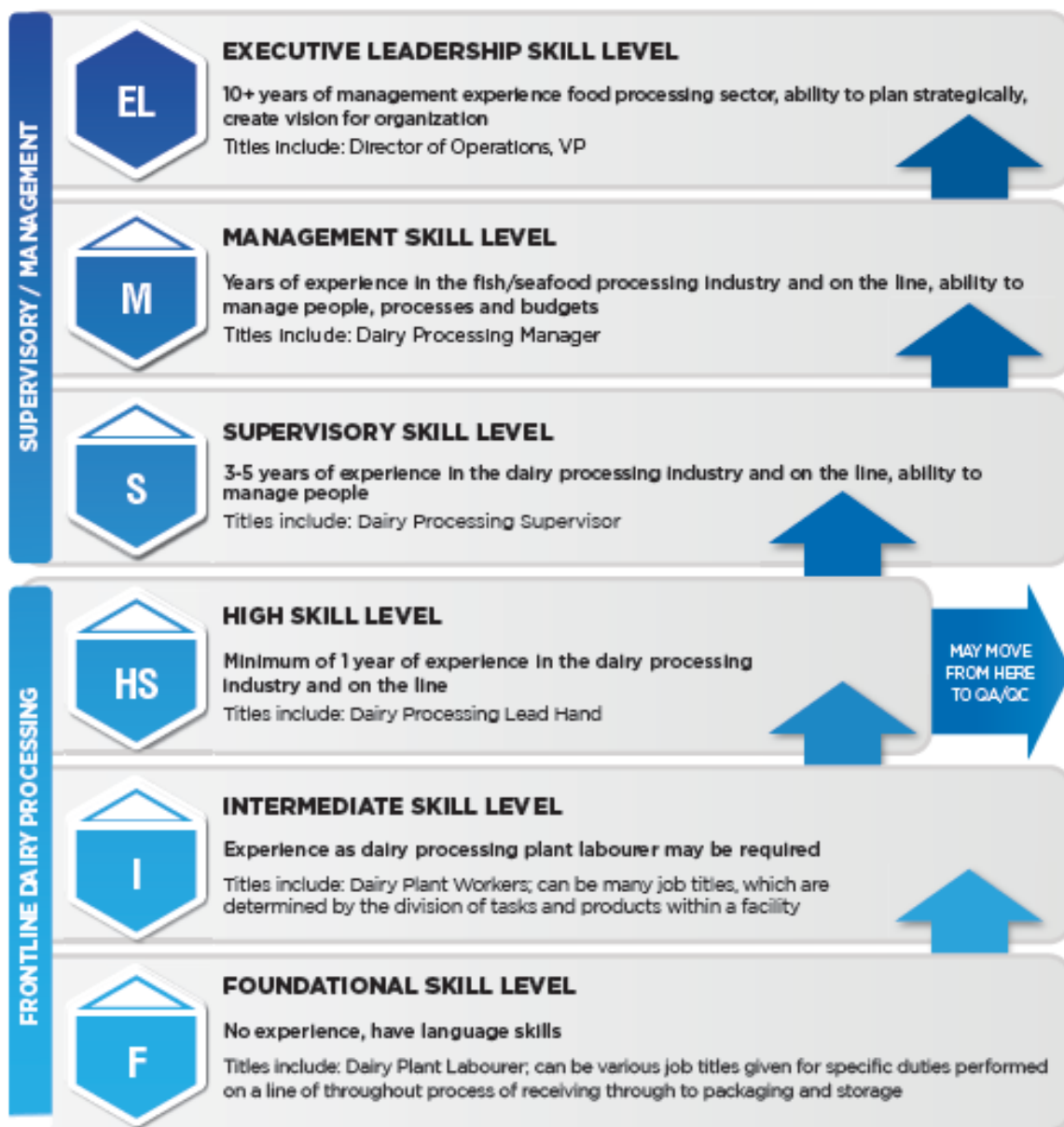
SAMPLE TITLES		EXPERIENCE/EDUCATION
	SENIOR EXECUTIVE LEADERSHIP  Director of operations/production	 7-10 years of experience in the dairy processing industry is the most significant requirement
	MANAGEMENT  Dairy plant manager  Production manager	 Minimum of 5 years of experience in dairy processing industry  Degree or diploma in food science may be considered an asset  Leadership experience
	SUPERVISORY  Dairy Processing Supervisor	 3-5 years of experience in dairy processing industry  High school diploma
	HIGH-SKILLED  Dairy processing foreperson/lead hand  Milk processing plant foreperson/lead hand  Milk production foreperson/lead hand  Dairy products processing foreperson/lead hand  Ice cream making foreperson/lead hand	 Minimum 1 year of experience as dairy processing worker  High school diploma may be required
	INTERMEDIATE  Dairy processing plant workers and machine operators <i>Various titles given for specific duties performed on the line or throughout the process of handling and packaging</i>	 Experience as a labourer may be required  Some High School education may be considered an asset
	FOUNDATIONAL  Dairy Plant Labourers <i>Various titles given for specific duties performed on the line or throughout the process of handling and packaging</i>	 No experience required  Some high school education may be considered an asset



Career Pathways

A career ladder can be helpful to educate potential workers about the opportunities and career pathways within the dairy processing sector. The career ladder is a helpful tool for employers to attract, recruit and retain productive and skilled workers.

As the graphic illustrates, workers within High Skill Level occupations (such as Lead Hand) may move to the Quality Control/Quality Assurance Department and assume a role of Quality Control Inspector. This position is still a production/processing line position, but the Quality Control Inspector performs quality control tests and inspections on the processing line.



DAIRY SECTOR

WORKFORCE PROFILE

Workforce by Occupation

One of the largest occupation groups in the dairy processing industry is management, finance, sales and administrative occupations (37%). A slightly smaller sized occupation group is skilled and semi-skilled workers (31%). Other sizeable occupation groups include trades (13%) and entry-level labourers (10%).

Dairy Processing Employment by Occupation Group

Occupation Group	# Employed
Management, Finance, Sales, Admin	9,190
Skilled/Semi-Skilled	7,615
Trades	3,757
Entry-level Labourers	2,457
Product Development and QC	1,391
Other	518
Total	24,928

Source: Statistics Canada, Census 2016

Management, finance, sales and administrative occupations (37%) are the largest occupation groups in the dairy processing industry.



WORKFORCE PROFILE

Workforce Age & Gender Distribution

Overall, the dairy processing workforce according to 2016 data are relatively spread out across the working traditional working age groups of 25 to 64 years of age. Approximately one half of the workforce (47%) is aged 45 years or older, with the other one half under the age of 45 (53%).

Across age groups, the majority of workers are male with two-thirds overall (66%) of the workforce. In the youngest age group of 15-24 year olds there is a proportionally larger group of females (40%) compared with the other age groups.

Examining recruitment and retention according to gender may be worthwhile for dairy processors to consider as they face increasing challenges of meeting their workforce needs within a ever-tightening labour market.

Dairy Processing Workforce by Age and Gender (2021)

Age Group	% Group	% Male	% Female
15 -24	13%	60%	40%
25-34	18%	67%	33%
35-44	22%	65%	35%
45-54	25%	68%	32%
55-64	20%	69%	31%
65 +	2%	75%	25%
OVERALL	100%	66%	34%

Source: Statistics Canada, Census 2016



Workforce Education Levels

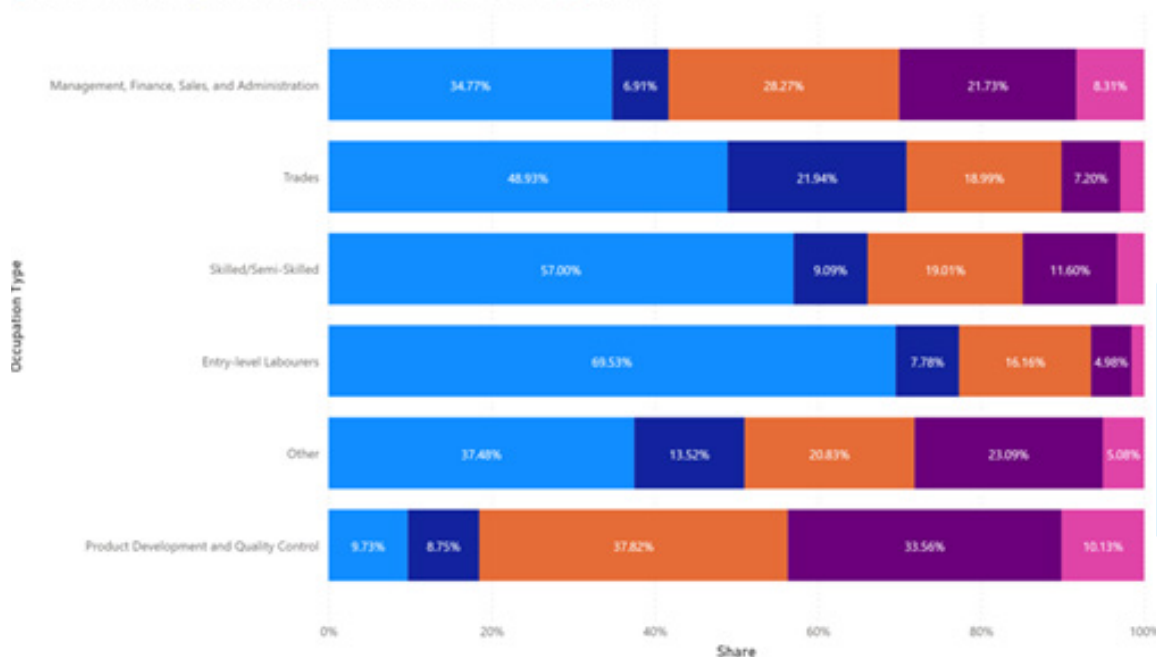
The education credentials among the current workforce vary considerably within the industry and within occupation group. Entry-level labourers are the least likely to have post-secondary certificates or diplomas (30%), followed by those working in the skilled/semi-skilled occupation group (43%). Those in occupation groups such as product development and quality control have high rates of post-secondary certificates and diplomas (approximately 90%). Similar rates of post-secondary credentials are found among those working in management, finance, sales and administration (65%) and other occupations (63%).

Many positions within the dairy processing industry also require additional experience, certification and skills sets besides formal education credentials. For example, certain processor operations in the dairy sector require higher skills than other operating positions. In particular, occupations such as pasteurizer operators, CIP operators and raw milk receivers" require acute document use and numeracy skills; are required to communicate and collaborate with on-site inspectors; require enhanced thinking skills and perform more high-risk, critical operations in relation to HACCP and food safety.

Education Credentials by Occupation Type

Education Credentials by Occupation Type

■ No Certificate Or Diploma ■ Apprenticeship ■ Certificate or Diploma ■ Undergraduate ■ Postgraduate



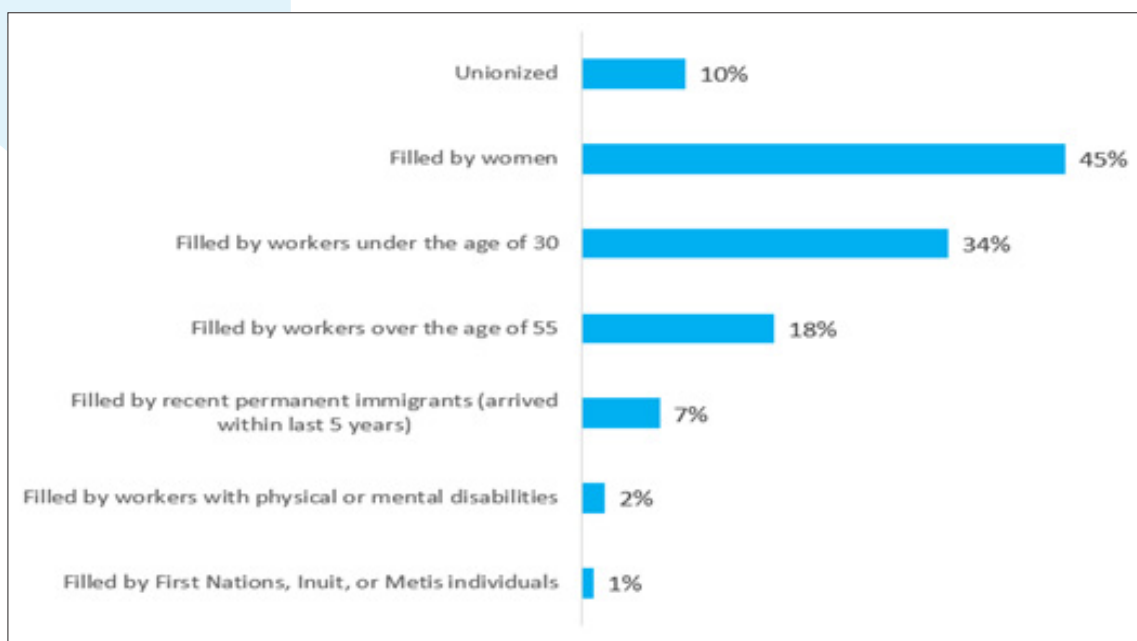
Source: Statistics Canada, Prism Economics and Analysis 2021
(DATA LINK – SLIDE #15 – PRISM Dairy Outlook Deck – December 2021)



Workforce Diversity

When dairy processors were asked to describe their workforce, they reported on average 45% of paid positions were filled by women which is slightly higher than the overall sector average of 40%. Small proportions of paid positions were filled by recent immigrants (7%). Participation by Indigenous workers is relatively low in the industry at 1%. Persons with disabilities are noted as filling on average approximately 2% of paid positions.

On average, in 2019 how many paid positions were...?



Source: FPSC Survey of Employers 2020 (n=89)
(DATA LINK – SLIDE #7 – PRISM Dairy Survey Deck – July 2020))

**Persons with disabilities
are noted as filling on
average approximately
2% of paid positions.**



Part 2

UNDERSTANDING DEMAND

* HOW MANY WORKERS DOES
THE SECTOR NEED?



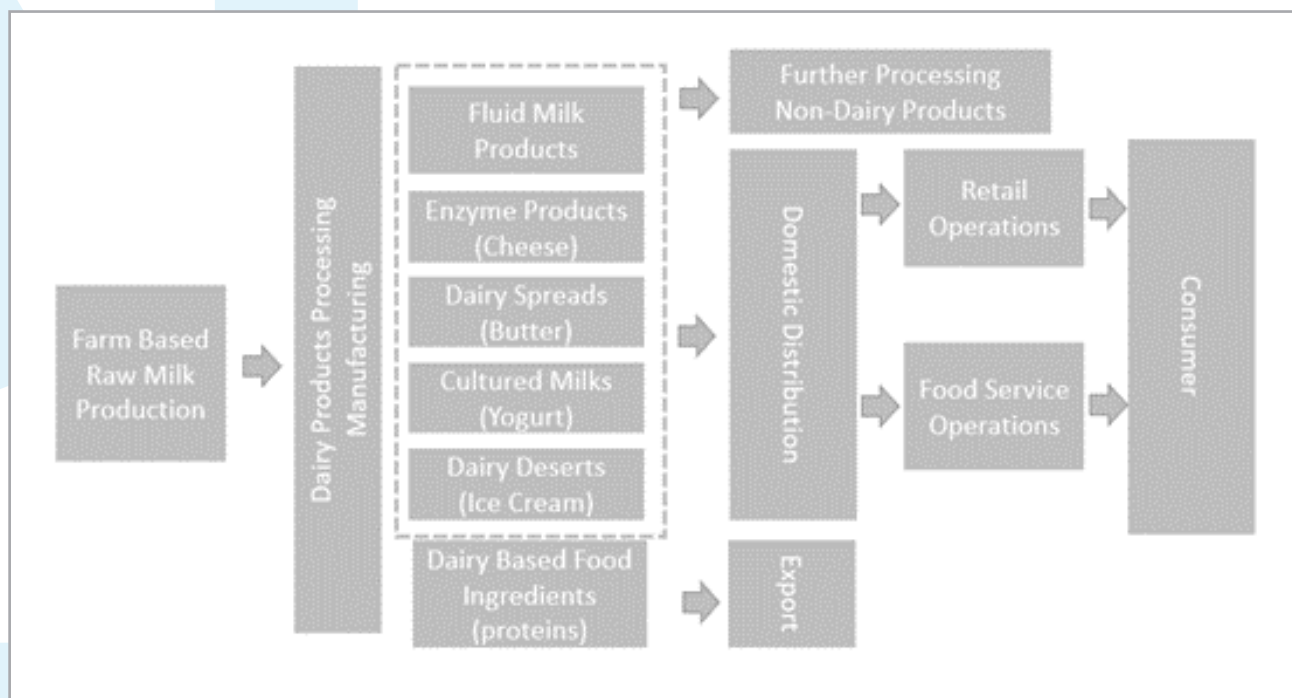
4.0 OVERVIEW OF DEMAND DRIVERS FOR DAIRY SECTOR

The demand drivers for the dairy processing sector are relatively complex and integrated with various factors. In attempting to understand and quantify demand estimates and projections, the study team examined numerous trends related to the key demand drivers outlined for the various industry components. The key areas of focus include:

The key areas of focus include:

- 🇨🇦 Consumption and related consumer preference trends
- 🇨🇦 Predictions and trends attributable to the various international trade agreements that implicate dairy processing
- 🇨🇦 Standard economic indicators such as GDP growth
- 🇨🇦 Population demographic trends of an aging population
- 🇨🇦 Industry output trends according to main product areas

