PEI Agriculture Sector Council

Study of Labour Supply and Demand Within the PEI Agriculture Sector

Technical Report

October 2007

Atlantic Evaluation Group Inc

Acknowledgements

This report was written for the PEI Agriculture Sector Council by Paul Chaulk and Steve McQuaid of the Atlantic Evaluation Group in partnership with Wendy MacDonald and Associates and Charley Coles under the guidance and direction of the Project Steering Committee, consisting of:

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Table of Contents

1. Introduction

1.1 Background

The PEI Agriculture Sector Council Board of Directors identified the recruitment and retention of agriculture workers as a major issue facing the PEI Agriculture Industry that required further research. While past studies had looked at industry labour force issues in general terms, there have not been any research efforts designed to examine the specific reasons behind labour recruitment and retention difficulties experienced within the industry. To address these information gaps, the Council Board commissioned a comprehensive labour market supply and demand study.

1.2 Purpose

The purpose of this study is to assist industry stakeholders to be aware of, and better understand, the dynamics of the agriculture labour force and issues related to recruitment and retention of workers. The study report will also assist in the development of solutions and recommendations for more effective human resource planning and practices across the industry.

1.3 Objectives

The study objectives included:

- To improve understanding of the nature of supply and demand for labour in the PEI agricultural industry by sector.
- To investigate the labour recruitment and retention issues in the PEI agriculture sector.
- To analyze labour shortages/surpluses and project future supply and demand in the PEI agriculture sector.
- To provide a profile of the agricultural labour force by agricultural industry and to profile current skill requirements.
- To provide an overview of supply and demand issues and trends facing the industry and identify best practices with some attention to feasibility of implementation.
- To provide a foundation for strategic human resource planning in the sector.

2. Methodology

2.1 Overview

The study research process included reviewing and examining the findings of previous studies, reviewing Census data, other relevant secondary data, and gathering input from farm employers, farm workers, and key industry stakeholders. To address the study objectives, a series of research/work tasks were completed including:

- A review of available reports/documents and secondary data.
- The collection of quantitative data through farm employer and farm worker surveys.
- The collection of qualitative data through key informant interviews with farm employers and industry stakeholders, farm employer focus groups, and farm worker focus groups.

The input of the project steering committee and a discussion with key industry stakeholders were used to help formulate the study conclusions and recommendations.

2.2 Document Review and Secondary Data

The available secondary data was reviewed in order to identify and analyze key trends and factors impacting on the industry, and existing reports were examined to determine how the industry generally was addressing the challenge of labour force decline, and the recruitment and retention of farm labour. The range of data sources included:

- Census and business registry data, which was used to develop an overall demographic picture of the sector including its employers and workers using standard industry and occupational coding.
- Other labour market trends and pressures, such as the Labour Force Survey, Provincial Treasury long-range population forecasts, etc.
- Relevant reports including previous agriculture industry sector studies (PEI or nationally), studies of the overall PEI labour market, and other relevant reports.

The complete list of data sources reviewed is found in Appendix A.

2.3 Quantitative Data Collection

Survey Development

Two comprehensive quantitative surveys were designed and administered to gather labour market supply and demand information that helped to describe both current needs and issues, and future needs, trends and labour market requirements. The data gathered from these surveys helped to identify the sectors, occupations, and/or skill levels that have, or are projected to have, an imbalance between labour market supply and demand, and highlighted the areas requiring intervention.

Survey instruments used standard questions where available (especially in regards to industry sector, job classification, and demographics). The employer survey focused on current and future demand, issues with recruitment and retention, and general trends and conditions. The worker survey focused in part on worker demographics, future intentions, and perspectives on recruitment and retention. Each survey was about 12-15 minutes in length.

The survey instruments were pilot tested with a small group of representatives of farm employers and farm workers. Revisions were made to the original draft based on the feedback from the participants in the pilot test groups.

A detailed companion report is available from the PEI Agriculture Sector Council that includes all the instruments used in this study (see Appendix B).

Farm Employer Survey Administration

The employer survey included farm operators, regardless of whether they currently employed paid farm labour. This was important, as it is possible that those not employing farm labour may face worker recruitment and retention challenges that resulted in the lack of paid employees.[1] The survey was completed predominantly through telephone interviews although a few employers chose to complete paper versions of the survey. A prize for participating in the survey (a gift certificate) was offered as an incentive to improve response.

In administering the employer survey, a database was developed using the following methods:

- The Statistical Unit Structures (SUS) list of employers complied by Statistics Canada and available from Service Canada.
- Names of employers provided by several agricultural commodity groups (who provided vital assistance to survey sampling and administration); samples were drawn in a pseudo-random manner to avoid bias in selection of employers.

A total of 167 employers were surveyed from March to May 2007. This provided a sampling accuracy (margin of error) of +/- 7.1%, 19 times out of 20, based on finite population correction factor (i.e., correcting for the total of approximately 1,263 employers according to Statistics Canada). Sampling was stratified to ensure an adequate response from large and small employers, the three counties of PEI, and the main North American Industry Classification System (NAICS) industry groupings, with adequate representation from the major agricultural commodities in PEI (i.e., potatoes, beef, swine, dairy, vegetable and cole crops, fruit and berry crops). In some cases, all members of the commodity group in the database were contacted to ensure an adequate sample was obtained.

Farm Worker Survey Administration

The worker survey was completed predominantly through telephone interviews although a few workers completed a written version of the survey. The worker survey was a sample of

[1] *Throughout this document 'employee' refers to those persons employed for farm producers whereas 'worker' refers to the broader population of persons available for work in the industry regardless of whether they are currently employed.*

convenience as it was not possible to obtain a master list of farm workers from which to draw a random sample. Farm workers were identified to complete the survey in the following manner:

- A telephone survey of workers identified through the Agriculture Employment Officers in each county (major source of respondents).
- Random general public telephone calls to invite participation in the telephone survey.
- Having farm operators circulate a written version of the survey to their farm workers with stamped, self-addressed envelopes.

Each of these methods of identifying survey respondents has inherent biases although it was hoped that the biases of each method would balance each other out to some extent. Nevertheless, it is not known to what extent the survey respondents are representative of the total pool of agriculture workers in PEI. A prize for participating in the survey (a gift certificate) was offered as an incentive to improve response.

A total of 116 farm workers (who had worked on a farm during the calendar year 2006) participated in the survey. It was not possible to stratify workers by geography or type of employer but efforts were made to ensure a variety of workers participated in the survey. A profile of respondents is included in the Section 5.

This provided a sampling accuracy (margin of error) of +/- 8.9%, 19 times out of 20, based on finite population correction factor (i.e., correcting for the total of approximately 2,185 agricultural workers, excluding farm operators, according to Statistics Canada).

2.4 Qualitative Data Collection

Interview Guides

The qualitative research methodology employed the use of structured interview questions to guide key informant interviews with industry stakeholders and focus group sessions with farm operators and farm workers. These interview guides were developed based on the study objectives and refined based on feedback from the Project Steering Committee. Each key informant interview was about one hour in length. The focus group sessions were about two hours in length.

Key Informant Interviews

A select number (9) of key informants (farm operators, farm workers, other industry stakeholders) were interviewed initially to gather their ideas and suggestions regarding the development of the data collection instruments (i.e., farm employer and farm worker survey instruments, key informant and focus group interview guides). The key informants also provided suggestions as to how best to administer the farm employer and farm worker surveys (i.e., who to survey, when to survey, etc.), and how best to identify key informant and focus group participants. An additional six key informants were interviewed later in the study process to further explore labour issues in the industry.

In total, 15 key informant interviews were conducted across the industry sectors to gather the views, perceptions and suggested solutions. The key informants were identified based on the advice of the project steering committee. The key informant list included:

- One key leader/stakeholder per farming sector or commodity group;
- One member of the PEI Agriculture Sector Council Board;
- One representative from an agriculture training institution (Nova Scotia Agricultural College);
- One representative from the Department of Agriculture.

Focus Groups

Seven focus groups were conducted; four with farm operators and three with farm workers. See Section 5 for a profile of focus group participants.

One employer focus group was conducted in each county. Efforts were made to include employers in the major industry sub-sectors (potato, dairy, hog, cattle, fruit, vegetable), and to ensure there was a good cross section of small and large farm operations. A fourth employer focus group was held with a group of young farm operators attending the Conference for New Generation Farmers (Agriculture Unleashed – Charlottetown, February 22-23, 2007).

Three worker focus groups were held: one session was held in each county, with representation from the Farm Supervisor and Specialized Livestock Worker Occupation, the General Farm Worker occupation, and the Harvesting Labourer occupation.

2.5 Data Analysis

The Census and other secondary data were analyzed using descriptive statistics to identify the broad trends and factors that have been impacting on, and shaping, agriculture over the past decade or more, and more specifically those trends that have been impacting on the agriculture labour force.

Descriptive statistics (proportions, means, medians) were used to describe survey results. Employer survey results were broken down by industry sector and appropriate inferential statistics were used to determine if significant differences existed between each sector and other respondents not in that sector. Difficulties with recruitment and retention were also broken down by other demographics and by responses on other selected questions and inferential statistics applied. A stricter criteria of $p<0.01$ was used due to the number of tests conducted. An exact adjustment for number of tests was not performed. Only significant differences are reported in the text. It should be noted that sample size and thus ability to detect significant differences was more limited for sector and other demographic breakdowns. Finally, in relevant tables, factors were ranked according to two standard errors of the proportion.

The qualitative data (key informant interviews, focus group discussions) was analyzed according to key themes based on frequency and intensity of the responses provided. Verbatim quotes are included, where relevant.

3. Document Review

The broad findings of this review are summarized in this section and provide a useful context to this study. A detailed examination of the findings of the document review is included in a companion report (see Appendix B) available from the PEI Agriculture Sector Council.

The document review looked at three studies in particular:

- A literature review and environmental scan of agricultural human resource issues in Canada, conducted in 2005 by the George Morris Centre for the Canadian Federation of Agriculture.
- Two major studies completed in 2003 and 2004 by NeoInsight (an Ottawa based consultant company) that were commissioned by the PEI Agricultural Human Resources Development Council (predecessor to the current PEI Agriculture Sector Council) that explored labour force issues and farm training needs and gaps within the PEI context.

In 2005, the George Morris Centre scan noted a "relatively narrow list of major human resource issues" in the literature including:[2]

- A tightening of a skilled labour force in agriculture due to an aging labour force.
- Increased difficulty recruiting and retaining quality people.
- A negative public perception of careers in agriculture.
- A lack of a culture within the industry toward training and continuous learning.
- The lack of availability of seasonal and harvest labour.