Demand Drivers for the Dairy Processing Industry



DAIRY SECTOR

CONSUMPTION AND CONSUMER PREFERENCE TRENDS

Overall Consumption Trends

Overall, the consumption of milk dairy products is on a downward trend when viewed from a historical perspective; however, this is not the case when examining specific product areas (for example fluid milk vs. variety cheese consumption). Reasons for the changes and trends in dairy product consumption are complex and likely due to multiple factors. Some potential contributing factors include:

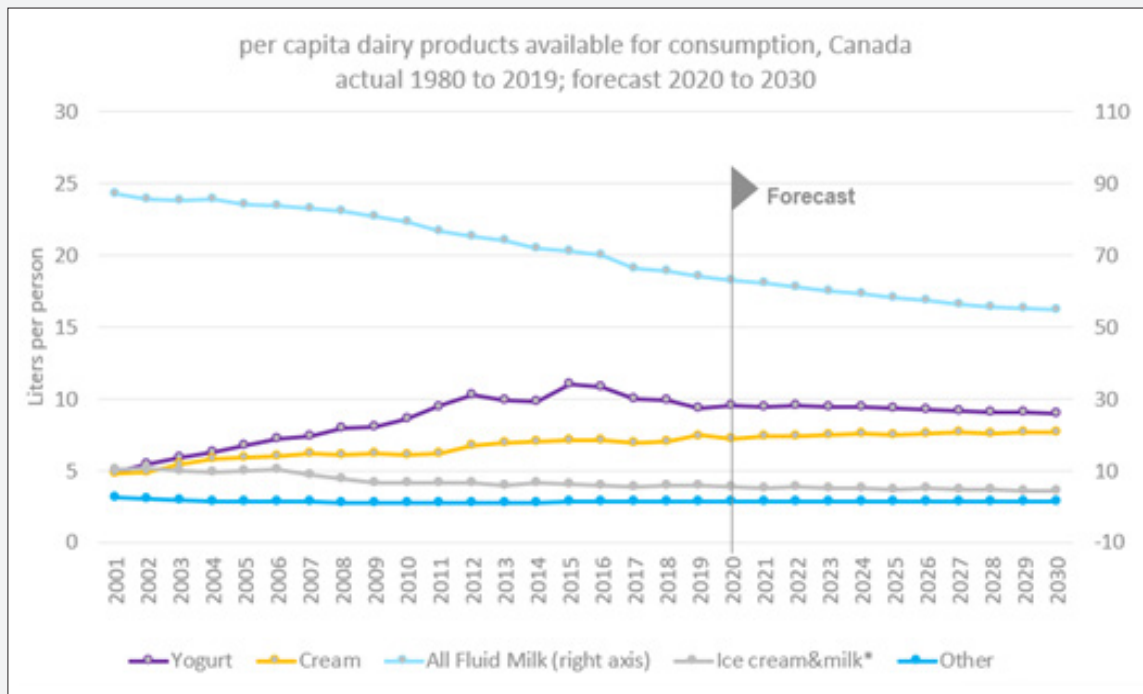
aging and more ethnically diverse population who are less likely to drink milk

increase in dairy milk substitutes and dairy alternatives available to consumers, such as soy, oat and almond milks

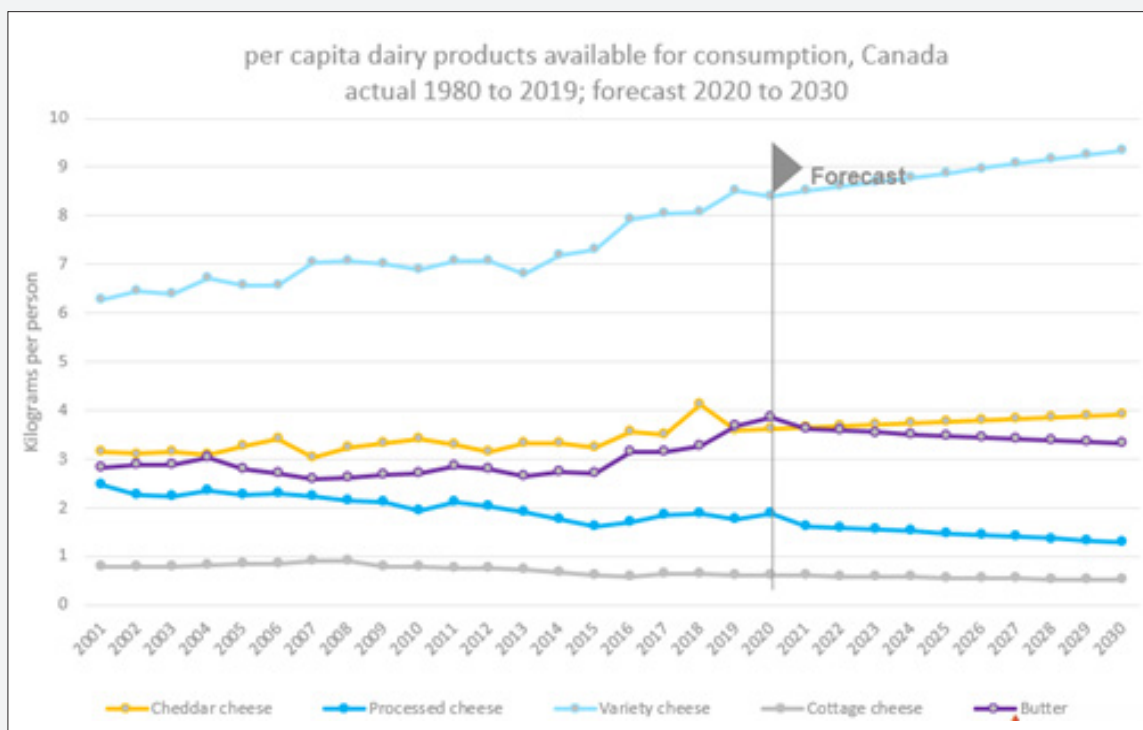
increase in people who are lactose intolerant or who have specific dietary preferences

Dairy Product	Trend
Fluid Milk	<ul style="list-style-type: none"> steady decline in consumption 98 litres per person (1980) → 63 litres per person (2019) estimated to decline further 13% to 55 litres per person (2030)
Cream	<ul style="list-style-type: none"> dipped in 2020, but expected to recover and increase by 6% by 2030
Yogurt	<ul style="list-style-type: none"> peaked at 11 litres per person (2015); coincides with dip in ice cream consumption has declined since 2015, but expected to be relatively constant at 9 litres per person (2030)
Ice Cream	<ul style="list-style-type: none"> Modest downward trend
Cheddar Cheese	<ul style="list-style-type: none"> 3.1 kilograms per person (2001) → 3.7 kilograms per person (2019) spiked to 4.1 kilograms per person (2018) expected to increase by 8% by 2030
Variety Cheeses	<ul style="list-style-type: none"> 6.8 kilograms per person (2013) → 8.5 kilograms per person (2019) expected to increase by 11% by 2030
Processed Cheese	<ul style="list-style-type: none"> 2.5 kilograms per person (2001) → 1.6 kilograms per person (2015)
Cottage Cheese	<ul style="list-style-type: none"> 0.9 kilograms per person (2001) → 0.6 kilograms per person (2019)





Source: Statistics Canada, Prism Economics and Analysis 2021
(DATA LINK – SLIDE #15 – PRISM Dairy Outlook Deck – December 2021)



Source: Statistics Canada, Prism Economics and Analysis 2021
(DATA LINK – SLIDE #14 – PRISM Dairy Outlook Deck – December 2021)



DAIRY SECTOR




TRADE TRENDS

Historical and Current Situation

In 2020, Canada exported dairy products valued at \$486 million while importing products valued at \$957 million resulting in a negative trade balance of approximately \$471 million.

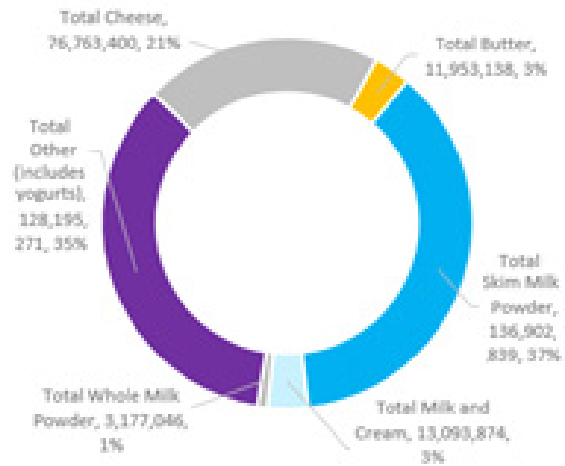
Canada's dairy exports have increased significantly. Since 2015, the value of Canadian dairy exports has increased approximately 130%, while during this period imports have risen 5% shrinking the trade balance.

Canada's main dairy exports are:

-  Skim milk powder (37%)
-  Other products (includes yogurts) (35%)
-  Cheese (21%)

In 2021, Canada's imports of cream and not concentrated milk from the US have significantly increased from previous years. As well, imports of cheese from various countries have increased as well.

Exports by Product in 2020



Source: Statistics Canada
(DATA LINK – SLIDE #16 – PRISM Dairy Outlook Deck – December 2021)

Canadian Dairy Trade Balance



Source: Statistics Canada, Prism Economics and Analysis 2021
(DATA LINK – SLIDE #15 – PRISM Dairy Outlook Deck – December 2021)



Impacts of Trade Agreements

Three trade agreements signed in recent years (CETA, CPTPP, USMCA) provide foreign producers with increased access to the Canadian market. The impacts of the current trade agreements on the Canadian dairy processing industry are expected to have differential impacts depending on the products and countries of origin. Some forecasted impacts include:

- 🇨🇦 Increased EU access to Canada's high value cheese market, potentially displacing some Canadian production. Cheese imports are expected to expand further in 2022. (CETA)
- 🇨🇦 In addition, Canada will continue to import over 20,400 metric tonnes of cheese predominantly from EU origins under a tariff rate quota established by the World Trade Organization (WTO) in 1994.
- 🇨🇦 Decline in the production and export of skim milk powder in 2021 primarily as a result of USMCA provisions that impose export surcharges on Canadian exports of skim milk powder and mild protein.

Trade Agreements

- 🇨🇦 Comprehensive Economic and Trade Agreement (CETA)
- 🇨🇦 Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP)
- 🇨🇦 United States-Mexico-Canada Agreement (USMCA).

Canada will continue to import over 20,400 metric tonnes of cheese predominantly from EU origins under a tariff rate quota established by the World Trade Organization (WTO) in 1994.






DAIRY SECTOR

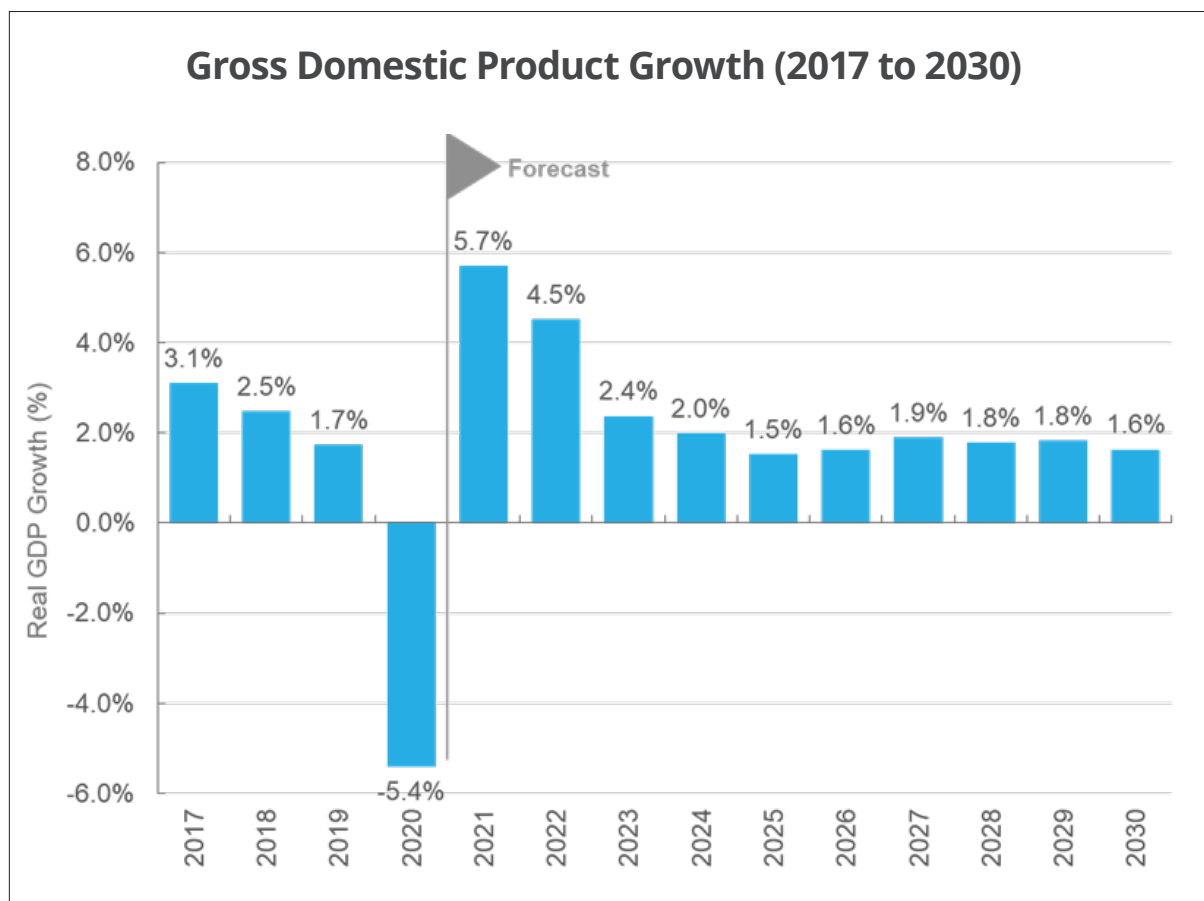
ECONOMIC INDICATORS

Canadian provincial economic environments are a key determinant of provincial dairy product consumption. Due in part to supply management of Canada's dairy sector, most dairy products consumed in Canada are produced domestically. Consumption of dairy products can be affected by fluctuations in economic conditions, through substitution between high and low-cost products (especially in the case of cheeses), or food products purchased outside the home.

Economic growth is also closely tied to population growth, which has a significant impact on consumption of food and dairy products. While natural population growth rate is declining for Canada with an aging population and a falling birthrate, with established immigration targets, the population of Canada is expected to increase by 9% between 2021 and 2030 to reach 41.8million.

National Real GDP Growth Forecast:

-  Economy expected to rebound 5.7% in 2021, followed by 4.5% in 2022
-  Annual growth rate averages 1.8% averages between 2023 and 2030
-  Consumer price inflation (CPI) in Canada is anticipated to exceed 3.5% in 2021 before settling back to the Bank of Canada's inflation target over the forecast horizon, averaging 2.1% through to 2023 to 2030 period. Rising cost of (Missing text.)



(DATA LINK – SLIDE #6 – PRISM Dairy Outlook Deck – December 2021)

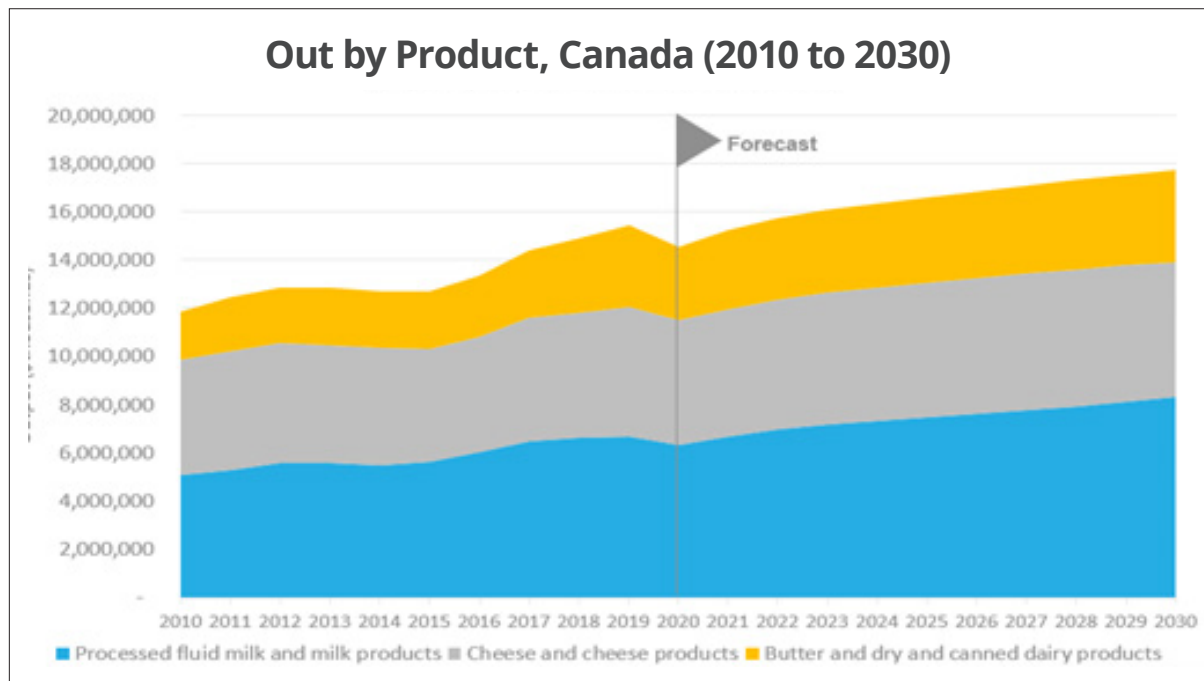


OUTPUT TRENDS

The projected value of output by product category was developed to factor in the various trends in economic and population growth, consumer consumption and preferences, and impacts from trade agreements.