The study further noted the almost universal difficulty of recruiting and retaining good people in agriculture, particularly in the crops sub-sector. Key factors in this difficulty include perceptions that agriculture pays relatively low wages, social safety net policies that effectively discriminate against seasonal farm work, and negative perceptions of careers in agriculture. In addition, the study found widespread gaps in the availability of trained workers in agriculture, in several areas:

- Training in basic technical skills.
- Training to upgrade skills within the experienced labour force.
- Business management training for both farm employees and employers.

The review indicated that existing training programs are poorly targeted, with training focused on basic skills rather than skills upgrading, and training program delivery that is not well matched to the needs and lifestyles of farm employers and farm workers. The report further described industry efforts to address these issues including government and third-party services that link agricultural employers with potential employees, programs that allow specific segments of

[2] *George Morris Centre, Al Mussell and Kate Stiefelmeyer, Environmental Scan and Literature Search of Agricultural Human Resource Issues. Canadian Federation of Agriculture, February 2005.*

Canadian agriculture to access offshore workers, and a range of initiatives directed at the domestic labour force. These latter initiatives, however, have not addressed the disincentives to work seasonally due to the Employment Insurance Program and the social safety net system. The study also described the educational programs available in Canada to new farmers or farm workers as relatively basic and often fragmented at the provincial level. Finally, the study strongly endorsed the sector council approach as part of a broad strategy to address the labour market and human resource challenges facing the industry.

In terms of the PEI context, two major studies commissioned by the PEI Agricultural Human Resources Development Council were completed by NeoInsight. In 2003, the company completed an environmental scan of the agricultural learning and skills development opportunities in PEI that identified six broad factors affecting the agricultural labour market:

- Farms are declining in number and increasing in size.
- Farm labour and skills are in demand, driven by a range of factors including declining supply, seasonality, competition from other industries, and a cost-price squeeze.
- Capital-intensive farming approaches are requiring enhanced financial and management expertise.
- Use of technology on farms continues to increase, reducing labour demand.
- Increasing regulatory and food safety requirements require new skills, knowledge, and attitudes.
- There is a gap between education levels and skills required, even with younger farmers.

Based on its assessment of available programs, the study noted, "*The PEI farm community has essentially no access to formal career training on the Island … It would appear that more distance education, flexible schedules, or on-the-job training closer to home could all benefit PEI future farmers and farm workers*." [3]

This study was followed up in 2004 by a more targeted examination of farm operator and farm worker skills training needs. This study provided guidance to the subsequent design of two major agricultural human resource programs, including the Future Farmers Program, and the Farm Technician Apprenticeship Program.

The 2003 NeoInsight report – *Agriculture Learning/Skills Development for PEI* – noted that the industry is increasingly seeing the value and importance of more formal training for both farm employers and farm workers at all levels.

In the past, no specific education or training has been required to become a General Farm Worker. Basic farm knowledge, usually obtained from working on a family farm, may be required for employment. Some employers may require more specialized training, such as farm equipment mechanics, agricultural welding, and pesticide use and applications. Such training is available through college programs and short courses offered by the PEI Agricultural Human

[3] *NeoInsight 2003, pp. 34-35.*

Resources Development Council or government agencies. Many employers also seek out workers with a Class 3 truck driver license. General Farm Workers have traditionally been able to progress to Farm Supervisors or Specialized Livestock Workers, such as dairy or cattle herdsperson, through experience.

In NeoInsight's Farm Learning Study 2004, farmers identified the following priorities for their workers:[4] *"Farmers rated safety the most important skill needed in farm workers. The important skills they told us they need in workers are essential skills and basic skills. Half of the top six skills were essential skills: communicating, motivating, getting along, and initiative. Basic skills like safety, operating equipment, and maintenance rated more highly than specialties like breeding, crop inspection, soil quality, transactions, and marketing. In open discussion about worker skills, production skills were mentioned most often. Farmers brought up eighteen skills related to production. Two-thirds of these mentions were skills related to livestock. These skills included milking, feeding, breeding, and husbandry. Other skills mentioned that relate to production include food safety, quality, grading potatoes, and product integrity. Farmers told us workers need to have basic mechanical skills, understand how to work safely, care for animals, know how to operate equipment or have a truck or pesticide license, and be responsible, trustworthy, and willing to work."* The study found that farmers varied in their preference for their workers to have prior training versus being trained on the job for its specific requirements.

During the past several years, in response to the needs outlined above, work has been underway to develop an apprentice training program for farm workers. In May 2005, the Minister of Education endorsed the Provincial Apprenticeship Board's recommendation and designated Farm Technician as an apprenticeable trade. Since that date the Farm Technician DACUM chart, developed by the Farm Technician Trade Advisory Committee, was presented to the Provincial Apprenticeship Board. Approval was given to present the DACUM Chart to an educational institution for development of the program. The Program is now awaiting final approval for implementation funding.

[4] *NeoInsight, Mike Atyeo, Scott Smith, Gord Hopkins. PEI Farm Learning Study and Designation Survey. Agricultural Human Resources Development Council, May 2004, p.2.*

4. Secondary Data

This section provides an overview of trends in farm operations in PEI as indicated in the recently released 2006 Census of Agriculture as well as previous Statistics Canada Census data. A detailed examination of secondary data is included in a companion report (see Appendix B) available from the PEI Agriculture Sector Council.

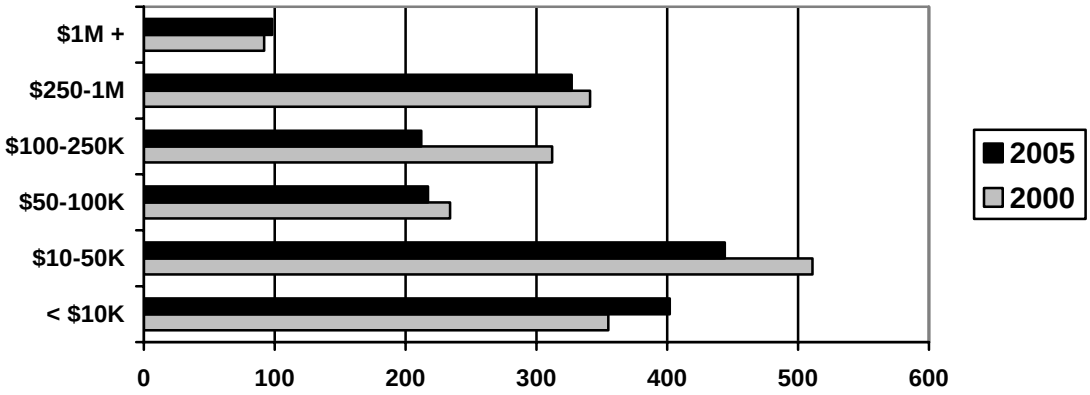
4.1 National Farm Trends

At a national level, the amount of land in agriculture remained largely unchanged since the 2001 Census data; however, the number of actual farms was down by 7.1%, and the number of operators was down by 5.5%. Data from the 2006 Census also indicates that farm size continues to increase, and the number of large farming operations continues to increase. There were also slightly more farmers working off-farm for part of the year, and slightly fewer farmers working full-time or year round on the farm.

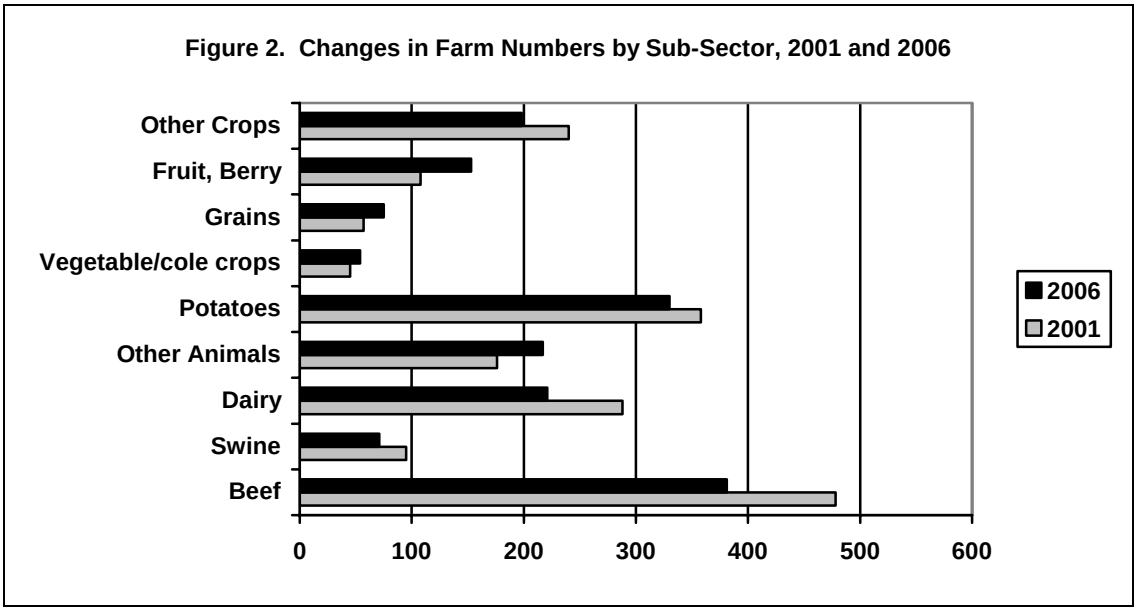
4.2 PEI Farm Trends

In PEI, the number of farms was down by 7.9%; from 1,845 farms in 2001 to 1,700 farms in 2006. Figure 1 shows that there was some growth among the largest and smallest farms, while there were declining numbers in all the middle ranges ($10K to $1M); the largest decline was in farms grossing in the $100-250K range.

Figure 1. PEI Farms by Receipts, 2000 and 2005

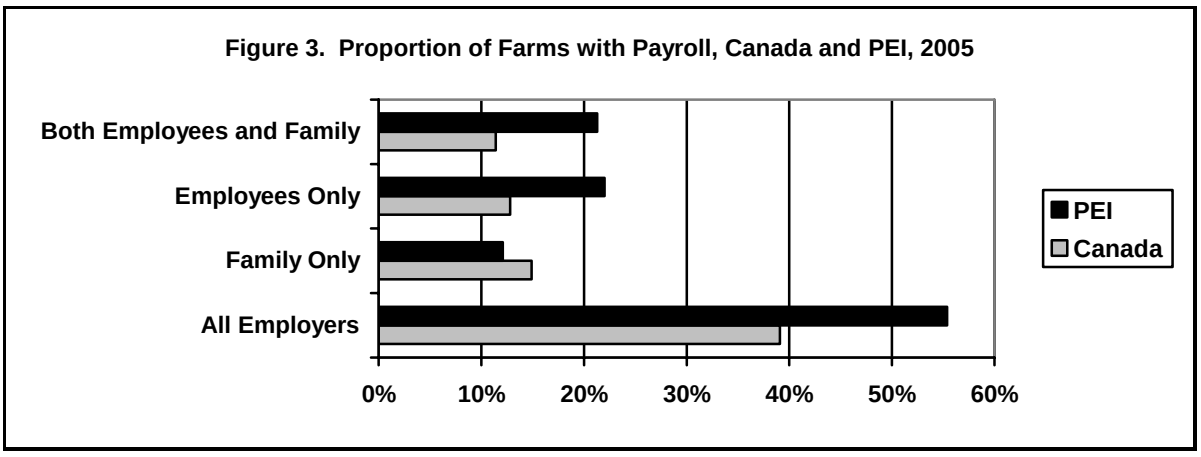


In terms of individual commodity sectors, there were declines in the larger sectors, while there was growth in the smaller sectors, as shown in Figure 2. For example, livestock farms (hogs, dairy, beef) were down by 14%, crops were down by 2%; however, there was growth in other animal farms (horses). In terms of crops, there were declines in potato and hay, while there was growth in other crops such as berries and vegetables.



4.3 PEI Farm Wage and Salary Trends

Wage and salary trends for PEI farm operations were higher than the national trend; 55% of Island farms had payroll, compared to 39% nationally, as shown in Figure 3. As well, Island farms were almost twice as likely as average to pay wages to employees, or employees plus family, and less likely to pay wages to family only.



Wages make up a larger than average share of Island farm expenditures; this area grew faster than other expenditures for Island farms. Among farms with payroll, wage and salary expenditures increased 24% since 2001, and wages and salaries increased from 15% of expenditures to 16% of overall farm expenditures over that time period. The increase in the proportion of expenditures spent on wages and salaries was evident despite large increases in other input costs such as fuel and fertilizer and decreases in the number of workers over that time period. Possible explanations include more hours worked per worker and/or greater hourly wages.

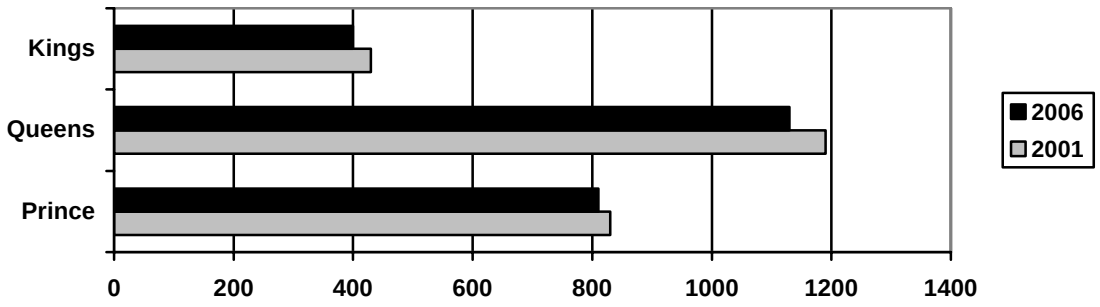
4.4 PEI Farm Operator Trends

Number of Farm Operators

Between 2001 and 2006, the number of farm operators in PEI declined by 5.9%, down 145 operators, from 2,455 to 2,310. This rate of decline was slightly higher than the national average decline of 5.5% between 2001 and 2006.

As indicated in Figure 4, the decline was somewhat unevenly spread across counties, with Kings seeing a 7% drop, Queens a 5% drop, and Prince a 2.4% drop.

Figure 4. Number of Farm Operators by County, 2001 and 2006



There was a distinct gender trend in the number of farm operators. The number of male operators declined by 8%, while the number of female operators increased by 10%.

The level of educational attainment of farm operators increased significantly over the 1991 to 2001 time period. The proportion with less than high school dropped sharply from 57% to 41%. The share with a high school diploma or uncompleted post-secondary education declined slightly from 21% to less than 20%, while the share with a post-secondary credential increased strongly from 26% to 40%.

There were also noticeable shifts in the age of farm operators; operators under age 35 were down 21% since 2001, those aged 35-54 were down 13%, while those in the 55+ group increased by 12%.

Finally, Island farmers were much more likely to work full-time on farm (57% vs. 47% nationally), and over two-thirds of Island farmers worked 50+ hours per week.

Number of Farm Operators Per Farm Operation

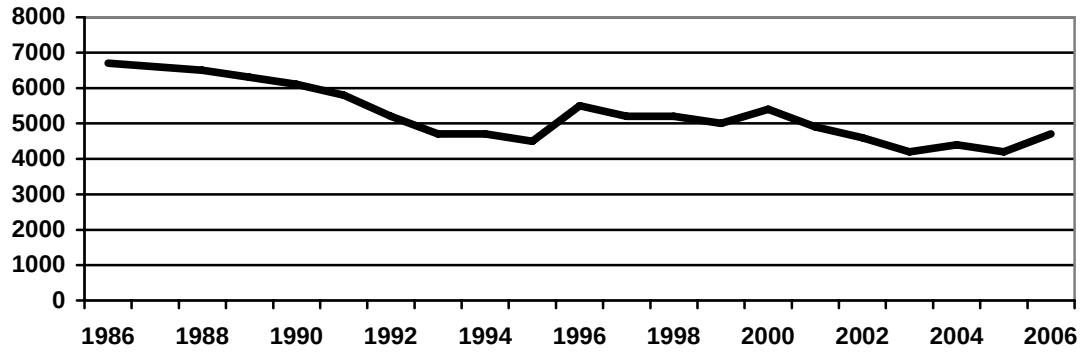
Looking at changes in the number of farm operators per farm operation, one operator farms declined by 13% from 1,295 to 1,130, while farms with two or more operators increased by 4% from 1,160 to 1,210. As a result, farms with two or more operators moved into the majority, from 47% in 2001 to 52% in 2006.

With regard to gender trends by number of operators, the only sub-category to see an increase was female operators in farms with two or more operators. All other categories declined.

4.5 PEI Agricultural Labour Force Trends

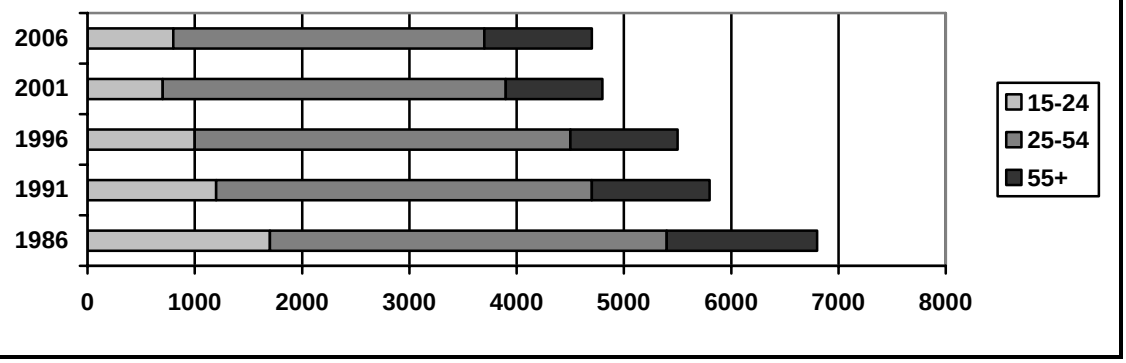
The PEI agricultural labour force dropped 30% from 6,700 to 4,700 employees (including the farm operators) over the past two decades although the decline seems to have ended around 2001 with the numbers of agricultural workers (including farm operators) hovering in the mid-4,000's since that time (see Figure 5).

Figure 5. Average Annual Agricultural Labour Force, 1986-2006



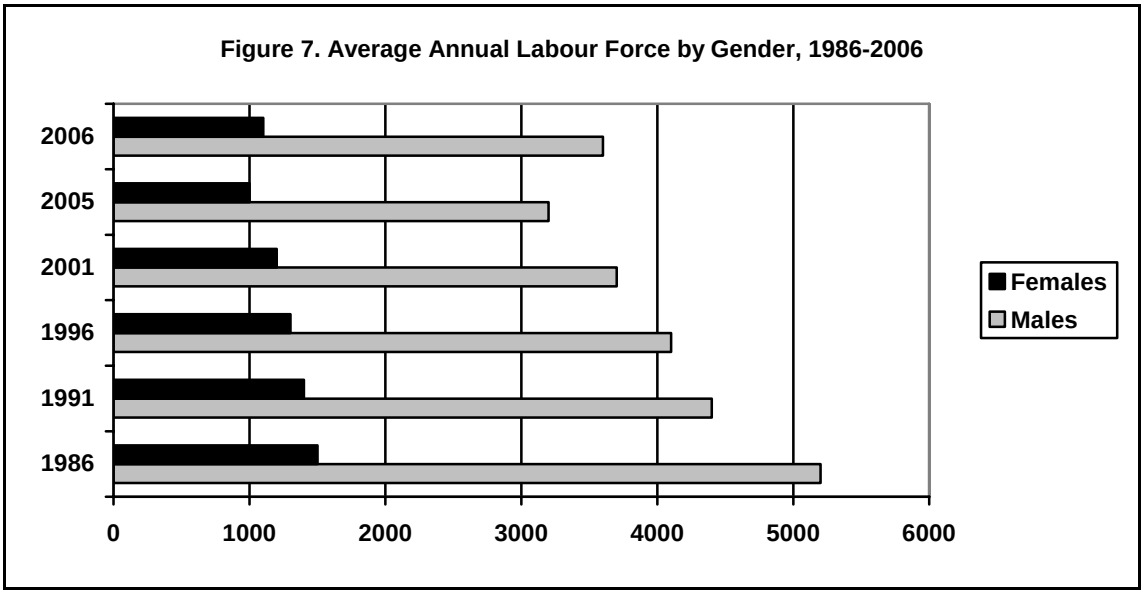
The largest decline occurred among farm workers aged 15-24. From 1986 to 2006, this age group dropped 53%, from 1,700 to 800, falling from one-quarter to one-sixth of the agriculture labour force. The age group 25-54 dropped 22%, from 3,700 to 2,900, but its share increased, going from 54% to 62% of the agriculture labour force. The age group 55-plus dropped 29%, from 1,400 workers to 1,000, very slightly increasing its share of the agriculture labour force from just under 21% to just over 21%. These trends are shown in Figure 6 below.

Figure 6. Average Annual Labour Force by Age Group, 1986-2006



Currently, males account for 77% of the total agriculture labour force, while female workers account for the remaining 23%. In 1986, males accounted for 5,200 workers and 78% of the agricultural labour force, while women accounted for 1,500 workers or 22%. Between 1986 and 2006, males dropped in number somewhat more rapidly than women, falling by 31% to 3,600 in

2006. Women dropped from 1,500 to 1,100 over the same period, down 27%. These trends are shown in Figure 7.



4.6 Farm Supervisor and Specialized Livestock Worker Trends

Farm Supervisors and Specialized Livestock Workers represent a small occupation within agriculture, and their numbers are declining. The overall numbers are down from 130 in 1991 to 105 in 2001. Over 90% of workers in this occupation were male, two-thirds work in full-time jobs, and their average hours per week dropped from 57 to 49 hours. The average age in this occupation increased rapidly with the number under the age of 55 down by 30% since 1991, while the number of those over age 55 doubled. However, the level of educational attainment within this occupation improved over the past decade or more.