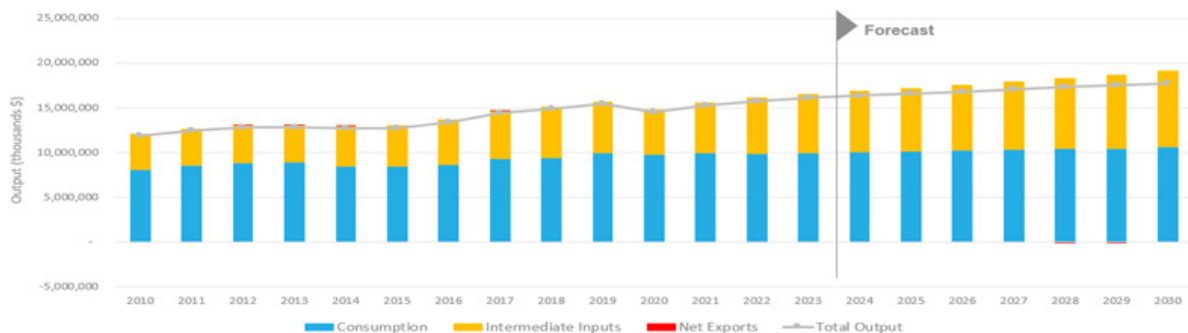
Overall, following a decline in 2020, dairy sector output is estimated to rise 1.7% per year between 2021 and 2030.

Strongest annual average growth is expected in fluid milk and milk products of 2.5%, while growth in cheese and butter products is constrained to average around 1.2% due to the implementation of various trade agreements.



Source: Statistics Canada
(DATA LINK – SLIDE #16 – PRISM Dairy Outlook Deck – December 2021)

Dairy, Total Output



Source: Statistics Canada
(DATA LINK – SLIDE #22 – PRISM Dairy Outlook Deck – December 2021)



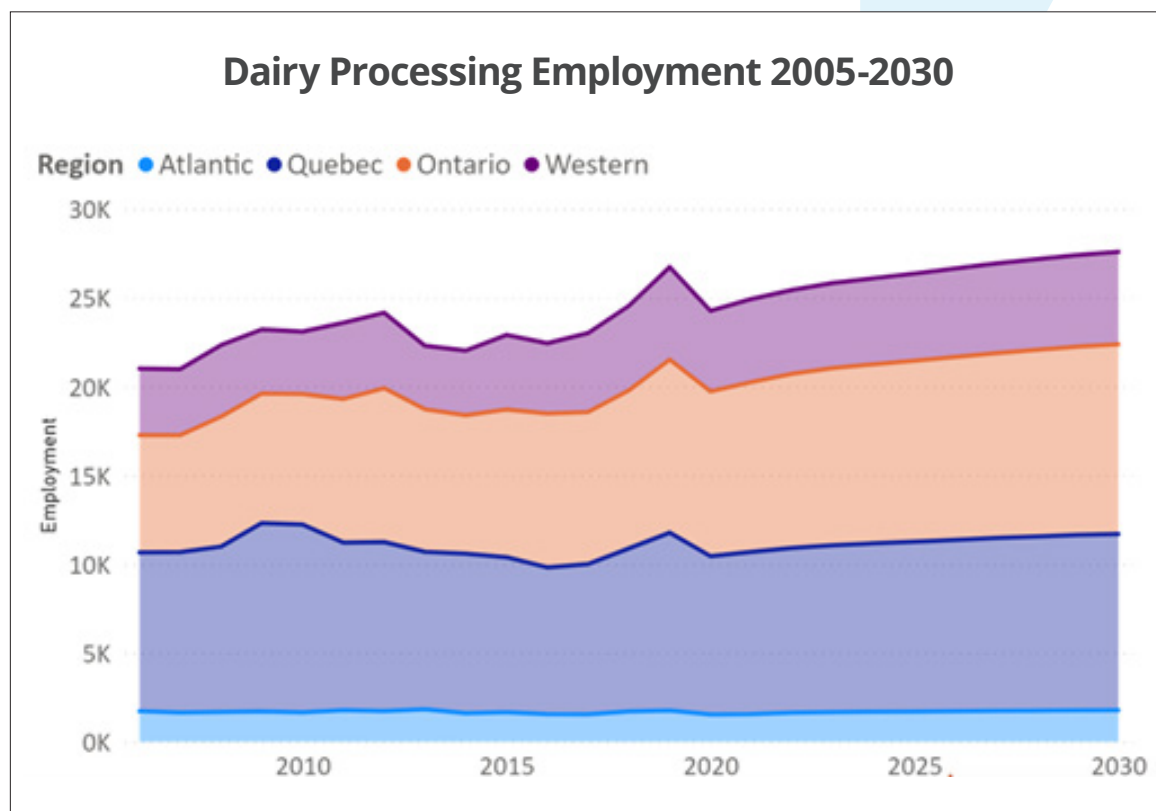
5.0 SECTOR EMPLOYMENT OUTLOOK AND HIRING REQUIREMENTS

Employment Trends by Region Overall

Overall, dairy processing sector employment is projected to rise by 11% between 2021 and 2030. This would mean a rise from 24,928 jobs in 2021 to 27,585 in 2030, a difference of 2,657.

In terms of jobs to be created, the leading regions are those that already have the largest dairy processing industries: Ontario and Quebec. Ontario is expected to add 1,120 jobs between 2021 and 2030 (up from 9,560), while Quebec is expected to add 786 jobs in the same period (up from 9,126).

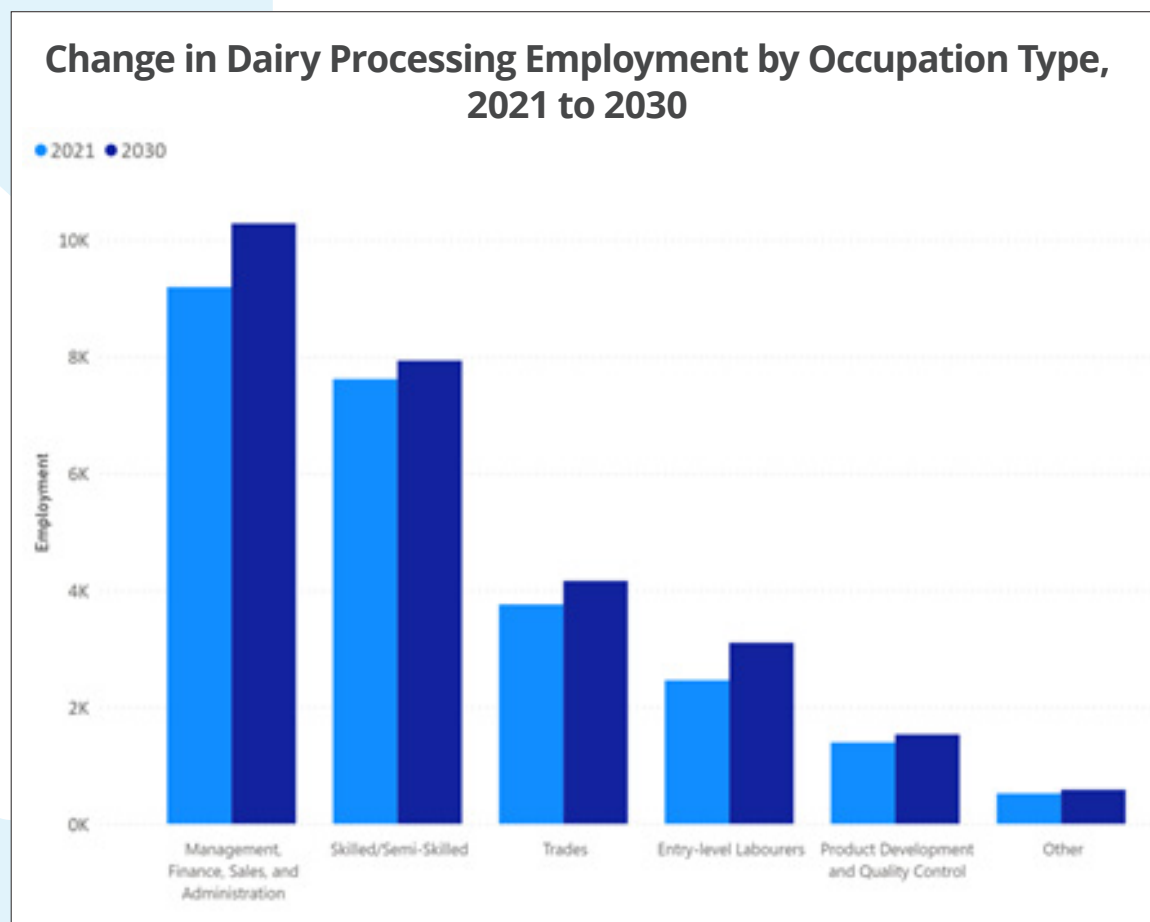
In terms of relative employment growth in the dairy processing industry, Atlantic will be the fastest growing at 14% during this period, followed by Ontario with 12% growth. Quebec's industry is expected to expand the most slowly with a predicted 9% growth between 2021 and 2030.



EMPLOYMENT GROWTH BY OCCUPATION TYPE

Overall Dairy Processing Employment Changes

The trend in employment growth between 2021 and 2030 remains relatively consistent across occupational groupings. Relative proportions do not fluctuate significantly, with management-finance-sales-administration-jobs remaining the largest share, followed by skilled and semi-skilled jobs.



Source: Statistics Canada, Prism Economics and Analysis 2021
(DATA LINK – SLIDE #25 – PRISM Dairy Outlook Deck – December 2021)



Management, Finance, Sales and Admin

The occupations in this group make up the largest proportion of jobs in the industry, and within this group, the sales jobs make up the largest proportion at 33%. Sales jobs are also expected to have the fastest growth rate within this group with 497 additional sales jobs created by 2030.

Entry-level Labourers

The labourer jobs are forecasted to have the largest growth with an increase of 26% or 645 jobs. It should be noted that this is largely the result of recovery and not due to longer-term growth trajectories for the occupation group. Many labourers were impacted by the COVID recession with total employment falling from 2,980 in 2019 to 2,255 in 2020.

Trades

Driver jobs are expected to grow from 1,077 jobs in 2021 to 1,152 in 2030, but the hiring challenges will be significant given the number of anticipated retirements in this field during this period.

Occupation	2021	2030	% Change	Change
Management, Finance, Sales, and Administration	9,190	10,279	11.9%	1,089
Management	2,005	2,269	13.2%	264
Administrative	2,176	2,296	5.5%	120
Sales	3,040	3,538	16.4%	497
Logistics	1,547	1,748	13.0%	202
Information Systems	423	428	1.4%	6
Entry-level Labourers	2,457	3,101	26.2%	645
Labourers	2,457	3,101	26.2%	645
Other	518	583	12.6%	65
All Other	518	583	12.6%	65
Product Development and Quality Control	1,391	1,529	10.0%	139
Technical Occupations in Physical Sciences	1,031	1,095	6.2%	64
Technical Occupations in Life Sciences	145	176	21.3%	31
Other Technical Occupations	215	259	20.5%	44
Skilled/Semi-Skilled	7,615	7,931	4.2%	316
Managers	1,340	1,501	12.0%	161
Operators	6,275	6,430	2.5%	155
Trades	3,757	4,160	10.7%	403
Drivers	1,077	1,152	6.9%	75
Material Handlers	1,207	1,349	11.7%	142
Other Trades	1,472	1,660	12.7%	187
Total	24,928	27,585	10.7%	2,657

Source: Statistics Canada, Prism Economics and Analysis 2021
(DATA LINK – SLIDE #35 – PRISM Dairy Outlook Deck – December 2021)



WORKFORCE HIRING REQUIREMENTS FOR THE DAIRY PROCESSING INDUSTRY

Over the 10-year period between 2008 and 2018, the dairy processing industry saw employment growth of approximately 8.5% or the addition of 1,900 employees. Between 2021 and 2030, the rate of employment growth is expected to be higher at approximately 11% growing from 25,000 employees in 2021 to 27,600 by 2030. This will require an additional 3,324 workers due to growth of the sector. However, the total demand for new employees during this time will be significantly larger due to the large number of replacement employees required for the sector as a result of retirements during this period (5,993 replacements needed). As a result, the dairy processing industry will need to find an additional 9,317 new employees by 2030. This total demand will be 36% due to growth, and 64% due to replacements.

Who will the dairy processing industry need to find?

On an annual basis, the industry will need to recruit:



- 344 new managers, sales, logistics and admin staff
- 146 new entry-level labourers
- 244 skilled/semi-skilled operators and managers
- 146 trades people

Occupation Type	Employment Growth	Replacement	Total Demand	Average Employment Growth	Average Replacement	Average Demand
Management, Finance, Sales, and Administration	1,194	2,246	3,440	119	225	344
Administrative	141	571	712	14	57	71
Information Systems	-13	77	64	-1	8	6
Logistics	160	396	556	16	40	56
Management	344	617	961	34	62	96
Sales	562	585	1147	56	58	115
Entry-level Labourers	847	617	1,464	85	62	146
Labourers	847	617	1,464	85	62	146
Other	70	133	203	7	13	20
All Other	70	133	203	7	13	20
Product Development and Quality Control	56	253	309	6	26	31
Other Technical Occupations	13	55	68	1	6	7
Technical Occupations in Life Sciences	17	26	43	2	3	4
Technical Occupations in Physical Sciences	26	172	198	3	17	20
Skilled/Semi-Skilled	567	1872	2439	57	187	244
Managers	51	347	398	5	35	40
Operators	516	1,525	2,041	52	152	204
Trades	590	872	1,462	59	87	146
Drivers	121	246	367	12	25	37
Material Handlers	201	254	455	20	25	45
Other Trades	268	372	640	27	37	64
Grand Total	3,324	5,993	9,317	332	600	931

Source: Statistics Canada, Prism Economics and Analysis 2021
(PRISM Dairy Outlook updated file sent January 2023)



Part 3 UNDERSTANDING WORKFORCE SUPPLY



**Where will the workers come from?*



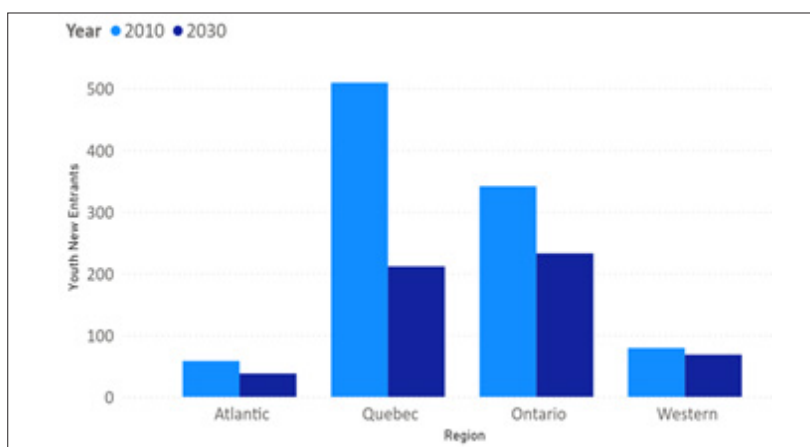
6.0 Overview of Workforce Supply

CONSIDERATIONS IN IDENTIFYING SUPPLY SOURCES

Youth New Entrants

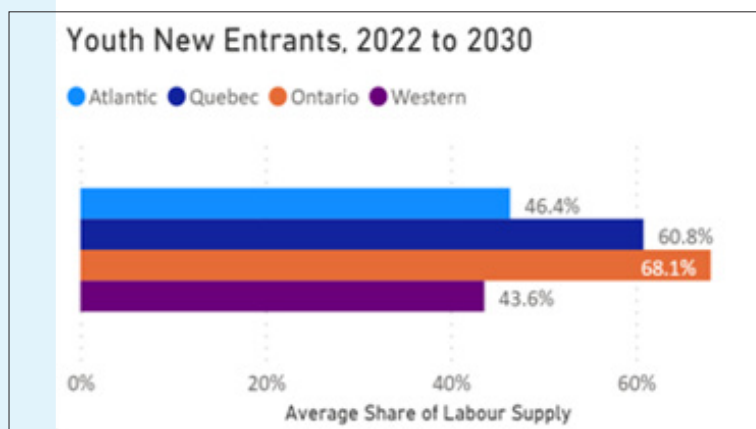
As the population of Canada ages, the overall proportion of labour supply that is made up of youth new entrants is expected to decline. Young people entering the Canadian workforce are expected to provide 68.1% of Ontario's labour supply available to be hired by employers for new and replacement positions. A similar proportion (60.8%) is expected for Quebec, with much lower proportions anticipated for Atlantic (46.4%) and Western Canada (43.6%).