4.7 General Farm Worker Trends

There were approximately 2,200 General Farm Workers in 2001. General Farm Workers most commonly worked 14-26 weeks or the full year. Those workers who work for a limited number of weeks tended to work 50 or more hours per week, while full year workers tended to work a 40-hour week. Male General Farm Workers also tended to work a longer season, and more hours per week, than female farm workers. Overall, General Farm Workers tend to be younger than the overall PEI labour force, but the average age has increased. In addition, the levels of formal educational attainment continued to be low, and showed little improvement over the past decade or more.

4.8 Harvesting Labourer Trends

Census data on Harvesting Labourers is likely a large underestimate of the actual size of the occupation. With regard to Harvesting Labourers, this is a small and sharply declining occupation according to the Census. Since 1991, Census data indicates that it decreased almost 50% from 345 to 185 workers. The biggest declines have been younger women workers, this group decreased by 60%, while the number of male workers decreased by 30%. There appeared to be comprised of two distinct groups; younger men and middle aged women (average age of males, 31, females, 46). The decline was concentrated among those working less than six months a year. In addition, educational attainment continued to be low; in 2001, virtually all Harvesting Labourers had less than high school completion.

5. Primary Data

This section provides a profile of respondents for each of the sources of primary data collected in this study.

5.1 Farm Employer Survey Respondents

As noted earlier, 167 farm employers responded to the survey, with a good cross-section of commodity groups represented. Employers were asked to indicate both their primary and secondary commodity. With regard to their main commodity, the largest number of respondents included: potatoes (30%); dairy (28%); beef (11%); and fruit and berry (10%). With regard to their secondary commodity, the largest number included: grains (25%); and beef (14%). Table 1 provides the complete breakdown of the main and secondary commodities represented among farm employer survey respondents.

Table 1: Primary and secondary commodities produced by farm employer survey respondents (PEI, 2007).

Commodity	Main	Secondary
Potatoes	30%	5%
Beef	11%	14%
Swine	7%	2%
Dairy	28%	3%
Other animal	5%	4%
Vegetable/cole crops	2%	2%
Grains	4%	25%
Fruit and berry	10%	2%
Other	2%	8%

The larger main sectors represented among employer respondents were examined to determine the most commonly associated secondary sectors. For respondents whose main sector was potatoes, the secondary sector was most often grains, beef or none (i.e., were exclusively potato producers). For respondents whose main sector was beef, the secondary sector was most often none (i.e., were exclusively beef producers). Conversely, beef was often a secondary sector to potatoes. For respondents whose main sector was dairy, the secondary sector was most often none (i.e., were exclusively dairy producers) with a few respondents indicating grains, potatoes or beef as the secondary sector. Grains were generally a secondary sector to potatoes or occasionally dairy. Fruit and berry tended to be exclusively devoted to that commodity (no secondary sector).

A comparison to 2006 Census farm data revealed that dairy employers were over-represented among survey respondents (28% main sector) compared to Statistics Canada (18%) whereas beef employers were under-represented among survey respondents (11% main sector) compared to Statistics Canada (26%) whereas the other commodity groups were broadly similar between the employer survey and Statistics Canada.

Employers from all three counties were included in the survey sample: 43% of respondents were from Queens County, 41% were from Prince County, while 14% were from Kings County.

Farm employers who completed the survey also represented a broad spectrum in terms of gross farm sales, as shown in Table 2. Potato employer respondents were more likely to have annual gross farm sales in excess of $500,000 than other sectors.[5] Dairy employer respondents were more likely to have annual gross farm sales between $100,000 and $499,999 than other sectors. The combined vegetable and cole crop / fruit and berry sectors were more likely to have gross farm sales less than $250,000 than other sectors.

A comparison to 2006 Census farm data revealed that employers with $250,000 or more gross farm sales were over-represented among survey respondents (58% of those than answered the question) compared to Statistics Canada (25%) whereas respondents with less than $25,000 general farm sales were under-represented among survey respondents (6% of those that answered the question) compared to Statistics Canada (41%) whereas the other categories of gross farm sales were broadly similar between the employer survey and Statistics Canada. Thus, the survey respondents were biased towards larger farms, not surprising since larger farms are more likely to have paid employees and therefore would be more interested in completing a labour market survey focusing on employee recruitment and retention.

Table 2: Annual gross farm sales (2006) of farm employer survey respondents (PEI, 2007).

Gross sales level	% respondents
$500,000 or more	26%
$250,000 to $499,999	23%
$100,000 to $249,999	15%
$50,000 to $99,999	8%
$25,000 to $49,999	7%
Less than $25,000	5%
Refused	14%

Seventy-six percent of employers surveyed had paid employees in 2006. This is higher than Statistics Canada, which indicated that 55% of Island farms had payroll in 2005. Thus, the survey respondents were biased towards farms with employees, not surprising since these farms would be more interested in completing a labour market survey focusing on employee recruitment and retention. Respondents from the potato (92%) and dairy (88%) sectors were more likely to have paid employees than other sectors. Respondents from the beef sector (54%) were less likely to have had paid employees in 2006 than other sectors.

[5] *As noted in the methods section, five commodity groups (main and secondary sectors combined) were examined for differences from the industry as a whole: potato, dairy, beef, grains, and vegetable and cole crop/fruit and berry combined (due to smaller numbers). Other commodity groups could not be analyzed due to smaller sample sizes. Only commodity groups with statistically significant differences are noted in the text.*

Sixty-nine percent of those with paid employees included paid family members. Respondents from the potato sector (85%) were more likely to have family members as paid employees in 2006 compared to other sectors. Twenty-five percent of all employers surveyed indicated that they did not have all the employees they needed. There were no differences by sector examined.

Twenty-four percent of employers indicated that they did not have paid employees in 2006. However, 31% of those would have preferred to have employees if suitable employees were available. There were no differences in the sectors examined. These employers indicated that they could not find suitable employees and/or they could not pay them a suitable wage.

Of the 167 employers surveyed, 127 employers had at least one paid employee in 2006. Tables 3a and 3b present a summary of the workforce[6] employed by those employer respondents by duration of employment and by occupation. In total these 127 employers employed 1,213 workers in 2007, or a mean of 9.6 employees per farm employer with paid employees. Thus, the survey respondents represent a large share of the total agriculture industry in terms of number of employees.

Table 3a: Workforce profile (by duration of employment) of employer survey respondents with one or more paid employees in 2006, n=127 (PEI, 2007).

Type of employee	Mean # employees per farm	Total employees for all 127 respondents combined
Full year employees	1.8	234
Seasonal employees	3.3	418
Temporary employees	4.4	561
Total employees	**9.6**	**1213**

Table 3b: Workforce profile (by occupation) of employer survey respondents with one or more paid employees in 2006, n=127 (PEI, 2007).

Type of employee	Mean # employees per farm	Total employees for all 127 respondents combined
Harvesting Labourers	3.6	459
Farm Supervisors and Specialized Livestock Workers	0.5	65
General Farm Workers	5.4	689
Total employees	**9.6**	**1213**

There were some differences among sectors examined. Employer respondents from the potato sector had more total employees (mean = 13.1) and General Farm Workers (7.3) than other sectors. Employer respondents from the dairy sector had fewer total employees (mean = 3.8),

[6] *Throughout this document 'workforce' refers to those persons employed for farm producers whereas 'labour force' refers to the broader population of persons available for work in the industry regardless of whether they are currently employed.*

fewer temporary employees (mean = 1.5), and fewer General Farm Workers (mean = 2.0) than other sectors. Employer respondents from the combined vegetable and cole crop / fruit and berry sectors had more total employees (mean = 17.9) and more temporary employees (mean = 10.4) than other sectors.

The employer survey data presented here is interesting in light of estimates of the numbers in each occupation presented earlier based on Statistics Canada 2001 Census data which indicated a total of 105 Farm Supervisors and Specialized Livestock Workers, 2,200 General Farm Workers, and 185 Harvesting Labourers (which is known to be underestimated by the Census). The 167 employers surveyed in this study represent only a fraction of all employers in the industry yet they employed 65 Farm Supervisors and Specialized Livestock Workers (according to self report) which would seem to indicate that the number of workers in this occupation may be higher than the 2001 Census. The 459 Harvesting Labourers employed by the small fraction of employers surveyed was greater than the 185 indicated in the 2001 Census. It is likely that the true number of Harvesting Labourers greatly exceeds the 459 captured in this employer survey. One caution is that the same individual worker may be reported by multiple employers surveyed, especially for Harvesting Labourers.

5.2 Farm Employer Focus Groups Participants

There were four focus groups with farm operators; one of these groups included a session with young farmers; a total of twenty-nine (29) farm operators attended these sessions, and commodities represented included: potatoes – ten employers; dairy – five employers; beef – four employers; vegetables/cole crops – four employers; swine – three employers; fruit and berries – two employers; and eggs – one employer.

One of the farm operator focus groups was held in Prince County (O'Leary), one in Kings County (Montague), and two in Queens County; one of the Charlottetown sessions included the young farmers group who were attending the Conference for New Generation Farmers.

5.3 Farm Worker Survey Respondents

A total of 116 farm workers responded to the survey. The type of farms on which respondents most commonly worked (all jobs combined) included potatoes (74%), followed by vegetable and cole/crops (16%), dairy (12%), beef (10%), mixed farming (8%), fruit and berry (6%), other animals (3%), grains (3%), and other commodities (3%). The age distribution of respondents is shown in Table 4. The survey included a broad cross section of ages up to age 65 (those over age 65 were not excluded but none were included in this sample of convenience).

Table 4: Age category of farm worker survey respondents (PEI, 2007).	
Age category	**% respondents**
24 or under	28%
25-34	11%
35-44	22%
45-54	22%
55-64	17%
65 or over	0%

Seventy-seven percent were male and 24% were female. This seems consistent with Census data referred to earlier. Forty-eight percent were single, while 45% were married and 7% were divorced, separated, or widowed. Thirty-five percent had children under age 18 and 6% had children under age 6.

In terms of total personal income, 29% had income less than $15,000 in 2006; 36% had income between $15,000 and $24,999; 20% had income between $25,000 and $34,999; and 15% had income of $35,000 and up. It should be noted, however, that 19% of respondents did not answer this question. In addition, 51% of respondents indicated that they had received EI benefits in 2006.

And finally, with regard to the highest education level completed, 41% indicated that they had less than high school; 31% had completed high school; and 28% had completed post-secondary education. Eleven percent of all respondents (or 40% of those who had completed post-secondary education) had completed post-secondary education specifically in agriculture.

5.4 Farm Worker Focus Groups Participants

Three farm worker focus groups were conducted with a total of 36 workers participating. Twelve of these workers worked full year, 14 were seasonal workers, and 10 were Harvesting Labourers. Commodities represented were as follows: 18 worked on potato farms; 8 worked on beef farms; 8 worked on vegetable/cole crop farms; 4 worked on dairy farms; 6 worked on grain farms; and 1 worked on an organic farm. Note: Some workers may have worked on a farm that produced more that one commodity (e.g., a farm employer who grew potatoes and raised beef cattle).

5.5 Key Informant Interviewees

Key informant interviews were completed with farm employers/operators and industry stakeholders. There were a total of 15 key informants interviewed; these included: 8 farm operators, 2 PEI Department of Agriculture employees, 3 Agriculture Employment Officers (employed through the PEI Agriculture Sector Council), 2 representatives from the Nova Scotia Agricultural College, and one staff person from a beef processing plant.

6. Supply of Labour

When looking at farm labour, there are three distinct occupations (as per National Occupational Classification or NOC): Farm Supervisors and Specialized Livestock Workers, General Farm Workers, and Harvesting Labourers. The NOC descriptions [7] of these occupations are as follows:

Farm Supervisors and Specialized Livestock Workers (NOC 8253)

Farm supervisors supervise the work of General Farm Workers and Harvesting Labourers and perform general farm duties. Specialized livestock workers carry out feeding, health and breeding programs on dairy, beef, sheep, poultry and hog farms and may also supervise General Farm Workers and Harvesting Labourers. Workers in these occupations may be required to have a college certificate or other specialized training in agriculture or livestock husbandry.

Farm supervisors may specialize in dairy, poultry, swine, beef, sheep, fruit, vegetable, mixed, specialty and equine farms, and may work at some or all of the following duties:

- Co-ordinate and supervise the work of General Farm Workers and Harvesting Labourers;
- Supervise breeding programs and harvest operations;
- Develop work schedules and establish procedures;
- Maintain quality control and production records; and
- Perform general farm duties.

Specialized Livestock Workers usually specialize in one type of farm animal, such as beef cattle, dairy cattle or swine, and perform some or all of the following duties:

- Formulate a feeding program;
- Maintain livestock performance records;
- Carry out a pasture or pen breeding program;
- Recognize and treat certain livestock health problems;
- Train horses;
- Perform general farm duties; and
- May supervise General Farm Workers and Harvesting Labourers.

General Farm Workers (NOC 8431)

General Farm Workers are employed on crop, livestock, fruit, vegetable and specialty farms, and carry out tasks including:

- Planting, fertilizing, cultivating, spraying, irrigating and harvesting crops;
- Feeding and tending livestock and poultry;
- Cleaning stables, barns, barnyards and pens;
- Transporting livestock;
- Operating and maintaining farm machinery and equipment;

[7] *See http://www23.hrdc-drhc.gc.ca/2001/e/groups/8.shtml*

- Detecting disease and health problems in crops, livestock and poultry; and
- Preparing produce for market.

Harvesting Labourers (NOC 8611)

The Harvesting Labourer is involved in assisting other farm workers to harvest, sort, and pack crops. The occupation has no training or education requirements. The work is usually outdoors and physically demanding, requiring physical stamina, effective verbal communications skills, and the ability to follow directions and adhere to safety standards and procedures. Harvesting Labourer duties may include the following:

- Picking row and orchard crops;
- Sorting, weighing and packing fruit and vegetables;
- Loading, unloading and transferring crates, supplies and farm produce, livestock and poultry; and
- Cleaning up racks, trays, growing and packaging areas.

6.1 Summary

Census data indicates that the Farm Supervisors and Specialized Livestock Workers occupation is shrinking somewhat. While the supply of farm supervisors was viewed by farm operators as relatively stable, livestock operators indicated it was becoming increasingly difficult to find experienced Specialized Livestock Workers. While there are training programs for new entrants through the Nova Scotia Agricultural College (NSAC), it remains difficult to recruit and/or retain these graduates into on-farm positions.

Census data shows the General Farm Worker pool is shrinking as well; particularly with respect to younger farm workers. Employers viewed this category of workers as being much more fluid and transient than five to seven years ago.

The available Harvesting Labourer pool is also quickly shrinking, and employers with crops that need to be harvested over a short period are feeling increasingly stressed over the lack of short-term farm labour. Many employers describe this labour pool as limited in terms of the available numbers as well as their knowledge and skill level.

Generally, many full year workers (Farm Supervisors or Specialized Livestock Workers and General Farm Workers) indicated in focus groups that they like/enjoy working in agriculture. Many have worked with the same employer for a number of years, and tend to be quite loyal to that employer.

The General Farm Workers tended to have a more ‘mixed sense’ of their future. For some, the seasonal nature of farm work fits with their family/home situation and needs, and as long as there is seasonal work, many see themselves continuing to work in agriculture. However, many others are seeking jobs that are more long-term and provide a higher, and more predictable, level of income.

Most Harvesting Labourers viewed their work in agriculture as a short-term job activity to make a bit of money; very few see harvest work as a 'stepping stone' to a stable job or occupation in agriculture.

The worker survey provided a profile of the nature of work in agriculture in 2006. Many worker survey respondents held multiple jobs: 72% of respondents had one agriculture job; 23% had two jobs, and 4% had three or more agriculture jobs. Thirty-eight percent of worker survey respondents also held a job outside agriculture. The first job in agriculture tended to be longer with 37% of respondents indicating their first job in agriculture in 2006 lasted 25 or more weeks compared to 19% of second jobs in agriculture in 2006. The main reason for leaving each job was shortage of work although 25% of respondents left their first job for another job.

6.2 Employer/Industry Stakeholder Perceptions

Both key informant interviews and focus group sessions with farm employers and industry stakeholders noted a number of issues regarding labour supply.

Farm Supervisors and Specialized Livestock Workers

The current Census data indicates that this occupation is shrinking somewhat. Farm employers see the current supply of these workers as being relatively stable, experienced and skilled. The exception appears to be with Specialized Livestock Workers; those livestock farmers in focus groups noted that it has become increasingly more difficult to find experienced Specialized Livestock Workers. There are simply fewer of these individuals around, and there is no formal training program available on PEI to send a 'promising employee' to develop their knowledge base and skills. As aging workers get closer to retirement, many employers worry about future supply. Many farm employers are currently finding it difficult to recruit Farm Supervisors and Specialized Livestock Workers. While there are training programs for new entrants through the Nova Scotia Agricultural College (NSAC), it remains difficult to recruit and/or retain these graduates into on-farm positions. Many farm employers believe this is due in part to the often 'precarious' state of the industry in terms of being able to offer job stability and a competitive wage and benefit package. The young graduate is attracted to those jobs that are more secure and can pay higher wages and benefits.

> *"A lot of graduates of NSAC do not end up on the production side of the industry ….although many likely started out wanting to do this …. but many have become employed with the agriculture business side of things such as farm finance and banking, farm machinery sales, and so on ….." (Employer key informant)*

General Farm Workers

Census data shows the General Farm Worker pool as shrinking as well; particularly with respect to younger General Farm Workers. Employers (both key informants and focus group participants) describe this category of workers as being much more fluid and transient than five to seven years ago. Younger people and students were seen to be less interested in farm work than in the past, there are not as many out-of-province workers (Newfoundland and Labrador, Cape Breton, Quebec) as there once were, and many others who have any level of

experience/skill (i.e., mechanical/welding, truck driving, handling heavy machinery) are seen to be 'heading West' in greater numbers. Increasingly, employers are faced with having to hire new workers without much farm knowledge and experience, and this increases the oversight and supervisory demands on the farm employer, and impacts overall farm productivity.

> *"…. A farmer used to draw his labour from a rural population, and you could generally expect that the people you were hiring had experienced what working on a farm would be like ….had driven machinery and worked at other 'hands on' jobs ….nowadays this is not the case …. many have never been near a farm and may never have had to do any manual, 'hands on' work ….you often have to train them from 'scratch' …. this is one of the biggest changes…." (Employer key informant)*

> *"…. The big difference between now and years ago is that the labour pool overall has gotten smaller, and the person that was willing to work at 'hands on' work is no longer there …. this group of workers has dried up …. there are more choices for young people, many are leaving the province ….. the younger group are simply not interested in this type of work….." (Employer key informant)*

Harvesting Labourers

The available Harvesting Labourer pool is also quickly shrinking, and employers with crops that need to be harvested over a short period are feeling increasingly stressed over the lack of short-term farm labour. Many employers describe this labour pool as limited in terms of the available numbers, and their knowledge and skill level (many may not have ever been on a farm, or worked at 'hands on' physical work, etc.). Employers tend to see many of the Harvesting Labourers who are available as quite unstable and unpredictable regarding their work ethic and motivation, and in the view of employers many tend to have a number of social and/or addictions issues. In addition, employers felt that many do not have their driver's license, their own car, or access to transportation.

Many employers are moving toward increased mechanization to address their harvest labour needs. In addition, an increasing number of employers, and especially employers seeking short-term Harvesting Labourers, are looking to migrant farm workers as one of the solutions to addressing this growing labour gap. While farm operators would prefer to hire local labour if it was available, they believe that the increased use of 'off shore' labour will become a more prominent labour recruitment strategy in the future.

> *"…The big issue for the farmer during cropping time is security regarding his labour … with the migrant workers he knows that this many workers will be available for so many weeks, and this will get his crop in…" (Employer key informant)*

> *I have used them for the past four years…. the process is getting easier … if I didn't have these workers, I would seriously consider packing it in" (Employer key informant)*

Farm worker focus group participants had mixed feelings about the use of the migrant worker program. In some ways it may be a good strategy for the farmer, but the perception is that it undermines the potential opportunities for local workers. And perhaps it also gives the message to younger workers that the PEI farm community has given up on local labour; in short, 'we don't

need you.' The workers do not see the increased use of migrant labour as a good long-term option for PEI. Some believe that if the industry and farm operators could address the low wage issue, this could begin to turn things around for local workers.

> *"….hiring Mexican workers might be good for the farmer… but it's not good for the Island farm worker … it seems to give the message to the Island worker that 'we have given up on you' … we don't need you…" (Worker focus group participant)*

Note: Throughout this document 'migrant' workers refer to temporary foreign labour who return to their home country at the end of the season. 'Immigrant' workers refer to foreign workers who intend to stay in Canada on a permanent basis and seek Canadian citizenship.