Youth Labour Supply for Dairy Processing by Region, 2010 and 2030



Source: Statistics Canada, Prism Economics and Analysis 2021
(DATA LINK – SLIDE #34 – PRISM Dairy Outlook Deck – December 2021)

Specifically for the dairy processing industry, the youth labour supply is expected to decrease in all regions between 2010 and 2030, with the largest drop occurring in Quebec going from approximately 500 in 2010, down to approximately 200 by 2030. Ontario is also expected to see a decrease in youth labour supply with a drop from approximately 350 in 2010, down to 225 by 2030. The dairy processing industry is likely going to have to continue to seek out and recruit from labour supply sources (e.g., immigration, other sectors) with less reliance on youth new entrants to meet labour demand.



Source: Statistics Canada, Prism Economics and Analysis 2021
(DATA LINK – SLIDE #34 – PRISM Dairy Outlook Deck – December 2021)



Factors Impacting Labour Supply

In addition to understanding the fluctuating rate of youth new entrants on labour supply, there are other factors that can influence labour supply that can be characterized by sector. Some of these used to understand potential labour supply for the dairy processing include:

Unemployment Contraction: The potential labour supply can be impacted by contractions and expansions of unemployment rates. Contracting unemployment rates result in fewer job-seekers, and decreases in potential labour supply. Conversely, as unemployment rates increase, there are more job-seekers resulting in more individuals available to fill employment positions. Understanding unemployment fluctuation at the industry and regional level can inform important considerations regarding estimations of labour supply.

Labour Market Participation Adjustment: Similarly, labour market participation adjustments can impact labour supply. There are various reasons why individuals do not actively participate in the labour market such as raising a young family, caregiving for parents, attending school, retirement, or due to other personal contexts and situations. The labour market participation rate fluctuates according to various factors (e.g., population demographics, economic factors) and is an important consideration in understanding and predicting labour supply.

Other Sources of Supply: Another key consideration in understanding supply is identifying and quantifying potential other sources of workers. These can frequently include overall immigration rates, immigrant retention for specific regions, and potential employment fluctuations in similar sectors or occupations (e.g., other manufacturing sectors).

There are various reasons why individuals do not actively participate in the labour market such as raising a young family, caregiving for parents, attending school, retirement, or due to other personal contexts and situations.



Workforce Supply by Source for Other Food Processing Industry

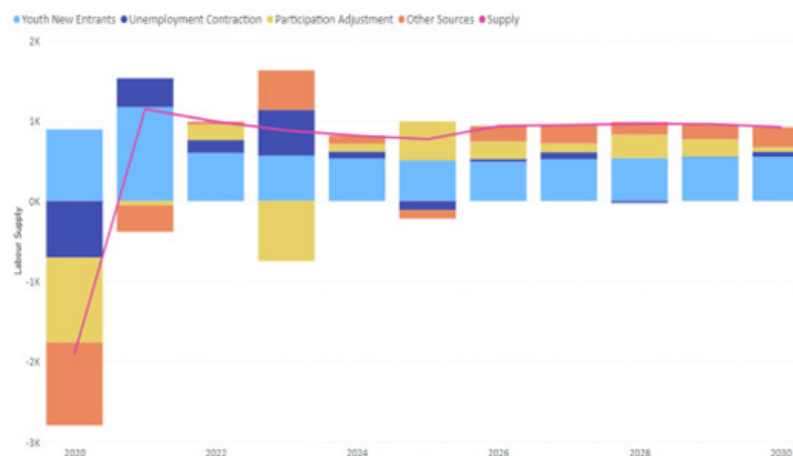
The potential sources of labour supply for the dairy processing industry vary according to occupation groups between 2021 to 2030 to meet the projected overall demand for 9,316 workers. The largest source (65% or 6,012) is expected to be youth new entrants. Much smaller proportions will be derived from unemployment contraction (13% or 1,232) or other sources such as immigration (13% or 1,214). Labour market participation adjustment is expected to account for 9.2% of the labour market supply available to fill vacancies due to replacements or sector growth.

Occupation Type	Youth New Entrants	Unemployment Contraction	Participation Adjustment	Other Sources	Total Supply
Management, Finance, Sales, and Administration	2,281	475	244	439	3,438
Management	325	61	223	352	961
Administrative	408	103	-66	266	712
Sales	1,128	215	131	-328	1,147
Logistics	344	82	-5	134	556
Information Systems	76	13	-39	14	64
Entry-level Labourers	816	127	592	-72	1,464
Labourers	816	127	592	-72	1,464
Other	127	29	12	35	203
All Other	127	29	12	35	203
Product Development and Quality Control	303	71	-86	22	310
Technical Occupations in Physical Sciences	225	57	-88	4	198
Technical Occupations in Life Sciences	31	5	7	0	43
Other Technical Occupations	46	9	-5	18	68
Skilled/Semi-Skilled	1,593	305	-43	584	2,439
Managers	240	53	-56	161	398
Operators	1,354	252	12	423	2,041
Trades	891	225	140	206	1,462
Drivers	209	52	18	89	367
Material Handlers	355	93	15	-9	455
Other Trades	327	80	108	126	640
Total	6,012	1,232	859	1,214	9,316

Source: Statistics Canada, Prism Economics and Analysis 2021 (DATA LINK – SLIDE #37 – PRISM Dairy Outlook Deck – December 2021)

The annual changes in the components of the labour supply for the dairy processing industry fluctuate from year to year. In 2020, labour force declined in reaction to a drop in employment. Labour force participation fell, unemployment rose, and a smaller number of new entrants and workers from other sources found work in the dairy processing industry. Across all years, the largest component of supply is from youth new entrants.

Workforce Supply by Source for Dairy Processing, 2020 and 2030



Source: Statistics Canada, Prism Economics and Analysis 2021 (DATA LINK – SLIDE #38 (revised) – PRISM Dairy Outlook Deck – December 2021)



Part 4 **PUTTING IT ALL TOGETHER – LABOUR MARKET TIGHTNESS**



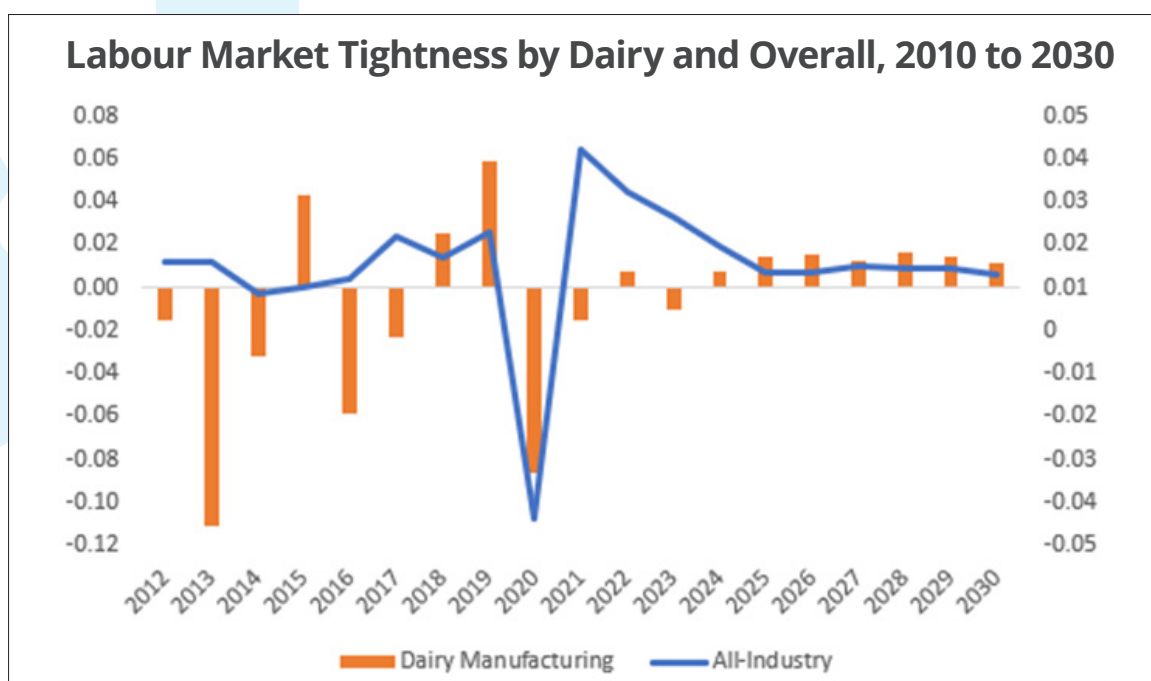
7.0 Labour Market Tightness

LABOUR MARKET TIGHTNESS

Labour market tightness is a measure of the share of the annual supply change that occurs after accounting for available new entrants. Recruitment challenges increase as the proportion of workers need to be recruited from other industries, occupations and geographic regions rises. Recruitment challenges are exacerbated when tightness in other industries exceeds that of the dairy sector. The figure to the right shows the annual market tightness measure for the dairy manufacturing and all industries for Canada between 2012 and 2030.

The primary challenge in quantifying the supply of workers available to meet dairy processing industry demand is assessing the potential dairy processing labour force that would be recruited from other industries. This is especially difficult for production level workers with no specific tracked skills or qualifications to attach them to a specific sector other than experience. This makes it difficult to discern and measure any differences between worker availability and labour market conditions in one industry from another.

The method adopted in this analysis is to measure the annual hiring requirement for an occupation or trade, less the amount of new entrants available, as share of the labour force in the previous year. This assumes the recruitment challenges are greater in circumstances where relatively large numbers of workers are required in additional to the expected number of new entrants available. The analysis also considers the labour market tightness for the same occupation in all other industries. Recruitment challenges are expected to be greater when labour market tightness in other sectors exceeds that of those in the dairy sector.



Source: Statistics Canada, Prism Economics and Analysis 2021 (DATA LINK – SLIDE #38 (REVISED) – PRISM Dairy Outlook Deck – December 2021)

Prior to 2020 and the onset of the COVID-19 pandemic, the dairy processing industry had experienced ups and downs in labour market tightness, with higher levels leading up to the pandemic onset. This would be reflected in employers likely experiencing greater challenges in recruiting for various positions. Post 2020 until 2024, the outlook for the industry labour market tightness will be lower compared to all other industries. As of 2025 the level of labour market tightness will be similar to the the levels predicted overall for industry.







DAIRY SECTOR

LABOUR MARKET TIGHTNESS BY OCCUPATION

Labour market tightness is expected to persist through 2022 as economic recovery collides with reduced rates of labour force participation. This means that recruitment and retention will be particularly challenging for many occupations and roles through 2022.

Increased labour force participation is expected to ease recruitment challenges for several occupation groups by 2023, but then labour market tightness will return in 2028 onwards as labour force growth slows and there is increased competition from other industries.

By 2028, recruitment challenges will be most severe for occupations and roles related to:

-  Management
-  Logistics
-  Some Technicians
-  Drivers

Reading the Rankings

Labour markets have tightened significantly in recent years and what were previously periodic recruitment challenges have now become permanent challenges faced by employers in all sectors of the economy. Given this reality, the ranks are intended to be interpreted in relation to recruitment and retention conditions experienced over the previous five years. The analysis of labour market tightness uses a relative ranking system:

Rank of 1 – recruitment/retention less challenging than previous years

Rank of 2 - recruitment/retention present comparable challenges to previous years

Rank of 3 - recruitment/retention more challenging than previous years

**Recruitment and retention
will be particularly challenging
for many occupations and
roles through 2022.**



Occupation Type	2022	2023	2024	2025	2026	2027	2028	2029	2030
Management, Finance, Sales, and Administration									
Management	Red	Yellow	Red	Red	Red	Red	Red	Red	Red
Administrative	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Red	Yellow	Yellow
Sales	Red	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Logistics	Yellow	Yellow	Yellow	Red	Red	Red	Red	Red	Yellow
Information Systems	Green	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Entry-level Labourers	Red	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Labourers	Red	Red	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Other	Red	Yellow	Yellow	Yellow	Yellow	Yellow	Red	Red	Yellow
Product Development and Quality Control	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Technical Occupations in Physical Sciences	Green	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Technical Occupations in Life Sciences	Red	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Other Technical Occupations	Red	Yellow	Yellow	Yellow	Yellow	Yellow	Red	Red	Yellow
skilled/Semi-Skilled	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Managers	Red	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Operators	Green	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Trades	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Red	Yellow	Yellow
Drivers	Yellow	Yellow	Yellow	Yellow	Red	Yellow	Red	Red	Yellow
Material Handlers	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Other Trades	Red	Yellow	Yellow	Yellow	Yellow	Yellow	Red	Yellow	Yellow
Total	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow



Part 5 WORKING TOWARDS SOLUTIONS



8.0 Recruitment and Retention

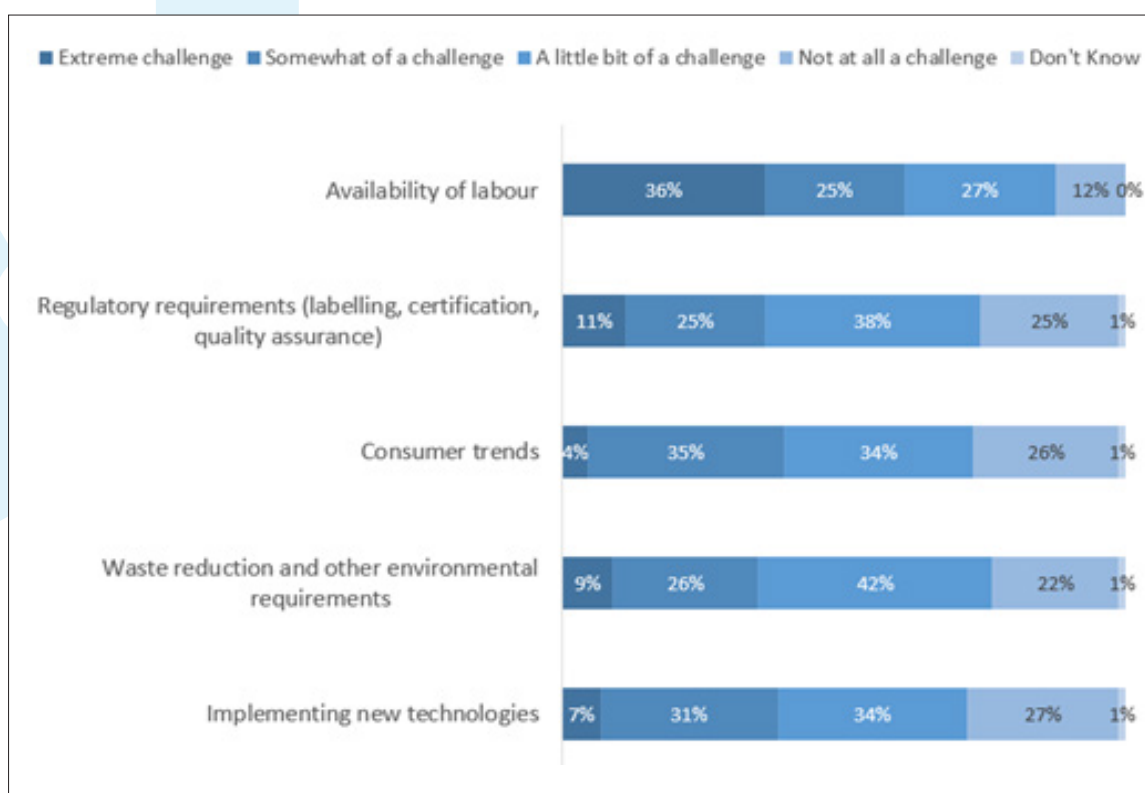
CURRENT PRACTICES AND CHALLENGES

Business Challenges

The top business challenge for dairy processors in 2020 was identified as the availability of labour with over one-third (36%) identifying it as an “extreme challenge” and an additional one-quarter (25%) reporting labour availability as “somewhat” of a challenge.

This finding should be interpreted within the context of the labour market tightness projections which indicate that the challenges with recruitment and retention are expected to remain similar for the upcoming years for many occupations in the industry, with additional challenges and tightening occurring towards the end of the decade.

How would you rate the following in terms of their impact on your business.....?