6.3 Worker Perceptions and Intentions

During the focus group sessions, farm workers noted a number of issues related to their work experience and intentions.

Farm Supervisors and Specialized Livestock Workers and General Farm Workers

Focus group participants included a number of Farm Supervisors and Specialized Livestock Workers and a number of General Farm Workers. Much of the focus group discussion was related to the duration of work, regardless of which of these two occupations participants were employed in.

Generally, many full year workers indicated that they like/enjoy working in agriculture; their reasons include: it's outside work, it's 'hands on' work, there is lots of diversity in terms of the jobs/work tasks, and you are often working independently. Many have worked with the same employer for a number of years, and tend to be quite loyal to that employer. Most tend to see themselves continuing to work in farming until their retirement.

Seasonal farm workers tended to have a more 'mixed sense' of their future. For some, the seasonal nature of farm work fits with their family/home situation and needs, and as long as there is seasonal work, many see themselves continuing to work in agriculture. However, many others are seeking jobs that are more long-term and provide a higher, and more predictable, level of income. Many in this situation are often younger and based on family income needs, are not able to continuing working at a low paying seasonal job, with limited opportunity for advancement.

Some participants in these two occupations noted that employers are often 'up against things' financially, and they wonder at times whether or not they will have a job until retirement (farmer could go out of business). Some workers indicated that it 'would be great' if their employer could pay more, provide some level of health benefits, help with some level of pension contributions, etc., however, they believe that many farmers are struggling to just meet their existing costs.

Harvesting Labourers

In terms of Harvesting Labourers, there are fewer people interested in, and prepared to work at, demanding and physical labour for the wages offered. There are many other options available (fast food, coffee shops, retail stores, etc.) that pay equally well, and it is inside work that is less

physically demanding. Most view their work in agriculture as a short-term job activity to make a bit of money; very few see harvest work as a 'stepping stone' to a stable job or occupation in agriculture.

> *"….if you are not able to make a living at farm work …..even if this is what you would most like to do …..why would you work at it other than for summer wages?" (Worker focus group participant)*

6.4 Profile of Jobs and Experience

The farm worker survey provided a profile of the nature of work in agriculture in 2006. Many worker survey respondents held multiple jobs. Forty-two percent of worker survey respondents held one job (in any industry) in 2006, 35% held two jobs, 13% held three jobs, and 10% held four or more jobs. In terms of the number of jobs in agriculture; 72% of respondents had one agriculture job; 23% had two jobs, and 4% had three or more jobs. In addition, 24% of agriculture jobs were on a farm owned by a family member. Thirty-eight percent of worker survey respondents held a job in another industry, outside agriculture.

In terms of the total number of weeks worked (all jobs in all sectors), 22% worked less than 12 weeks; 22% worked between 12 and 24 weeks; 25% worked between 25 and 48 weeks; and 31% worked between 49 and 52 weeks.

The profile of the first two agriculture jobs is shown in Table 5. The first job tended to be longer with 37% of respondents indicating their first job in agriculture in 2006 lasted 25 or more weeks compared to 19% of second jobs in agriculture in 2006. The most common sector for both the first and second jobs was the potato sector. A large majority (83% and 84%, respectively) worked full-time (30 or more hours per week) in the first and second job. Over half (55%) were still working in their first job whereas only 23% were still working in their second job (note that only 32 respondents had a second job in agriculture). The main reason for leaving each job was shortage of work although 25% of respondents left their first job for another job. The median wage for both the first and second jobs was $10.00 to $10.99 (wages were asked in categories only). [Note: Service Canada wage survey results indicated that the average 2006 wage for General Farm Workers was $9.87.[8]]

[8] *Service Canada PEI Wage Survey 2006*

Table 5: Profile of agriculture jobs in 2006 of farm worker survey respondents (PEI, 2007).			
		% respondents	
		First agriculture job in 2006	Second agriculture job in 2006
% of all respondents with job (# of respondents)		100% (n=116)	28% (n=32)
Job duration	Less than 12 weeks	38%	74%
	12 to 24 weeks	23%	6%
	25 to 48 weeks	16%	3%
	49 and 52 weeks	21%	16%
% respondents in most common sectors	Potatoes	55%	59%
	Vegetable and cole crops	13%	13%
	Dairy	10%	6%
% respondents full-time (30+ hours per week)		83%	84%
% respondents still working in that job		55%	23%
% respondents indicating each reason for the job ending	Injury/illness	4%	13%
	Shortage of work	52%	63%
	Left for another job	25%	8%
	Left for school	8%	0%
	Other	12%	17%
Median wage category		$10.00 to $10.99	$10.00 to $10.99

In terms of the farm worker survey results regarding future work intentions, 74% of workers surveyed were working at the time of the survey (May/June 2007); 53% of all workers surveyed were currently employed in agriculture. Of those not employed in agriculture at time of survey, 62% planned to work in Agriculture later in 2007; 21% did not, and 17% were not sure. Overall, 82% of respondents were either currently working in agriculture at the time of the survey or planned to do so in 2007.

Survey respondents were also asked if they planned to be working in agriculture in two years time; 80% indicated that they planned to work in agriculture in two years time. For those 20% who do not plan to be working in agriculture in two years time, reasons varied including: a career change; going back to school; health/aging, and low wages. In addition, 8% planned to retire in next five years (3% already were retired). Of those who considered themselves already retired, most planned to continue working in agriculture; half worked only a few weeks in 2006 and half worked a significant number of weeks in 2006. It is not clear whether these workers were retired from another profession outside agriculture.

In terms of experience working in agriculture prior to 2006,[9] 85% of survey respondents indicated that they had worked in agriculture prior to 2006, while 15% indicated they were new to the agriculture sector in 2006. Twenty-five percent of worker survey respondents worked in

[9] *All worker survey respondents had worked in agriculture in 2006 as that was a screening question to be included in the survey.*

agriculture for less than five years; 11% worked in agriculture between 5 and 9 years; 28% worked in agriculture for 10 to 19 years, and 36% worked in agriculture for 20 or more years.

6.5 Competition for Labour

Work in Other Sectors

Thirty-eight percent of worker survey respondents held a job outside of agriculture in 2006. The most common other industry sectors (North American Industry Classification System or NAICS) were Construction (14%), Administration, Support, Waste and Remediation (14%), Forestry, Fishing and Hunting (11%), Retail Trade (11%), Accommodation and Food Services (9%), and Other Services (9%).

Employers interviewed as key informants and those who participated in the focus groups also indicated that there is strong competition for labour with other sectors of the Island economy. These other sectors include: trucking, construction, aerospace, forestry, and the emerging wind energy industry.

Work in Other Provinces

Ten percent of respondents indicated that they worked outside PEI in 2006; five of the eleven respondents who worked outside PEI worked in agriculture, and six respondents worked in other fields. Furthermore, an additional 16% of all respondents (who had not worked outside PEI in 2006) had seriously considered moving to another province in the past 12 months.

With regard to competition for labour, 51% of farm employer survey respondents indicated that competition with other PEI industries for workers was a minor or major problem in recruiting or retaining employees in 2006; 50% indicated that competition with Alberta or other provinces was a problem; but only 35% indicated competition with other farm employers in PEI was a problem.

The data from the farm worker survey however indicated that leaving for another job was a common reason (25%) for leaving their first agriculture job in 2006, whereas 10% of respondents had worked outside PEI in 2006, and 16% considered doing so in the past 12 months. From this data it would appear that competition with other farm employers is a larger issue. However, it should be noted that the survey did not capture those that worked in other provinces and did not return.

Employment Insurance Impacts

Many employers noted that, in their opinion, government employment programs (summer road crews), and the Employment Insurance (EI) are also big factors in accessing available labour (especially in the rural areas of the province). These employers (key informants, focus group participants) indicated that, in a tight labour market, EI and other income support programs should not be competing 'head to head' with the employer for available labour when paid work is available.

> *"….The Employment Insurance (EI) Program needs to change …. if work is there and pays a reasonable wage …. the worker should have to take this … we need the EI system to be in place to provide income when industry has down time … but with a good*

industry and labour market strategy this down time could be a lot less….." (Employer focus group participant)

Employers acknowledged that EI is critical to maintaining a stable and available labour force for primary sector industries on PEI. They also acknowledge that some improvements have been made to EI regulations around worker eligibility (# of weeks, banking hours, amount of income earned, etc.), but believe that more adjustments are needed. In particular, the current EI regulations around hours of work and earned income need to be further adapted to allow EI claimants to earn more income (at least during the harvest periods) while maintaining an active claim (and not having the full amount of the income earned essentially "taxed back").

"….if you could hire local guys, and work out the barriers/disincentives regarding the EI issue this would be a better long-term option …..the labour is there …..many of the community's best/smartest are not doing anything because they don't want to jeopardize their EI benefits ….." (Employer focus group participant)

Employment Insurance Beneficiaries

A review of 2006 EI beneficiary data revealed there were 441 General Farm Workers and 147 Harvesting Labourers who received EI benefits in 2006 (Service Canada, personal communication). Sixteen percent of General Farm Workers and 12% of Harvesting Labourers received employment earnings while on claim. There were 1,136 EI beneficiaries in other occupations unique to primary industry. However, it is not known what proportion of those beneficiaries were receiving EI benefits at the time that labour was needed in the agriculture industry.

7. Demand for Labour

7.1 Summary

The employer survey revealed that slightly more employers had increased the size of their operation (21%) than had decreased the size of their operation (14%) in the past two years whereas the remainder had not changed or were unsure. More employer survey respondents thought their farm operation would increase in size (27%) than decrease (14%) over the next five years while the remainder predicted no change or were not sure. These estimates should be viewed with some caution as employer respondents were making a single forced choice judgment on a complex issue. Nevertheless, it gives a sense that overall demand is likely to stay the same or increase slightly.

There was considerable variance in whether this would lead to an increase or decrease in demand or need for each type of worker over the next two years. Slightly more employers predicted the need for more full year, seasonal and temporary workers than predicted the need for less of those types of workers. This equates to a predicted slight increase in demand for those types of workers. Conversely, slightly more employers predicted the need for less Farm Supervisors and Specialized Livestock Workers over the next two years than predicted the need for more Farm Supervisors and Specialized Livestock Workers. This equates to a predicted slight decrease in demand for Farm Supervisors and Specialized Livestock Workers although it is important to note that 50% of the respondents were not sure, indicating there may be more variability in demand for this occupation.

The employer survey responses to this question appear to be different from the overall declining trend in the agriculture labour force over the past 20 years denoted by available Statistics Canada data although it is interesting to note that the farm labour force (including farm operators) has been relatively static since 2001 (see Section 4).

7.2 Change in Farm Operation in Past Two Years

Farm employers were asked to indicate in the survey whether or not the size of their operation decreased or increased over the past two years, and whether or not they expected it to increase over the next two years. Table 6 shows the change in the size of the farm operation among employer survey respondents. In total, 21% had increased in size, 64% stayed the same, and 14% had decreased. There were no differences by sectors examined.[10]

[10] *As noted in the methods section, five commodity groups (main and secondary sectors combined) were examined for differences from the industry as a whole: potato, dairy, beef, grains, and vegetable and cole crop/fruit and berry combined (due to smaller numbers). Other commodity groups could not be analyzed due to smaller sample sizes. Only commodity groups with statistically significant differences are noted in the text.*

Table 6: Change in size of farm operation in past two years of employer survey respondents (PEI, 2007).	
Change in size of operation	**% respondents**
Increased by > 25%	5%
Increased 1-25%	16%
Stayed the same	64%
Decreased 1-25%	8%
Decreased by > 25%	6%
Not sure	1%

7.3 Predicted Change in Farm Operation in Next Five Years

Table 7 shows the predicted change in the size of the farm operation among employer survey respondents. In total, 27% predicted they would increase in size, 52% thought they would stay the same size, and 14% predicted they would decrease in size. Employer respondents in the combined vegetable and cole crop / fruit and berry sectors were more likely to indicate the size of their operations would increase in the next five years (59% expected an increase). Employer respondents in the grains sector were less likely to indicate the size of their operations would increase in the next five years (only 13% expected an increase). These estimates should be viewed with some caution as employer respondents were making a single forced choice judgment on a complex issue. Nevertheless, it gives a sense that overall demand is likely to stay the same or increase slightly.

Table 7: Predicted change in size of farm operation in next two years of employer survey respondents (PEI, 2007).	
Change in size of operation	**% respondents**
Increased by > 25%	5%
Increased 1-25%	22%
Stayed the same	52%
Decreased 1-25%	6%
Decreased by > 25%	8%
Not sure	6%

The main reasons given for the predicted increases included: buying and/or cropping more acreage; farm crop is maturing (e.g., new blueberry fields ready to harvest); and needing to remain competitive/improving profit margin. The main reasons given for the predicted decreases included: decreasing/poor profit margins; age/planning to retire; poor markets for product; long hours/hard work; and no one to take over the farm operation.

7.4 Predicted Change in Demand in Next Two Years

Employers were also asked whether this predicted change in operation size would result in an increase or decrease in the demand for farm labour (caution should be exercised as it cannot be determined the extent to which respondents are representative of the full population of farm employers in PEI). According to their responses, there was considerable variance in whether this

would lead to an increase or decrease in demand or need for each type of worker over the next two years (see Table 8).

- Slightly more employers predicted the need for more full year, seasonal and temporary workers than predicted the need for less of those types of workers. This equates to a predicted slight increase in demand for those types of workers.
- Conversely, slightly more employers predicted the need for less Farm Supervisors and Specialized Livestock Workers over the next two years than predicted the need for more Farm Supervisors and Specialized Livestock Workers. This equates to a predicted slight decrease in demand for Farm Supervisors and Specialized Livestock Workers although it is important to note that 50% of the respondents were not sure, indicating there may be more variability in demand for this occupation. One possible reason (author's speculation) for the latter is consolidation of farms and increasing farm size.

In any case, the employer survey responses to this question appears to be different from the overall declining trend in the agriculture labour force over the past 20 years denoted by available Statistics Canada data although it is interesting to note that the farm labour force (including farm operators) has been relatively static since 2001 (see Section 4).

Table 8: Predicted current and future demand for labour in next five years by employer survey respondents (PEI, 2007).

Change in need by type of labour	More	Less	Same	Not sure
Full year employees	27%	21%	30%	21%
Seasonal employees	31%	21%	29%	19%
Temporary employees	29%	23%	30%	19%
Farm Supervisors and Specialized Livestock Workers	13%	16%	21%	50%

While it did not seem to come up in any prominent way in the data findings, when exploring emerging trends the research team did ask key informants and farm employer focus group participants about organic farming as a trend and its potential impact on future farm labour. Respondents acknowledged that organic farming would definitely be more 'labour intensive,' but many were not able to predict or comment on just how big this might get on PEI, or how quickly it might emerge as a larger trend. One key informant did note that organic farms on PEI have access to a labour pool referral program known as Willing Workers on Organic Farms (WWOOF). This key informant believed that 5 to 6 organic farms on PEI are using labour from this program at present. The program is membership-based, and there is a website through which the farm employer and prospective worker can get 'matched up.'

8. Recruitment and Retention

While individual farm employers and particular commodities groups may pursue certain avenues or practices, there is currently no industry-wide recruitment or retention strategy within the agriculture industry on PEI.

8.1 Summary

Various aspects of recruitment and retention of workers were examined in this study.

The main recruitment methods were word of mouth and family and friends followed distantly by other methods such as government job line, an Agriculture Employment Officer, newspaper ads, and other methods.

In terms of difficulties recruiting to various types of work positions, 26% of employer survey respondents indicated that it was very or somewhat difficult to recruit full year employees in 2006; 46% found it difficult to recruit seasonal workers; 52% had difficulty recruiting temporary workers/Harvesting Labourers; and 16% of respondents indicated that they have difficulty recruiting workers with specialized training and skills (Farm Supervisors and Specialized Livestock Workers). In total, 76% of employers indicated difficulties recruiting at least one duration or occupation of worker.

Employers who responded to the survey noted a variety of issues and barriers regarding worker recruitment. The largest issues were seen to be competition with other PEI industries, competition with other provinces and Alberta in particular, and the image of the industry (a lot of negative media attention on fiscal problems in the industry, environmental issues, pesticides, etc.).

Farm operators who were key informants and/or who participated in the focus groups also discussed the issues of recruiting and retaining farm workers. They described labour as the biggest investment for most farmers within their farm operations. Farm operators noted a number of factors: the labour pool that was willing to work at ‘hands on’ work is no longer there; the aging of the labour force; the out-migration of the younger skilled worker; and the apparent lack of interest of the younger generation. Several key informant and focus group participants also noted the prevailing negative image of agriculture as a major barrier to recruitment of new workers into the farm labour pool. Farm worker focus group participants also commented on the factors that would limit the appeal of farm work with younger people. Farm worker focus group participants believed that younger people should be exposed to, and encouraged to consider looking at agriculture as a possible career at a much earlier age. Some employers indicated that they are becoming more aware of, and open to exploring, the potential of individuals and/or groups who traditionally have been underrepresented in the labour force; i.e., persons with disabilities, newcomers/immigrants, and older/retired persons. The nature and role of women working in agriculture was also raised with key informants and focus group participants.

In terms of retaining employees, 14% of all employers noted that they saw retaining full year workers as either being very or somewhat difficult; 25% had difficulty retaining seasonal

employees; 31% had difficulty retaining their temporary workers; and 7% had difficulty retaining their Farm Supervisors or Specialized Livestock Workers. In total, 43% of employers indicated difficulties retaining at least one duration or occupation of worker.

Twenty-five percent of employers surveyed experienced employee turnover during 2006. Of those who experienced employee turnover, 27% of those experienced a great deal or some turnover with full year employees; 50% experienced turnover with seasonal employees; 56% experienced turnover with temporary employees; and 5% experienced turnover with Farm Supervisors and Specialized Livestock Workers.

Employers who were key informants and who participated in the focus group sessions (who tended to be the more established employers) indicated that, in terms of employee retention, they try to provide things such as:

- Pay increases when possible.
- Reasonable and flexible work hours, including breaks.
- Appropriate equipment and clothing, access to lunchroom, etc.
- Appropriate training regarding job and work tasks and safety.
- Some level of recognition/appreciation; e.g., end of harvest barbeque or annual bonus.
- Inclusion in planning and decision-making; e.g., new equipment purchase.
- Some level of benefits.

Employers who were key informants and/or focus group participants noted that many farmers are still ‘coming to grips’ with the new realities of the labour market. While farm operators have confirmed labour recruitment and retention as a major farm management issue that is demanding more of their time and resources, new human resource practices are emerging.

Farm workers who completed the survey were asked to indicate which factors would support their remaining in their jobs working in agriculture. The top ranked factors were farm located close to where you live, how you are treated by your employer or supervisor, and being able to work outside. Farm worker survey respondents also noted the factors that may cause them to leave agriculture. The top ranked factors were wage level you get, the number of regulations in the agriculture industry, benefits (e.g., health, dental, vacation), and being able to get work in Alberta or other provinces.

8.2 Recruitment Methods

Employers who were key informants and those in the focus groups indicated that the most frequently used (and the one that was most comfortable for them) method of recruitment was ‘word of mouth.’ The next most frequently used method was to advertise in the local newspapers, or through industry newsletters, or journals. While a number of employers have used the government (Service Canada) job bank, many do not see this as being effective (perception is that the person only inquires about/replies to job advertisements on the job bank to ensure that his/her EI continues). Depending on the nature of the job vacancy (specialized

skill and/or experience), some employers may also advertise through the Nova Scotia Agricultural College. In recent years, more farm employers are exploring the use of migrant or immigrant labour, and have worked with/through the respective federal government departments (Service Canada, Citizenship and Immigration Canada) to pursue this.

This pattern of recruiting was further confirmed in the employer survey; 44% of all employers (53% of those with paid employees) tried to recruit employees in 2006. Employer respondents in the potato sector (67%) and combined vegetable and cole crop/fruit and berry sectors (81%) were more likely to have tried to recruit employees whereas respondents in the dairy sector (30%) were less likely. Eighty-nine percent used word of mouth; 69% used family and friends; 33% used the government job line; 30% used an Agriculture Employment Officer; 25% used newspaper ads; 11% used the Nova Scotia Agricultural College, 10% used high school students, and 10% used the Seasonal Agricultural Worker Program (which assists to bring in temporary, foreign migrant labour). The only difference by sector was that the combined vegetable and cole crop/fruit and berry sectors were more likely to have used the Seasonal Agricultural Worker Program.[11]

8.3 Recruitment Issues

In terms of recruiting to various types of work positions, 26% of employer survey respondents indicated that it was very or somewhat difficult to recruit full year employees in 2006; 46% found it difficult to recruit seasonal workers; 52% had difficulty recruiting temporary workers; and 16% of respondents indicated that they have difficulty recruiting workers with specialized training and skills (Farm Supervisors and Specialized Livestock Workers). There were no differences by sector.[12]

In total, 76% of employers indicated difficulties recruiting at least one duration or occupation of worker. Difficulties recruiting any type of worker was examined by gross sales levels, recruitment methods used, benefits offered, steps taken to address recruitment/retention issues, and employer perceptions of the wages they offered to determine if any subgroup differences existed.[13] Only two differences were noted. Employers using word of mouth and family and friends as recruitment methods were more likely to have experienced recruitment difficulties. The direction of the relationship cannot be determined. For example, those using word of mouth methods may have encountered more difficulties recruiting or difficulties recruiting may have caused employers to respond by using word of mouth as a recruitment method. The qualitative data indicates the former is more likely to be the case – relying on informal recruitment methods is not sufficient in the existing labour market.