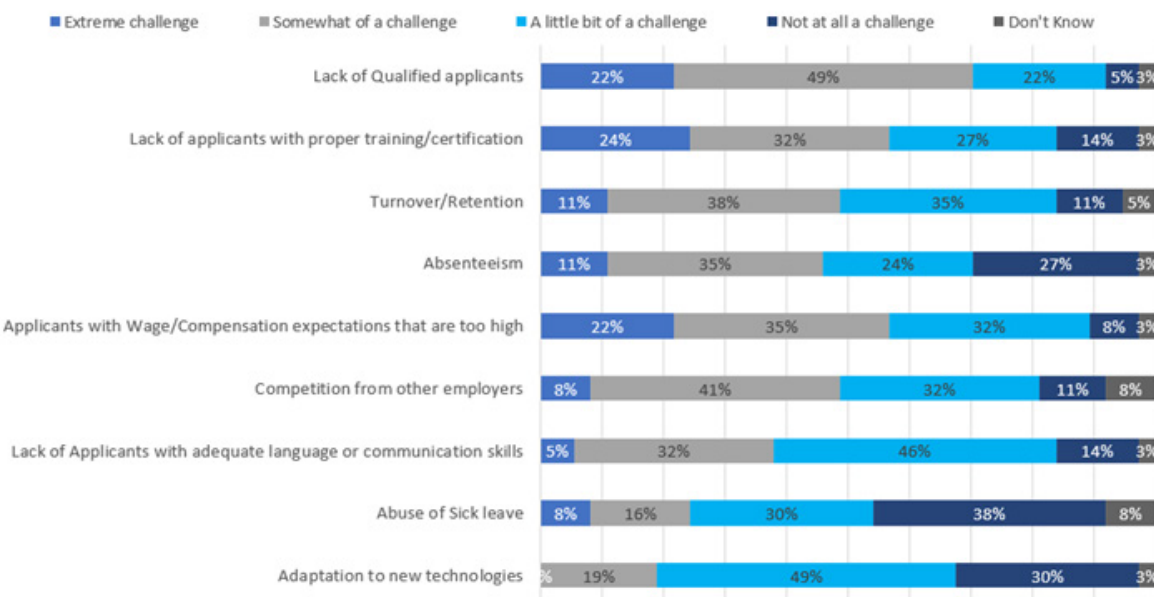


Source: FPSC Survey of Employers 2020 (n=89)
(DATA LINK – SLIDE #11 – PRISM Dairy Survey Deck – July 2020)



HR Challenges

The three top human resource challenges identified by dairy processors are a lack of qualified applicants, lack of applicants with proper training or certification, and applicants having high expectations for wages and compensation. These challenges are similar to those identified within other food processing sectors, and various other Canadian industries. Labour market tightness and labour supply being outstripped by demand contributes directly to challenges such as lack of applicants and high expectations regarding compensation. The challenge related to applicants not having proper training could be traced to the availability of appropriate and accessible training programs for the industry, and possibly the level of career awareness and perceptions of the dairy processing industry among new entrants and other sources of labour.



Source: FPSC Survey of Employers 2020 (n=89)
(DATA LINK – SLIDE #14 – PRISM Dairy Survey Deck – July 2020)

Labour market tightness and labour supply being outstripped by demand contributes directly to challenges such as lack of applicants and high expectations regarding compensation.

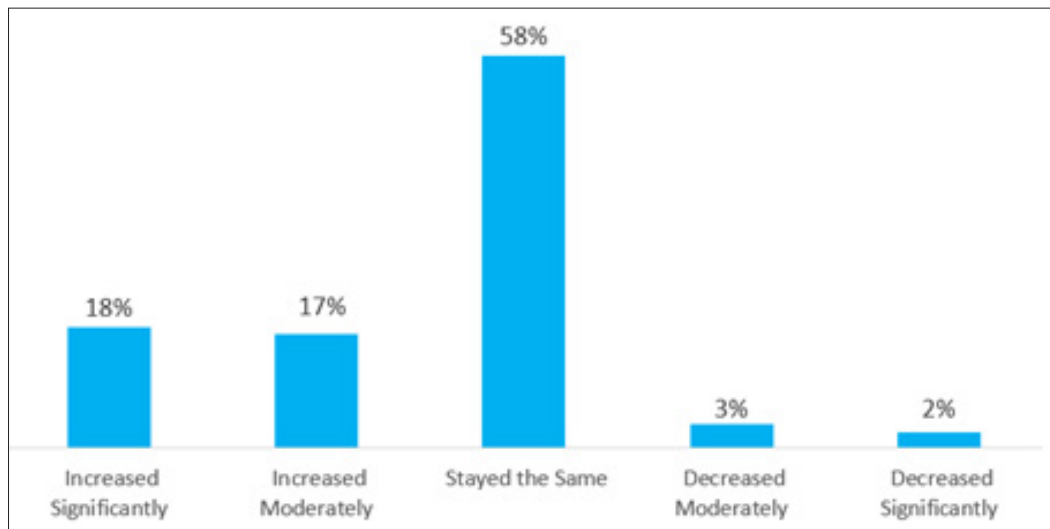


Workforce Availability & Recruitment Challenges

Highlighted as the top business challenge among dairy processors, **workforce availability** challenges are characterized as immediate and persistent by approximately one-third (36%) of processors, with an additional quarter (27%) indicating the challenge is ongoing.

Recruitment challenges for most had remained similar in 2020 compared to 2019 (58%), but one-third (35%) reported that they had increased either “moderately” or “significantly” over the year.

Would you say that recruitment challenges over the past year have...?



Source: FPSC Survey of Employers 2020 (n=89)
(DATA LINK – SLIDE #13 – PRISM Dairy Survey Deck – July 2020)

How would you describe the general availability of workers you need?



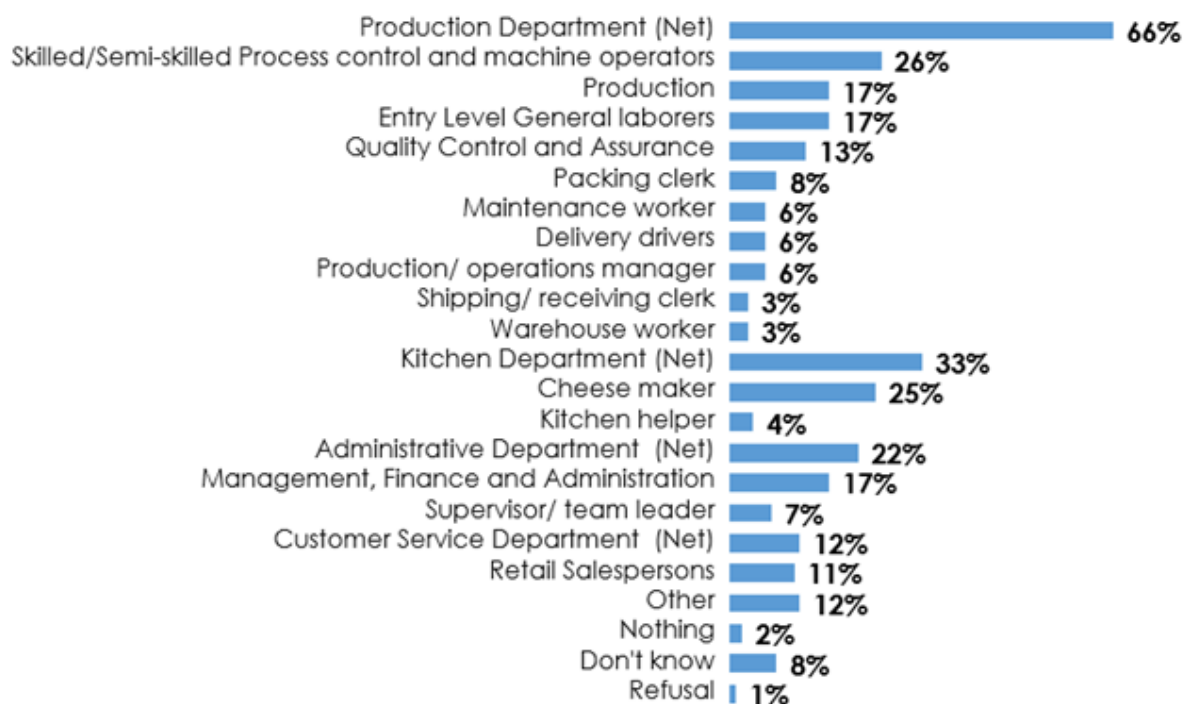
Source: FPSC Survey of Employers 2020 (n=89)
(DATA LINK – SLIDE #12 – PRISM Dairy Survey Deck – July 2020)



DAIRY SECTOR

Other Food Jobs most Difficult to Recruit

Dairy processors reported that the jobs most difficult to recruit for were within the production department (66% reported challenges) with most frequent challenges occurring in recruiting skilled and semi-skilled process control and machine operators (26%), production workers (17%) and entry level general labourers (17%). These findings match with the labour market tightness outlooks, particularly with respect to general labourer recruitment.



Source: FPSC Survey of Employers 2020 (n=89)
(DATA LINK – SLIDE #14 – PRISM Dairy Survey Deck – July 2020)

Dairy processors reported that the jobs most difficult to recruit for were within the production department.



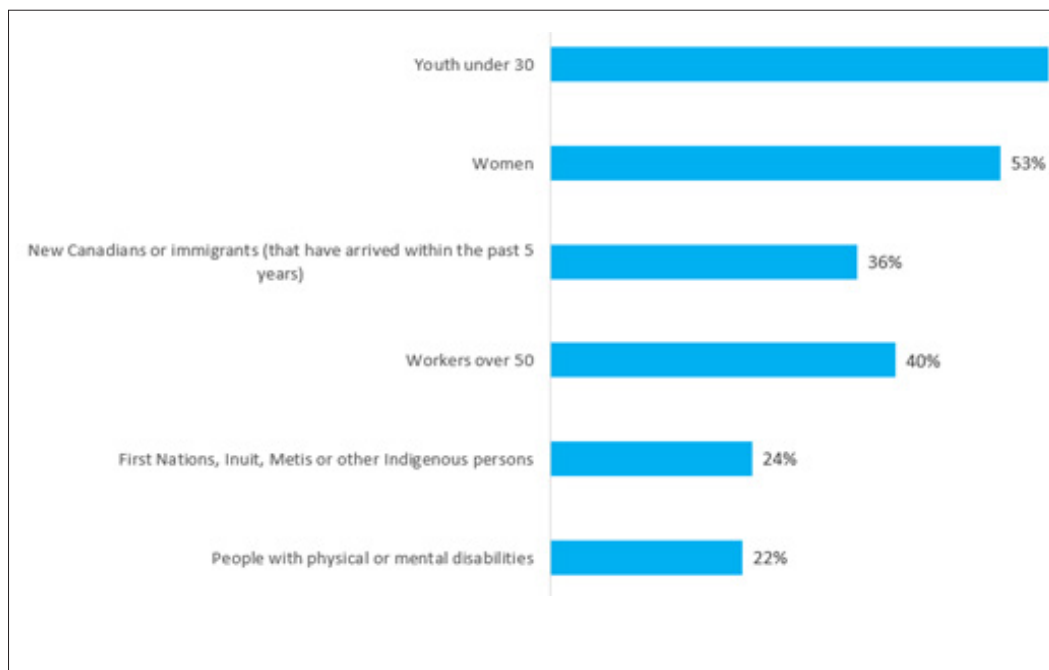
Recruitment Efforts with Underrepresented Groups

Recruitment efforts among dairy processors indicated that particular efforts are being made to engage with and youth (58%), women (53%), workers over 50 years old (40%) and recent immigrants (36%).

Less frequently, dairy processors reported targeted efforts to engage with and potentially recruit among Indigenous groups (24%) or persons with disabilities (22%).

Given that these underrepresented groups are significant potential sources of labour within an increasingly tight labour market, dairy processors may need to consider further development and implementation of recruitment efforts that target and accommodate these groups in order to benefit more fully from their participation in the industry.

Do you make a concerted effort to recruit from any of the following underrepresented groups?



Source: FPSC Survey of Employers 2020 (n=89)
(DATA LINK – SLIDE #19 – PRISM Dairy Survey Deck – July 2020)



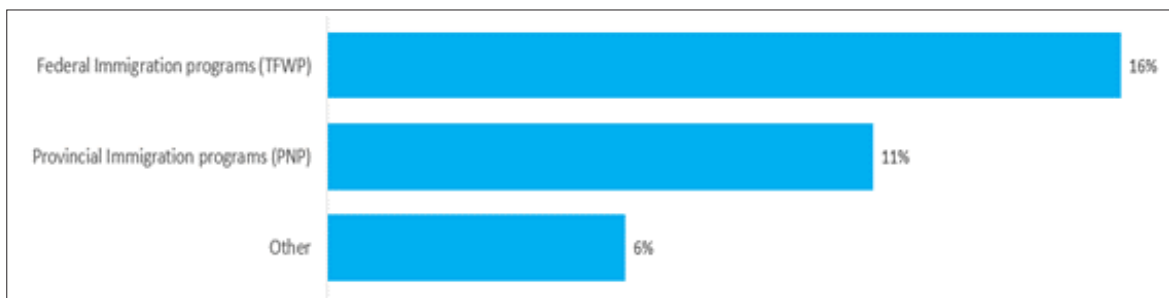
DAIRY SECTOR

IMMIGRATION PROGRAMS: OPPORTUNITIES AND CHALLENGES

Dairy processors reported very similar rates of usage of immigration programs when compared with the overall food and beverage processing sector with 16% reporting that they used federal immigration programs such as the Temporary Foreign Workers Program (TFWP), and 11% reporting using provincial immigration programs such as the Provincial Nominee Program (PNP). Dairy processors reported that on average 7% of their workforce is composed of recent permanent immigrants (arrived within the past 5 years) compared with 9% among the overall food and beverage processing sector.

Given the anticipated continued increase in immigration to Canada, there may be additional opportunities for the dairy processing sector to take part in accessing this growing labour supply depending on skill requirements, workplace culture developments, and support systems established.

Use of Immigration Programs



Source: FPSC Survey of Employers 2020 (n=89) (DATA LINK – SLIDE #16 – PRISM Dairy Survey Deck – July 2020)



EMPLOYEE PAY AND BENEFITS

Wages and Salaries

Wage and salary information for the dairy processing industry is contingent on region, sub-industry, occupation, skills and experience levels. The diversity in occupations and skill/education requirements should be considered in analysing wage and salary rates for the industry.

Dairy processors responding to the survey of employers in 2020 indicated an average hourly starting wage of \$16.10 for an entry level front-line worker ranging from \$13/hour to \$28/hour. This is in alignment with ESDC published 2020 hourly wages for labourers in food and beverage processing (NOC 9617) which ranged from \$14.25/hour to \$19.25/hour depending on province, with an overall median of \$15/hour.

Using somewhat dated median income data from the 2016 Census, the overall median income for the dairy processing industry is approximately \$48,500, with median income related to education and gender.

-  The median income for all workers regardless of their gender ranges from more than \$37,600 for those employees with less than a high school education to approximately \$62,700 for those workers with at least a bachelor's degree.
-  A gender gap in remuneration is observed for median income at all levels of education attainment. On average, women make 74 cents for each \$1 that a male colleague makes.



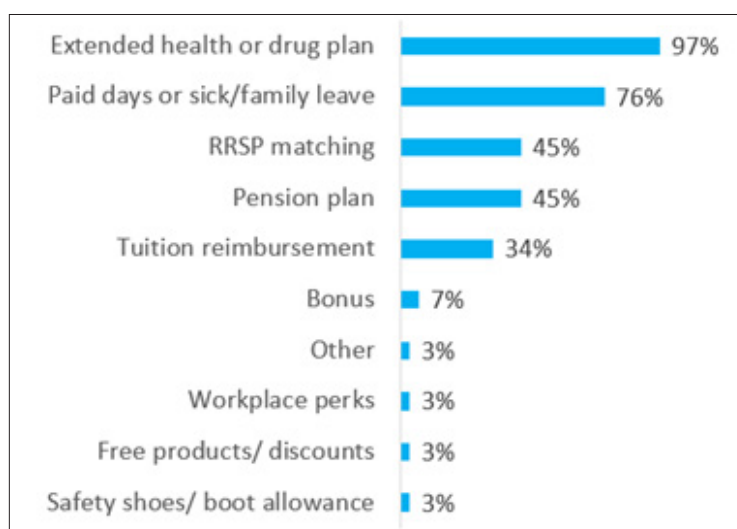
2015 Median Income – NAICS 3115

Level of education (highest diploma)	Median Annual Income		
	Total	Male	Female
OVERALL	\$48,532	\$53,369	\$37,918
No certificate, diploma or degree	\$37,651	\$44,037	\$23,939
Secondary (high) school or equivalent	\$45,925	\$49,939	\$33,697
Apprenticeship or trades certificate or diploma	\$48,273	\$54,724	\$31,155
College, CEGEP or other non-university certificate or diploma	\$51,654	\$59,445	\$40,570
University certificate or diploma below bachelor level	\$57,872	\$63,854	\$52,906
University certificate, diploma or degree at bachelor level or above	\$62,733	\$68,461	\$55,991

Source: FPSC Survey of Employers 2020 (n=50) (DATA LINK – SLIDE #18– PRISM Other Food Survey Deck – July 2020)

Benefits

The dairy processors responding to the survey in 2020 noted a number of different benefits that they offered their employees. Almost all (97%) indicated that they offered an extended health or drug plan, while three-quarters (76%) reported providing paid days for sick or family leave. Slightly less than one-half (45%) reported RRSP matching or a pension plan. Approximately one-third (34%) provided tuition reimbursement for employees.



Source: FPSC Survey of Employers 2020 (n=50)
(DATA LINK – SLIDE #18– PRISM Other Food Survey Deck – July 2020)

Benefits offered by large dairy processors

From a review of job postings and employment boards, some of the benefits that were noted as being offered by large dairy processors included:

- Bonus for evening and night shifts
- Health insurance coverage, including a health savings account, dental coverage, and employee assistance programs
- Defined pension benefit with employer contribution
- Sick days, short-term and long-term disability
- Annual bonus program opportunity based on salary grade
- Three-week vacation to start
- Tuition reimbursement
- Stock options
- Access to cafeteria and sports program during lunch hour



DAIRY SECTOR

5 GENERATIONS IN THE WORKPLACE

FPSC conducted a study on career-related aspirations, expectations and preferences across five generations in the workplace. The key findings from this study can be applied to some of the potential solutions that the dairy processing industry is developing as it looks to address current and future challenges in with recruitment and retention in an increasingly tightening labour market.

When developing solutions, keep in mind for everyone...

- Financial security and work-life balance are key goals for almost everyone.
- Workers of all ages want to continue to learn throughout their lives.
- Performance bonuses and health/dental coverage are attractive to everyone
- Most workers would actually prefer to remain with an organization for as long as possible – job hopping is not attractive for many
- Wages and benefits form only part of the overall attraction – as important is to work for someone who is fair, open and transparent
- Workers want to be proud of where they work
- Workers want to understand key aspects of their workplace's big picture and context

When developing solutions, keep in mind for younger workers, women, and new entrants to the labour market ...

- They have higher expectations about what a job should provide them beyond a pay cheque.
- They want to make friends, have fun at work and have a supervisor who is friendly.
- They are keen to see how their work and the organization contributes to the greater good.
- A sense of belonging is important.
- They want more feedback about how they are doing and need more structure.
- Very attracted to health and wellness policies and programs.



When developing solutions, keep in mind for Generation Z and Young Millenials...

- Advancement becomes more important, and they hope to see a path forward.
- They are particularly keen to learn new things.
- Performance bonuses and health/dental coverage are attractive to everyone.



PERCEPTIONS OF SECTOR

Recent studies by FPSC have highlighted the relatively low awareness of the food processing sector overall among Canadian. This contributes to the challenges processors are facing in recruitment and retention. A survey conducted in 2018 by FPSC found that only one in four Canadians reported being familiar with the food and beverage processing industry, and only one in six indicated that they would apply for a job in the industry if it was located near them.

Perceptions of the food processing sector tend to vary according to various factors which may be useful for dairy processors and the industry to consider as they attempt to develop and implement solutions to recruitment and retention challenges. Two groups that stood out in the analyses as being more attracted to employment opportunities in the sector are recent immigrants and Indigenous people. Currently, the dairy processing industry employs slightly lower proportions of recent immigrants compared with the overall sector (7% vs. 9%) and is not a big user of immigration programming compared with some other food processing industries. Similarly, Indigenous people appear to be underrepresented in the dairy processing industry at 1% of the workforce on average across surveyed dairy processors.



Currently, the dairy processing industry of immigration programming compared with some other food processing industries.

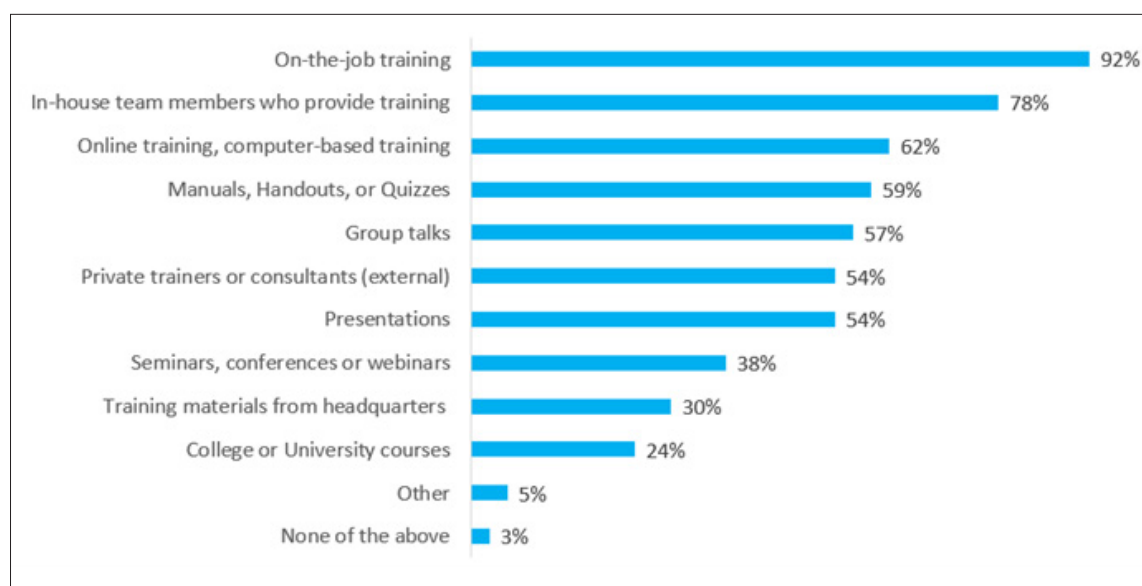


DAIRY SECTOR

EMPLOYER-LED TRAINING - OPPORTUNITIES AND CHALLENGES

Dairy processors report offering a wide variety of types of training to their employees with the most frequent being on-the-job training (92%), and in-house training (78%). On average, dairy processors reported allocating approximately \$25,500 annually to training which results on average \$330 per paid position.

One of the top HR challenges noted on the survey of employers for the dairy processing industry was a lack of applicants with the proper training and qualifications. While there are a limited number of dairy processing training programs in Canada, the requirements from employers appear to not being met with either the number and/or quality of graduates from these programs. Employer-led training is another option that appears to be filling the gap for some employers.



Source: FPSC Survey of Employers 2020 (n=89)
(DATA LINK – SLIDE #20 – PRISM Dairy Survey Deck – July 2020)

**On average, dairy processors
reported allocating approximately
\$25,500 annually to training.**



9.0 Leveraging Canada's Leadership In Education

EDUCATIONAL LANDSCAPE FOR THE SECTOR

The availability of training options for dairy processing, ice cream production, or cheese making in Canada is varied, with 33 courses or programs offered that specialize in these subjects as of 2020. Offerings consist of short courses or longer programs (generally no more than one-year). Continuing education courses may be taken individually or as part of a continuing education certificate program.

Training options are offered in three main subjects: cheese, dairy processing, and ice cream production. Making up over 70% of current training options, the focus on cheese instruction and cheese making is strong, including an introduction course on cheese, a course on cheese ageing, cheese-making workshops, and the professional fromager certificate. The emphasis on cheese is likely in response to the expected demand for cheese makers throughout the country and to increased interest in small batch artisanal cheese making.

Most training options are delivered through post-secondary education institutions. University programs, college certificate programs and continuing education require the participant be enrolled as a student. These programs would appeal to those interested in pursuing employment in the industry and who require technical skills to complete their job duties. Workshops and one-week training programs do not require enrollment as a student and may attract a wider range of participants: those working in the industry, those interested in the subject as a hobby or those involved in a small or medium-sized enterprise (SME).



Canadian Dairy Commission's Workforce Development Initiative

The Workforce Development Initiative (WDI) was launched in 2018 as a three-year, \$5 million funding program that promoted training in the dairy industry, provided scholarships to study in relevant areas (e.g., dairy science and dairy policy), as well as provided support for program development. The WDI provided funding for three programs pertinent to education and training:

Program Name:	Details:	Target Participant Group:
Scholarship Program	To encourage graduate studies in the fields of animal science, dairy science and policy and economics as they relate to dairy.	Graduate students
Career Promotion Program	Promotes careers in the dairy industry	Students and job seekers
Education Program	Creates full-time, government-certified programs to train qualified staff to work in dairy plants.	Students and job seekers
Continuing Education Program	Provides training and upgraded learning opportunities to those already working in the dairy industry.	Dairy industry workers

The Education Program creates full-time, government-certified programs to train qualified staff to work in dairy plants.



10.0 At the Crossroad – Moving Forward Recommendations

The Canadian Dairy Processing Industry like other food processing sectors is at somewhat of a crossroad with respect to attracting sufficient numbers of qualified, skilled workers in the upcoming decade to meet the anticipated hiring requirements due not only to projected industry growth, but also the proportion of current workforce who are at or near the age of retirement. The following recommendations and considerations have been developed based on the results of this labour market information study, combined with overall trends, opportunities and challenges that the Canadian food processing industry is addressing more broadly in the upcoming decade.

Positively Shift Industry Perceptions




-  Utilize research and insights from this report to support meaningful stories that promote careers and job opportunities in the dairy processing industry. This can help boost awareness of critical roles between dairy farmers (well publicized) and the role of processing.
-  Showcase the dairy processing industry's current good business practices including environmental programs and corporate social responsibility to engage iGen and young millennials.
-  Leverage existing industry and career initiatives including *Taste Your Future*, *Careers Now!*, *Frontline Food Facts*, *Feeding Your Future* and *AgCareers* to attract underrepresented groups and inform job seekers.

Showcase the dairy processing industry's current good business practices including environmental programs and corporate social responsibility.








DAIRY SECTOR

Adapt Recruitment and Retention Strategies to the Workforce of the Future

-  Dairy processors can update job postings and other outreach and recruitment activities to remove barriers and appeal to a diverse range of people. Job postings are also an excellent opportunity to highlight company values, contributions to community/country, the work environment and advancement possibilities.
-  Strengthen connections with local educators, workforce planning boards and groups representing New Canadians and racialized individuals to share local employment opportunities.
-  Work with local educational institutions to offer Work Integrated Learning opportunities to students, especially in the skilled trades, that provide job experiences and a bridge to future employment with local dairy processors.
-  Commit to a workplace culture of the future that reflects openness, flexibility and diversity and empowers employees to make decisions.

Build and Grow Skills and Knowledge

-  Ensure a commitment to continuous learning and upskilling and an environment where professional development and skilled employees are valued. Utilize existing industry and employer resources such as the Canadian Food Processors Institute and Food Skills Library to train people.
-  Identify the sub-sectors or regions within the Canadian dairy processing industry that are not served by the current educational offerings and collaborate with educational and training institutions to determine how best to serve those populations.
-  Pilot training and reskilling programs that are specific to future skills needs in the dairy processing industry.
-  Align skills training with the industry's skills gap to ensure the next generation of worker has every opportunity for success.
-  Partner with industry and educators in further developing the Learning and Recognition Framework with new learning pathways and industry certifications.
-  Provide supervisory training for those currently holding, or transitioning to, supervisory positions to support new and existing supervisors in achieving success.
-  Ensure workers at all levels have access to Emotional Intelligence (EI) training to support more resilient and adaptable employees.





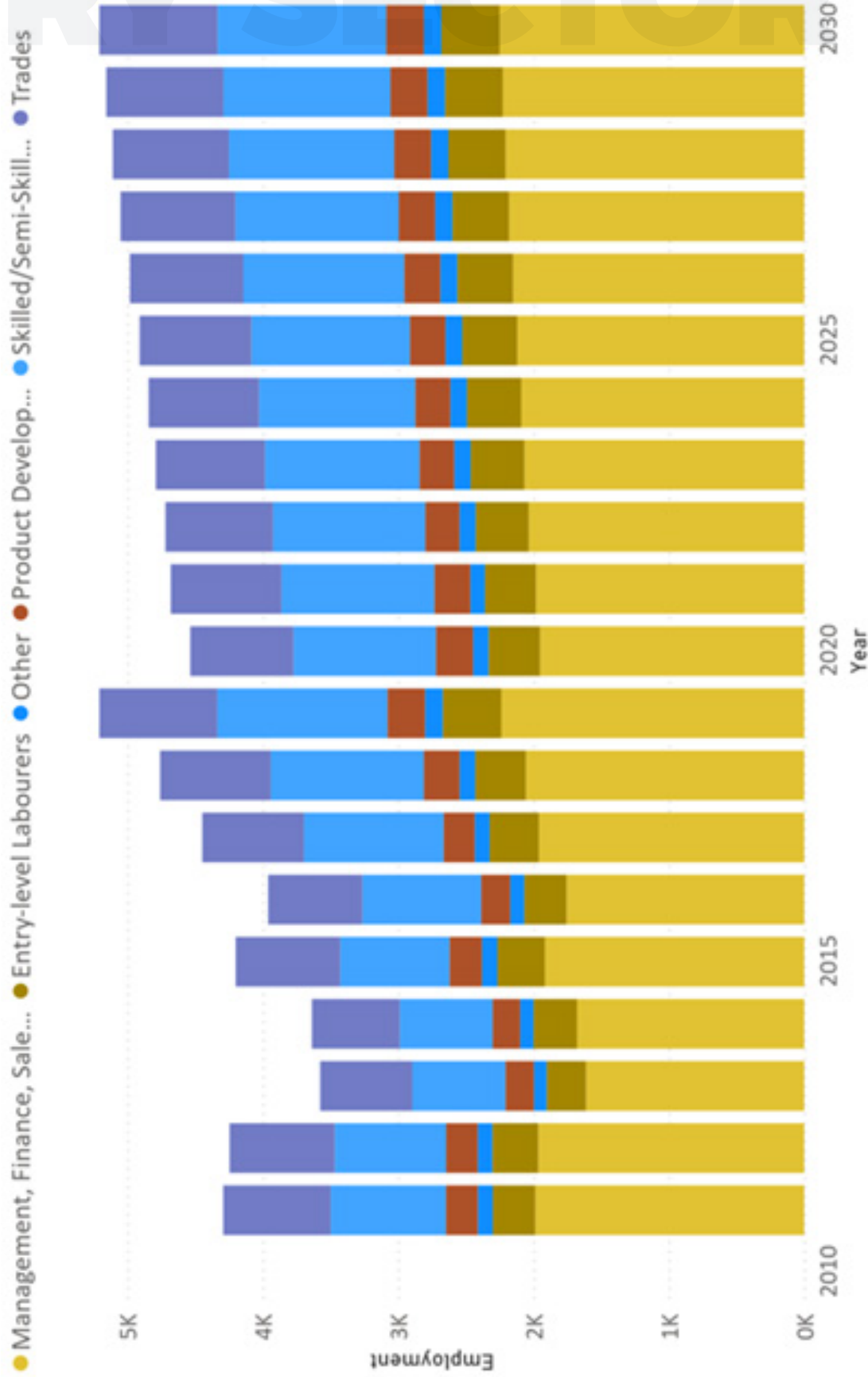
Appendices





APPENDIX A - Dairy Sector Growth and Outlook – WESTERN CANADA

EMPLOYMENT TREND BY OCCUPATION TYPE – WESTERN CANADA



Source: Statistics Canada, Prism Economics and Analysis 2021



The largest proportion of employment is within the management, sales, and administrative occupations (42% in 2021)

APPENDIX A - Dairy Sector Growth and Outlook – WESTERN CANADA

CHANGE IN EMPLOYMENT BY OCCUPATION FROM 2021 TO 2030 – WESTERN CANADA

Occupation	2021	2030	% Change	Change
Management, Finance, Sales, and Administration	1,982	2,250	13.6%	269
Management	402	434	8.1%	33
Administrative	484	526	8.7%	42
Sales	704	836	18.7%	132
Logistics	334	405	21.2%	71
Information Systems	58	49	-15.1%	-9
Entry-level Labourers	376	430	14.1%	53
Labourers	376	430	14.1%	53
Other	108	130	20.4%	22
All Other	108	130	20.4%	22
Product Development and Quality Control	266	277	4.3%	11
Technical Occupations in Physical Sciences	186	187	0.5%	1
Technical Occupations in Life Sciences	25	34	35.0%	9
Other Technical Occupations	55	57	3.0%	2
Skilled/Semi-Skilled	1,130	1,247	10.4%	117
Managers	263	289	9.8%	26
Operators	866	958	10.6%	91
Trades	818	873	6.7%	55
Drivers	246	265	7.9%	19
Material Handlers	246	247	0.5%	1
Other Trades	327	361	10.6%	34
Total	4,680	5,208	11.3%	528



Total dairy sector employment is projected to rise by 528 jobs, an increase of 11% between 2021 and 2030.



Largest increase is among Management, Finance, Sales and Administration workers which is estimated to see a growth of 269 new positions.





APPENDIX A - Dairy Sector Growth and Outlook – WESTERN CANADA

WORKFORCE HIRING REQUIREMENTS FROM 2021 TO 2030 – WESTERN CANADA

Occupation Type	Employment Growth	Replacement	Total Demand	Average Employment Growth	Average Replacement	Average Demand
Management, Finance, Sales, and Administration	297	414	711	30	42	70
Administrative	31	111	142	3	11	14
Information Systems	-5	7	2	-1	1	0
Logistics	75	77	152	8	8	15
Management	51	101	152	5	10	15
Sales	145	118	263	15	12	26
Entry-level Labourers	50	67	117	5	7	12
Labourers	50	67	117	5	7	12
Other	16	26	42	2	3	4
All Other	16	26	42	2	3	4
Product Development and Quality Control	3	38	41	0	3	4
Other Technical Occupations	0	10	10	0	1	1
Technical Occupations in Life Sciences	5	4	9	1	0	1
Technical Occupations in Physical Sciences	-2	24	22	0	2	2
Skilled/Semi-Skilled	194	246	440	19	25	44
Managers	45	57	102	5	6	10
Operators	149	189	338	15	19	34
Trades	110	155	265	11	16	27
Drivers	23	47	70	2	5	7
Material Handlers	39	40	79	4	4	8
Other Trades	48	68	116	5	7	12
Grand Total	670	946	1,616	67	96	161

Source: Statistics Canada, Prism Economics and Analysis 2021

APPENDIX A - Dairy Sector Growth and Outlook – WESTERN CANADA

WORKFORCE SUPPLY BY SOURCE FROM 2021 TO 2030 – WESTERN CANADA

Occupation Type	Youth New Entrants	Unemployment Contraction	Participation Adjustment	Other Sources	Total Supply
Management, Finance, Sales, and Administration	329	73	153	158	712
Management	33	8	35	76	152
Administrative	60	15	2	66	142
Sales	176	35	74	-22	263
Logistics	55	13	49	35	152
Information Systems	5	1	-7	3	2
Entry-level Labourers	82	19	13	3	117
Labourers	82	19	13	3	117
Other	19	4	7	12	42
All Other	19	4	7	12	42
Product Development and Quality Control	38	7	-11	8	41
Technical Occupations in Physical Sciences	27	5	-12	2	22
Technical Occupations in Life Sciences	4	1	4	1	9
Other Technical Occupations	7	1	-3	5	10
Skilled/Semi-Skilled	159	31	134	116	440
Managers	25	3	39	35	102
Operators	134	27	95	81	338
Trades	139	40	31	55	265
Drivers	35	11	1	23	70
Material Handlers	54	15	9	1	79
Other Trades	50	13	21	31	116
Total	766	173	326	352	1,617

Source: Statistics Canada, Prism Economics and Analysis 2021





APPENDIX A - Dairy Sector Growth and Outlook – WESTERN CANADA

LABOUR MARKET TIGHTNESS BY OCCUPATION FROM 2022 TO 2030 – WESTERN CANADA

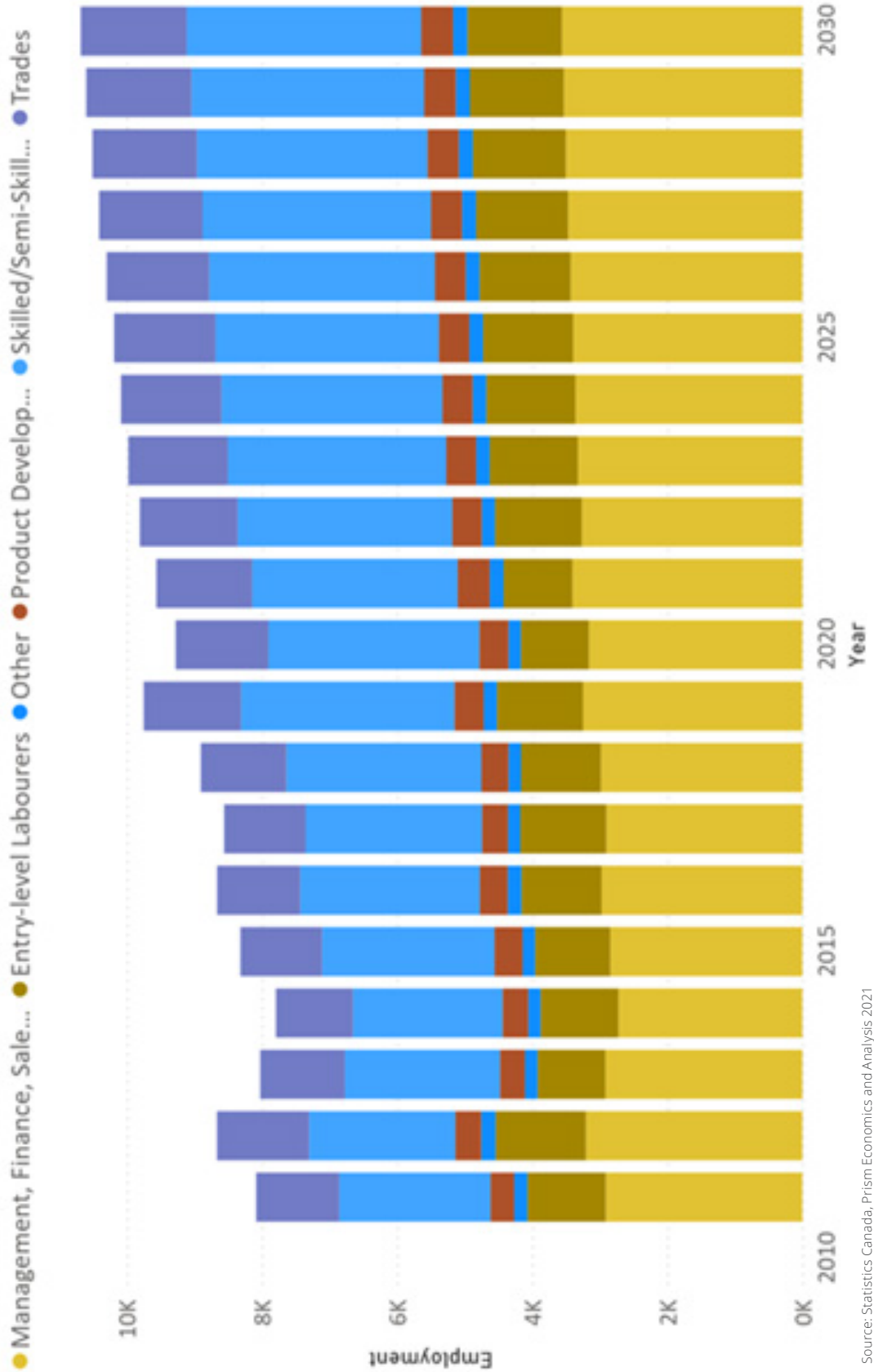
Labour market recruitment challenge rank: 1 (less than normal), 2 (normal) or 3 (greater than normal). A “2” (or normal) should be interpreted as comparable challenges to previous years; “1” as less challenging than previous years; and “3” as more challenging relative to previous years.	Less than normal	Normal	Greater than normal
	1	2	3

Occupation Type	2022	2023	2024	2025	2026	2027	2028	2029	2030
Management, Finance, Sales, and Administration									
Management									
Administrative									
Sales									
Logistics									
Information Systems									
Entry-level Labourers									
Labourers									
Other									
Product Development and Quality Control									
Technical Occupations in Physical Sciences									
Technical Occupations in Life Sciences									
Other Technical Occupations									
Skilled/Semi-Skilled									
Managers									
Operators									
Trades									
Drivers									
Material Handlers									
Other Trades									
Total									

Source: Statistics Canada, Prism Economics and Analysis 2021

APPENDIX B - Dairy Sector Growth and Outlook – ONTARIO

EMPLOYMENT TREND BY OCCUPATION TYPE - ONTARIO



The largest proportion of employment is within the management, sales, and administrative occupations (36% in 2021).

A similar proportion of employment is within the skilled and semiskilled occupations (32% in 2021)





APPENDIX B - Dairy Sector Growth and Outlook – ONTARIO

CHANGE IN EMPLOYMENT BY OCCUPATION FROM 2021 TO 2030 – ONTARIO

Occupation	2021	2030	% Change	Change
Management, Finance, Sales, and Administration	3,405	3,558	4.5%	154
Management	719	767	6.6%	48
Administrative	809	760	-6.1%	-49
Sales	1,105	1,247	12.9%	143
Logistics	566	608	7.4%	42
Information Systems	206	177	-14.0%	-29
Entry-level Labourers	1,015	1,398	37.7%	383
Labourers	1,015	1,398	37.7%	383
Other	206	212	2.9%	6
All Other	206	212	2.9%	6
Product Development and Quality Control	475	472	-0.6%	-3
Technical Occupations in Physical Sciences	338	315	-6.8%	-23
Technical Occupations in Life Sciences	53	63	19.5%	10
Other Technical Occupations	84	94	11.9%	10
Skilled/Semi-Skilled	3,041	3,471	14.1%	429
Managers	645	745	15.4%	100
Operators	2,396	2,726	13.8%	330
Trades	1,418	1,569	10.6%	151
Drivers	364	424	16.7%	61
Material Handlers	489	518	5.9%	29
Other Trades	565	627	10.8%	61
Total	9,560	10,680	11.7%	1,120



Total dairy sector employment is projected to rise by 1,120 jobs, an increase of 11.7% between 2021 and 2030.



Largest increase is among skilled and semi-skilled workers which is estimated to see a growth of 429 new positions.



Proportionally, the largest amount of growth is expected among entry level labourers at 37.7% or 383 new positions.

Source: Statistics Canada, Prism Economics and Analysis 2021

APPENDIX B - Dairy Sector Growth and Outlook – ONTARIO

WORKFORCE HIRING REQUIREMENTS FROM 2021 TO 2030 – ONTARIO

Occupation Type	Employment Growth	Replacement	Total Demand	Average Employment Growth	Average Replacement	Average Demand
Management, Finance, Sales, and Administration	401	667	1,068	40	66	106
Administrative	56	164	220	6	16	22
Information Systems	-3	28	25	0	3	2
Logistics	50	121	171	5	12	17
Management	131	182	313	13	18	31
Sales	167	172	339	17	17	34
Entry-level Labourers	393	253	646	39	25	65
Labourers	393	253	646	39	25	65
Other	28	44	72	3	4	7
All Other	28	44	72	3	4	7
Product Development and Quality Control	40	71	111	4	8	12
Other Technical Occupations	9	17	26	1	2	3
Technical Occupations in Life Sciences	9	8	17	1	1	2
Technical Occupations in Physical Sciences	22	46	68	2	5	7
Skilled/Semi-Skilled	348	723	1071	35	72	107
Managers	24	158	182	2	16	18
Operators	324	565	889	32	56	89
Trades	195	300	495	20	30	49
Drivers	83	79	162	8	8	16
Material Handlers	17	87	104	2	9	10
Other Trades	95	134	229	10	13	23
Grand Total	1,405	2,058	3,463	141	205	346

Source: Statistics Canada, Prism Economics and Analysis 2021





APPENDIX B - Dairy Sector Growth and Outlook – ONTARIO

WORKFORCE SUPPLY BY SOURCE FROM 2021 TO 2030 – ONTARIO

Occupation Type	Youth New Entrants	Unemployment Contraction	Participation Adjustment	Other Sources	Total Supply
Management, Finance, Sales, and Administration	940	51	298	-221	1,068
Management	132	6	117	57	313
Administrative	168	10	37	6	220
Sales	464	24	119	-267	339
Logistics	139	9	31	-9	171
Information Systems	38	2	-7	-8	25
Entry-level Labourers	389	31	331	-105	646
Labourers	389	31	331	-105	646
Other	53	3	21	-6	72
All Other	53	3	21	-6	72
Product Development and Quality Control	110	7	28	-32	112
Technical Occupations in Physical Sciences	78	5	12	-27	68
Technical Occupations in Life Sciences	12	1	8	-3	17
Other Technical Occupations	20	1	7	-2	26
Skilled/Semi-Skilled	756	47	254	13	1,070
Managers	139	4	15	23	182
Operators	617	42	239	-10	889
Trades	367	21	153	-46	496
Drivers	84	4	75	-1	162
Material Handlers	147	10	-4	-49	104
Other Trades	137	7	81	4	229
Total	2,615	160	1,085	-398	3,462

Source: Statistics Canada, Prism Economics and Analysis 2021

APPENDIX B - Dairy Sector Growth and Outlook – ONTARIO

LABOUR MARKET TIGHTNESS BY OCCUPATION FROM 2022 TO 2030 – ONTARIO

Occupation Type	2022	2023	2024	2025	2026	2027	2028	2029	2030
	Less than normal 1	Normal 2	Greater than normal 3						
Labour market recruitment challenge rank: 1 (less than normal), 2 (normal) or 3 (greater than normal). A "2" (or normal) should be interpreted as comparable challenges to previous years; "1" as less challenging than previous years; and "3" as more challenging relative to previous years.									
Management, Finance, Sales, and Administration									
Management									
Administrative									
Sales									
Logistics									
Information Systems									
Entry-level Labourers									
Labourers									
Other									
Product Development and Quality Control									
Technical Occupations in Physical Sciences									
Technical Occupations in Life Sciences									
Other Technical Occupations									
Skilled/Semi-Skilled									
Managers									
Operators									
Trades									
Drivers									
Material Handlers									
Other Trades									
Total									

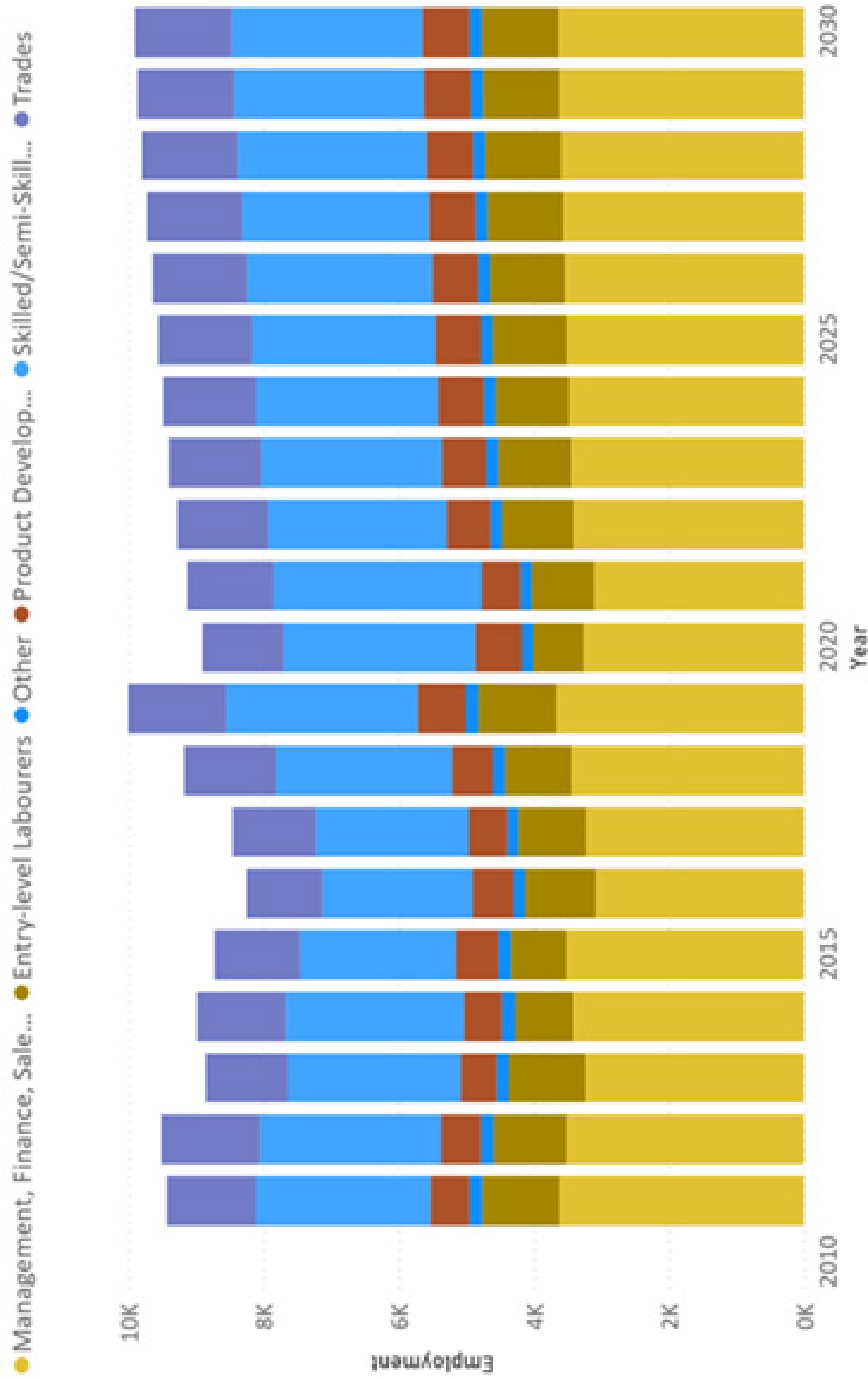
Source: Statistics Canada, Prism Economics and Analysis 2021





APPENDIX C - Dairy Sector Growth and Outlook – QUEBEC

EMPLOYMENT TREND BY OCCUPATION TYPE – QUEBEC



Source: Statistics Canada, Prism Economics and Analysis 2021



The largest proportion of employment is within the management, sales, and administrative occupations (34% in 2021)

APPENDIX C - Dairy Sector Growth and Outlook – QUEBEC

CHANGE IN EMPLOYMENT BY OCCUPATION FROM 2021 TO 2030 – QUEBEC

Occupation	2021	2030	% Change	Change
Management, Finance, Sales, and Administration	3,103	3,636	17.2%	533
Management	766	916	19.5%	150
Administrative	719	821	14.1%	101
Sales	916	1,089	18.9%	173
Logistics	553	620	12.0%	66
Information Systems	148	190	28.8%	43
Entry-level Labourers	935	1,137	21.7%	203
Labourers	935	1,137	21.7%	203
Other	159	184	15.8%	25
All Other	159	184	15.8%	25
Product Development and Quality Control	575	689	20.0%	115
Technical Occupations in Physical Sciences	449	526	17.2%	77
Technical Occupations in Life Sciences	62	72	15.5%	10
Other Technical Occupations	63	91	44.1%	28
Skilled/Semi-Skilled	3,076	2,826	-8.1%	-250
Managers	356	403	13.2%	47
Operators	2,721	2,423	-10.9%	-297
Trades	1,279	1,439	12.5%	160
Drivers	345	325	-5.7%	-20
Material Handlers	426	524	23.0%	98
Other Trades	508	589	16.0%	81
Total	9,126	9,911	8.6%	786



Total dairy sector

employment is projected to rise by 786 jobs, an increase of 8.6% between 2021 and 2030.



Largest increase is among Management, Finance, Sales and Administration workers which is estimated to see a growth of 533 new positions.

Source: Statistics Canada, Prism Economics and Analysis 2021





APPENDIX C - Dairy Sector Growth and Outlook – QUEBEC

WORKFORCE HIRING REQUIREMENTS FROM 2021 TO 2030 – QUEBEC

Occupation Type	Employment Growth	Replacement	Total Demand	Average Employment	Growth	Average Replacement	Average Demand
Management, Finance, Sales, and Administration	374	900	1,274		37	91	127
Administrative	26	227	253		3	23	25
Information Systems	-6	39	33		-1	4	3
Logistics	12	160	172		1	16	17
Management	146	275	421		15	28	42
Sales	196	199	395		20	20	40
Entry-level Labourers	386	258	644		39	26	64
Labourers	386	258	644		39	26	64
Other	16	44	60		2	4	6
All Other	16	44	60		2	4	6
Product Development and Quality Control	3	122	125		0	12	12
Other Technical Occupations	1	22	23		0	2	2
Technical Occupations in Life Sciences	1	12	13		0	1	1
Technical Occupations in Physical Sciences	1	88	89		0	9	9
Skilled/Semi-Skilled	-17	766	749		-2	77	75
Managers	-22	110	88		-2	11	9
Operators	5	656	661		1	66	66
Trades	239	332	571		24	33	57
Drivers	-9	78	69		-1	8	7
Material Handlers	139	111	250		14	11	25
Other Trades	109	143	252		11	14	25
Grand Total	1,001	2,422	3,423		100	243	341

Source: Statistics Canada, Prism Economics and Analysis 2021

APPENDIX C - Dairy Sector Growth and Outlook – QUEBEC

WORKFORCE SUPPLY BY SOURCE FROM 2021 TO 2030 – QUEBEC

Occupation Type	Youth New Entrants	Unemployment Contraction	Participation Adjustment	Other Sources	Total Supply
Management, Finance, Sales, and Administration	808	334	-295	426	1,274
Management	134	44	57	185	421
Administrative	144	75	-124	158	253
Sales	373	148	-100	-26	395
Logistics	127	57	-103	91	172
Information Systems	31	10	-25	18	33
Entry-level Labourers	308	69	248	19	644
Labourers	308	69	248	19	644
Other	41	19	-23	22	60
All Other	41	19	-23	22	60
Product Development and Quality Control	134	55	-107	43	126
Technical Occupations in Physical Sciences	104	45	-89	29	89
Technical Occupations in Life Sciences	14	3	-6	2	13
Other Technical Occupations	16	6	-12	13	23
Skilled/Semi-Skilled	592	211	-440	386	749
Managers	64	44	-110	90	88
Operators	528	167	-330	296	661
Trades	323	154	-69	163	571
Drivers	64	32	-72	45	69
Material Handlers	137	65	9	38	250
Other Trades	122	58	-6	79	252
Total	2,206	843	-686	1,060	3,423

Source: Statistics Canada, Prism Economics and Analysis 2021





APPENDIX C - Dairy Sector Growth and Outlook – QUEBEC

LABOUR MARKET TIGHTNESS BY OCCUPATION FROM 2022 TO 2030 – QUEBEC

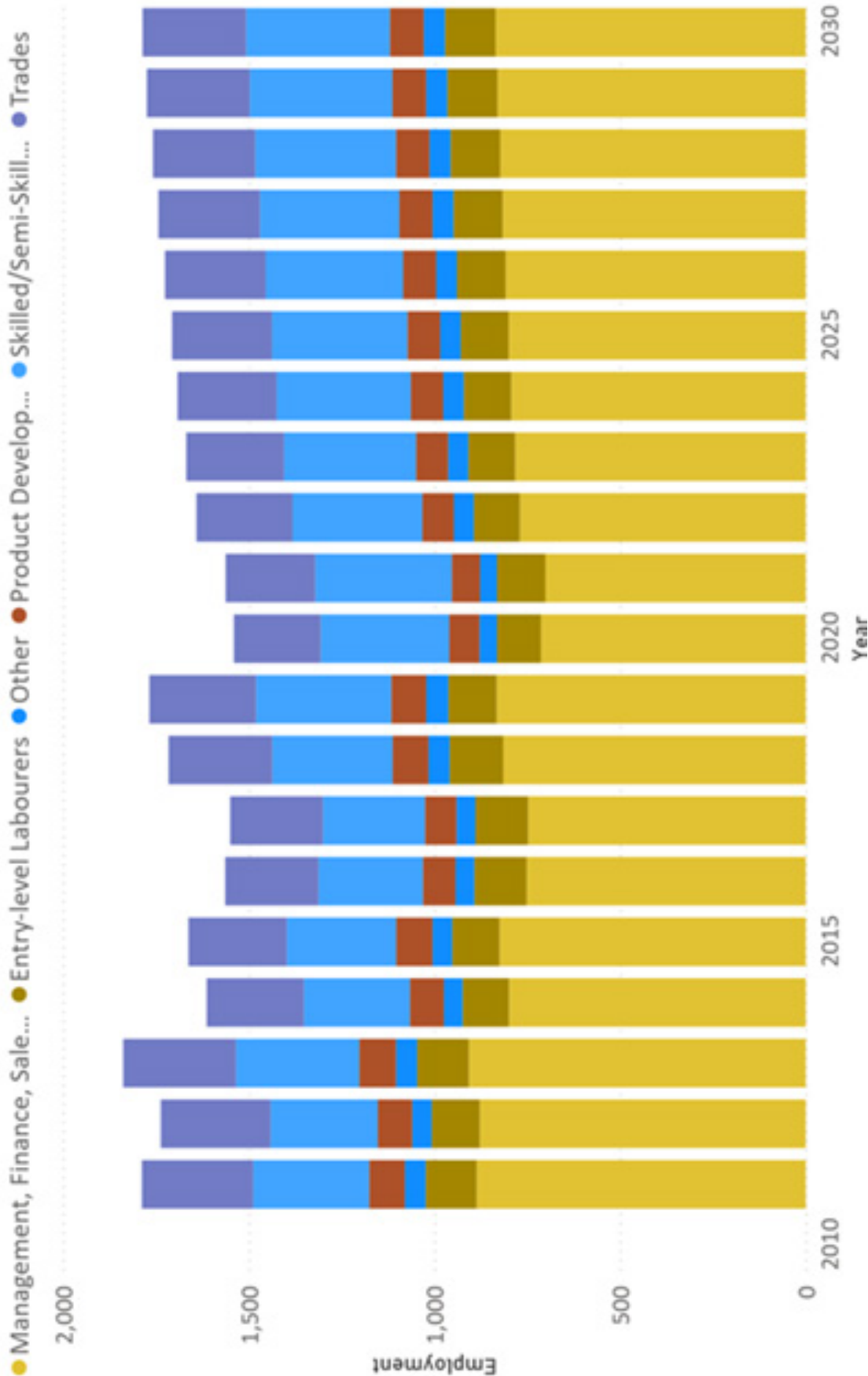
Labour market recruitment challenge rank: 1 (less than normal), 2 (normal) or 3 (greater than normal). A "2" (or normal) should be interpreted as comparable challenges to previous years; "1" as less challenging than previous years; and "3" as more challenging relative to previous years.	Less than normal	Normal	Greater than normal
	1	2	3

Occupation Type	2022	2023	2024	2025	2026	2027	2028	2029	2030
Management, Finance, Sales, and Administration									
Management									
Administrative									
Sales									
Logistics									
Information Systems									
Entry-level Labourers									
Labourers									
Other									
Product Development and Quality Control									
Technical Occupations in Physical Sciences									
Technical Occupations in Life Sciences									
Other Technical Occupations									
Skilled/Semi-Skilled									
Managers									
Operators									
Trades									
Drivers									
Material Handlers									
Other Trades									
Total									

Source: Statistics Canada, Prism Economics and Analysis 2021

APPENDIX D - Dairy Sector Growth and Outlook – ATLANTIC CANADA

EMPLOYMENT TREND BY OCCUPATION TYPE – ATLANTIC CANADA



Source: Statistics Canada, Prism Economics and Analysis 2021

The largest proportion of employment is within the management, sales, and administrative occupations (45% in 2021)





APPENDIX D - Dairy Sector Growth and Outlook – ATLANTIC CANADA

CHANGE IN EMPLOYMENT BY OCCUPATION FROM 2021 TO 2030 – ATLANTIC CANADA

Occupation	2021	2030	% Change	Change
Management, Finance, Sales, and Administration	701	835	19.1%	134
Management	118	151	28.7%	34
Administrative	163	190	16.0%	26
Sales	315	366	16.0%	50
Logistics	93	116	24.4%	23
Information Systems	12	12	7.2%	1
Entry-level Labourers	130	136	4.5%	6
Labourers	130	136	4.5%	6
Other	45	57	26.2%	12
All Other	45	57	26.2%	12
Product Development and Quality Control	76	91	19.7%	15
Technical Occupations in Physical Sciences	58	67	14.4%	8
Technical Occupations in Life Sciences	5	7	44.0%	2
Other Technical Occupations	13	18	34.3%	5
Skilled/Semi-Skilled	368	387	5.4%	20
Managers	75	64	-15.5%	-12
Operators	292	324	10.8%	31
Trades	242	279	15.4%	37
Drivers	124	137	11.3%	14
Material Handlers	46	59	28.7%	13
Other Trades	72	83	14.1%	10
Total	1,562	1,786	14.3%	224



Total dairy sector employment is projected to rise by 224 jobs, an increase of 14% between 2021 and 2030.



Largest increase is among Management, Finance, Sales and Administration workers which is estimated to see a growth of 134 new positions.

Source: Statistics Canada, Prism Economics and Analysis 2021

APPENDIX D - Dairy Sector Growth and Outlook – ATLANTIC CANADA

WORKFORCE HIRING REQUIREMENTS FROM 2021 TO 2030 – ATLANTIC CANADA

Occupation Type	Employment Growth	Replacement	Total Demand	Average Employment	Growth	Average Replacement	Average Demand
Management, Finance, Sales, and Administration	121	263	384		12	27	39
Administrative	27	69	96		3	7	10
Information Systems	0	3	3		0	0	0
Logistics	23	38	61		2	4	6
Management	17	58	75		2	6	8
Sales	54	95	149		5	10	15
Entry-level Labourers	18	40	58		2	4	6
Labourers	18	40	58		2	4	6
Other	10	19	29		1	2	3
All Other	10	19	29		1	2	3
Product Development and Quality Control	9	22	31		1	2	3
Other Technical Occupations	3	6	9		0	1	1
Technical Occupations in Life Sciences	1	2	3		0	0	0
Technical Occupations in Physical Sciences	5	14	19		1	1	2
Skilled/Semi-Skilled	42	138	180		4	14	18
Managers	4	23	27		0.4	2	3
Operators	38	115	153		3.8	12	15
Trades	44	87	131		4	9	13
Drivers	23	43	66		2	4	7
Material Handlers	6	16	22		1	2	2
Other Trades	15	28	43		2	3	4
Grand Total	244	569	813		24	58	82

Source: Statistics Canada, Prism Economics and Analysis 2021





APPENDIX D - Dairy Sector Growth and Outlook – ATLANTIC CANADA

WORKFORCE SUPPLY BY SOURCE FROM 2021 TO 2030 – ATLANTIC CANADA

Occupation Type	Youth New Entrants	Unemployment Contraction	Participation Adjustment	Other Sources	Total Supply
Management, Finance, Sales, and Administration	204	16	89	75	385
Management	27	2	13	34	75
Administrative	37	4	20	36	96
Sales	115	8	38	-12	149
Logistics	24	2	18	17	61
Information Systems	3	0	0	1	3
Entry-level Labourers	38	9	0	11	58
Labourers	38	9	0	11	58
Other	14	2	6	7	29
All Other	14	2	6	7	29
Product Development and Quality Control	21	3	4	4	31
Technical Occupations in Physical Sciences	16	2	1	1	19
Technical Occupations in Life Sciences	1	0	1	0	3
Other Technical Occupations	4	0	2	3	9
Skilled/Semi-Skilled	86	16	8	69	180
Managers	12	1	1	13	27
Operators	74	15	8	56	153
Trades	62	10	25	34	131
Drivers	26	5	13	22	66
Material Handlers	17	3	1	1	22
Other Trades	19	2	11	11	43
Total	424	56	133	200	814

Source: Statistics Canada, Prism Economics and Analysis 2021

APPENDIX D - Dairy Sector Growth and Outlook – ATLANTIC CANADA

LABOUR MARKET TIGHTNESS BY OCCUPATION FROM 2022 TO 2030 – ATLANTIC CANADA

	Less than normal	Normal	Greater than normal
	1	2	3

Labour market recruitment challenge rank: 1 (less than normal), 2 (normal) or 3 (greater than normal). A "2" (or normal) should be interpreted as comparable challenges to previous years; "1" as less challenging than previous years; and "3" as more challenging relative to previous years.

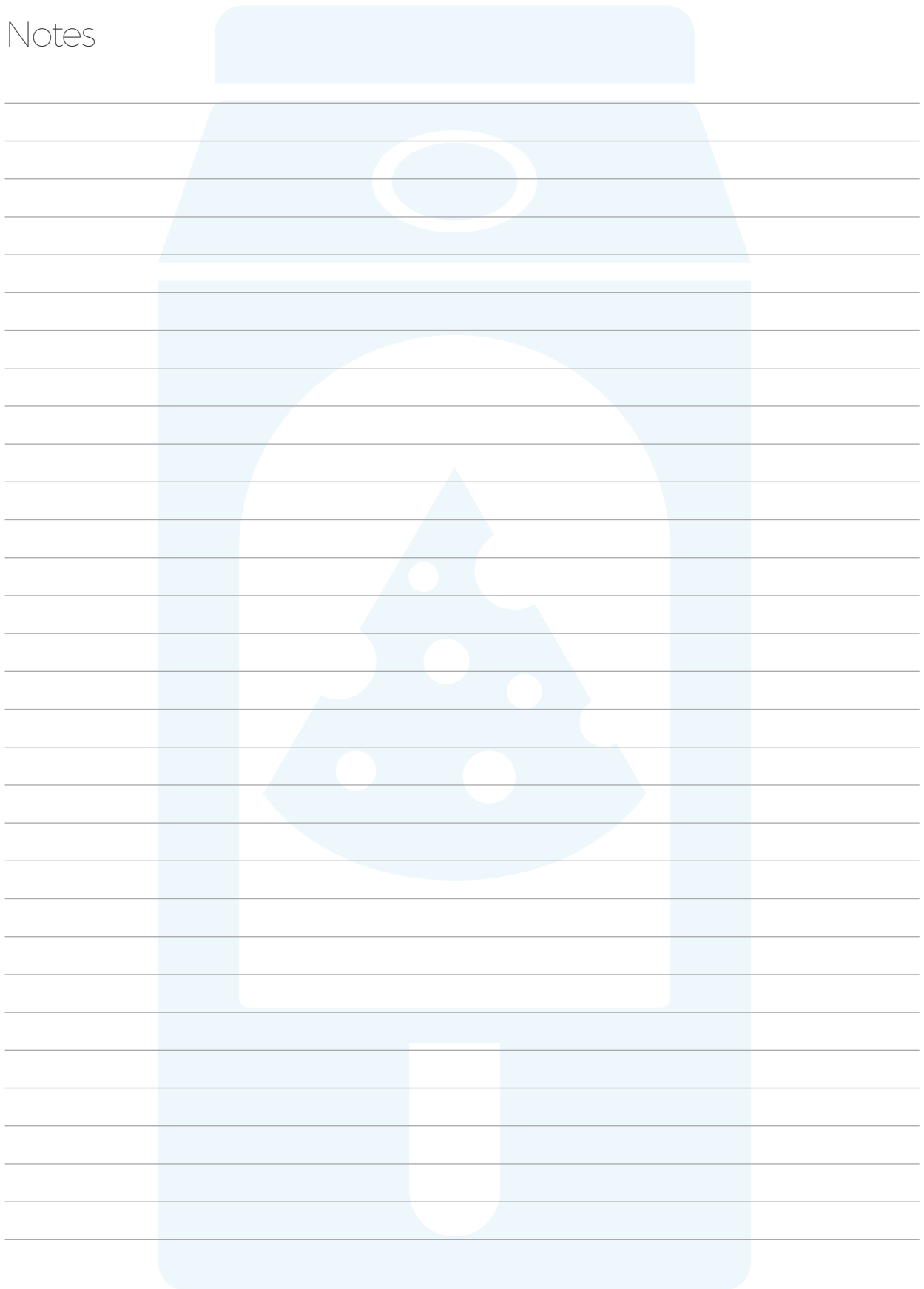
Occupation Type	2022	2023	2024	2025	2026	2027	2028	2029	2030
Management, Finance, Sales, and Administration									
Management									
Administrative									
Sales									
Logistics									
Information Systems									
Entry-level Labourers									
Labourers									
Other									
Product Development and Quality Control									
Technical Occupations in Physical Sciences									
Technical Occupations in Life Sciences									
Other Technical Occupations									
Skilled/Semi-Skilled									
Managers									
Operators									
Trades									
Drivers									
Material Handlers									
Other Trades									
Total									

Source: Statistics Canada, Prism Economics and Analysis 2021



DAIRY SECTOR

Notes





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