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[11] It should be noted that the sample size was more limited for this analysis as only employers who had tried to recruit paid employees were asked this question.

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Employers who responded to the survey noted a variety of issues and barriers regarding worker recruitment as listed in Table 11. The top three issues noted (which were statistically tied) were as follows. Fifty-one percent noted competition with other PEI industries; 50% indicated competition with other provinces and Alberta in particular and 42% noted the image of the industry. A variety of issues were tied in the second most important grouping, beginning with limited possibility for advancement. Table 9 includes the entire list of issues identified by employers. These are grouped and ranked according to two standard errors of each proportion. Problems with the same rank number cannot be distinguished statistically.

Table 9: Problems recruiting/retaining workers (% of employer survey respondents indicating it was a minor or major problem) (PEI, 2007).

Recruiting/retention problem	% respondents
1. Competition with other industries in PEI	51%
1. Competition with Alberta/other provinces	50%
1. Image of the industry	42%
2. Limited possibility for advancement	41%
2. Wage levels	41%
2. Not enough weeks of work	39%
2. Difficult nature of work	38%
2. Available benefits	37%
2. EI regulations	36%
2. Limited training	35%
2. Competition with other farms on PEI	35%
2. Changes in other regulations – other than EI	34%
3. Long hours of work	31%
3. Lack of transportation	24%
3. Not having right training or requirements	23%
4. Existing employees retiring	17%
4. Lack of accommodations	16%
4. Lack of child care	15%
4. Geographic location	15%
5. Existing employees going on disability	8%

There were some differences in perceived problems recruiting and retaining workers by industry sector. Employer respondents in the potato sector were more likely (47%) to indicate competition with other farms on PEI as a problem compared to other sectors (26%). Similarly, employer respondents in the potato sector were more likely (66%) to indicate competition with employers in Alberta or other provinces as a problem compared to other sectors (41%). Finally, employer respondents in the potato sector were more likely (54%) to indicate EI regulations as a problem compared to other sectors (25%). Employer respondents in the dairy sector were less likely (22%) to indicate image of the industry as a problem compared to other sectors (51%). Employer respondents in the dairy sector were less likely (18%) to indicate EI regulations as a problem compared to other sectors (48%). Employer respondents in the combined vegetable and cole

crop/fruit and berry sectors were more likely (71%) to indicate difficult nature of work as a problem compared to other sectors (33%). As well, employer respondents in the combined vegetable and cole crop/fruit and berry sectors were more likely (50%) to indicate lack of transportation as a problem compared to other sectors (19%).

Farm operators who were key informants and/or who participated in the focus groups also discussed the issues of recruiting and retaining farm workers. They described labour as the biggest investment for most farmers within their farm operations. For the farm operator, the critical issue is 'can I get my crop in, and get it out at harvest time.' If the labour supply is always a question, this will impact on the long-term productivity of the operation and the farm business is not likely to grow.

> *"Labour is the number one issue; I am recruiting for someone almost 90% of the time." (Employer key informant)*

> *"One of the first questions I ask myself when considering whether or not to grow a new crop …. can I harvest it ….can I get it out of the ground?" (Employer key informant)*

In terms of some of the overriding issues impacting on the availability of farm labour and subsequent recruitment challenges, farm operators noted a number of factors: the labour pool that was willing to work at 'hands on' work is no longer there; the aging of the labour force; the out-migration of the younger skilled worker; and the apparent lack of interest of the younger generation. In particular, most farm employers who were key informants and/or focus group participants expressed a sense of puzzlement, disappointment and resignation regarding the apparent lack of interest, and obvious lack of 'hands on' skills, of the younger generation.

> *"…..many have never been near a farm and come from a more urban background ….they may never have had to do any manual, 'hands on' work ….you often have to train them from 'scratch' …there is a total lack of farm experience and 'hands on' skills (Employer key informant)*

> *"….the young generation of workers have this sense of 'entitlement' about the workplace and what they can do, how much they should be paid, and so on ….there is a disconnect as to where their 'heads are at,' and the realities of the workplace, and the issues and challenges that employers are dealing with…." (Employer key informant)*

Several key informant and focus group participants also noted the prevailing negative image of agriculture as a major barrier to recruitment of new workers into the farm labour pool. They believe that the images and messages regarding agriculture as an industry that get portrayed to the public (which are often media driven) are often unfair, and it is never 'balanced' with all the positive features and assets the industry has going for it. They believe this overriding public image is having an impact on how young people would view a career in agriculture.

> *"The image of the industry is an issue ….. we have difficulty attracting younger people to agriculture …. the industry gets so much negative press …. we get to the point that sometimes farm families discourage their own kids from agriculture work and/or studies ….many young people are discouraged by the media, their parents, or their teachers because it is perceived to have a negative future…" (Employer focus group participant)*

"….young people are going to focus their career on a growing/expanding industry rather than one that is consolidating…." (Employer key informant)

Farm worker focus group participants also commented on the factors that would limit the appeal of farm work with younger people; they indicated several factors such as: low wages and few benefits; often the work is not full-time; safety and health concerns; some jobs/tasks are repetitive, boring, and not challenging; and for younger families, there is very little access to quality child care at irregular times of the day and/or week.

In addition, there is 'negative peer pressure.' For younger people the idea of working on a farm often elicits a negative perception from others; your friends will say to you - 'you're working at farming? Why would you do that?'

"your friends really look at you when you say you work on a farm …makes you feel that you are not working at 'much of a job'…. even though you might like it…." (Worker focus group participant)

Farm worker focus group participants believe that younger people should be exposed to, and encouraged to consider looking at agriculture as a possible career at a much earlier age (as early as junior high, if not earlier). Many believe that kids are not encouraged to think about 'hands on' careers at school, and schools and teachers have a bias toward university/college training. The perception is that parents, schools, and the adult community generally, are giving out the message that 'hands on' work is 'second class' work (i.e., work you do when you can't do anything else). Almost everyone in the worker focus groups indicated that when they attended school, they heard virtually nothing about working in agriculture as a possible job or occupation.

Some employers indicated that they are becoming more aware of, and open to exploring, the potential of individuals and/or groups who traditionally have been underrepresented in the labour force such as persons with disabilities, newcomers/immigrants, and older/retired persons. One focus group participant noted that he had recently employed a person with a disability, and because of the nature of the work tasks (specific, 'hands on,' and repetitive), this individual turned out to be the 'perfect fit.'

"I never would have even considered approaching a person with a disability, but someone suggested I give it a try …he worked out perfectly." (Employer focus group participant)

The nature and role of women working in agriculture was also raised with key informants and focus group participants. Employers noted that women have been working in agriculture forever, but they acknowledged that, as employers, they may not be recognizing and/or utilizing the skills and abilities of women to their full potential. Employers acknowledged that, generally speaking, even though women are excellent farm workers they (employers) don't make any special effort to recruit women workers.

"If a women were to look at most job ads in the newspaper looking for farm workers …. they would assume the jobs were only for men." (Employer focus group participant)

This view was confirmed by the women who participated in the farm worker focus groups. These women indicated that, while it is slowly changing, they believe that there is still a bias against giving women as much responsibility as male workers. Their view is that most farm employers do not see women as a prime recruitment target, and have not begun to address the barriers, and needed incentives, that may attract and retain more women into the sector.

8.4 Employee Suitability

Employer survey respondents (those with paid employees in 2006) noted a number of issues with regard to employee/worker suitability:

- Not qualified to drive large trucks or farm tractors (38% of employer respondents) (especially in the potato sector)
- Poor attitude (25%)
- Not having the right skills (25%)
- Work ethic (25%)
- Lack of training or needing retraining (23%)
- No driver's license (18%)
- Not having specific requirements such as pesticide certification (10%)
- Addictions or other issues (10%) (more often noted in the potato sector)
- Numeracy or literacy issues (6%)

8.5 Employee Retention

Retention Difficulties

In terms of retaining employees, 14% of all employers noted that they saw retaining full year workers as either being very or somewhat difficult; 25% had difficulty retaining seasonal employees; 31% had difficulty retaining their temporary or Harvesting Labourers; and 7% had difficulty retaining their Farm Supervisors or Specialized Livestock Workers. Employer respondents in the dairy sector were more likely to indicate difficulties in retaining Farm Supervisors and Specialized Livestock Workers than other sectors. No other differences were noted among sectors examined.[14]

In total, 43% of employers indicated difficulty retaining at least one duration or occupation of worker. Difficulty retaining <u>any</u> type of worker was examined by gross sales levels, recruitment methods used, benefits offered, and steps taken to address recruitment/retention issues, and employer perceptions of the wages they offered to determine if any subgroup differences existed. Only two differences were noted. Employers who purchased or upgraded machinery to make work easier and employers who increased wages were more likely to have experienced

[14] *Sample sizes were limited for these comparisons.*

difficulties with retention of workers. The direction of the relationship cannot be determined. For example, those increasing wages may have encountered more difficulties with retention or retention difficulties may have caused employers to increase wages.

Retention Incentives

Employers who were key informants and who participated in the focus group sessions (who tended to be those with more experience in the industry) indicated that, in terms of employee retention, they try to provide things such as:

- Pay increases when possible.
- Reasonable and flexible work hours, including breaks.
- Appropriate equipment and clothing, access to lunchroom, etc.
- Appropriate training regarding job and work tasks and safety.
- Some level of recognition/appreciation; e.g., end of harvest barbeque or annual bonus.
- Inclusion in planning and decision-making; e.g., new equipment purchase.
- Some level of benefits.

Employers who completed the survey were asked if they provide employee benefits to their employees. Of those respondents who had employees, 33% provided some level of paid vacation and sick leave; 21% provided some level of life, accident or injury insurance; 19% provided health benefits; 15% provided dental benefits; and 9% provided a pension or RRSP plan. There were no differences among the sectors examined.

Employers were also asked to list other steps (other than provision of benefits) taken to retain their employees. Increased wages, purchased machinery, and provided clothing, gloves or footwear were the most common steps taken. See Table 10 for the list of the steps taken most frequently by employers. These are grouped and ranked according to two standard errors of each proportion. Problems with the same rank number cannot be distinguished statistically.

The only differences among sectors examined were that employer respondents in the potato sector were more likely (59%) to have offered training or more training compared to other sectors (31%) and that employer respondents in the grains sectors were more likely (46%) to have increased the length of employment compared to other sectors (21%).

Table 10: Steps taken by employer survey respondents to retain farm workers (PEI, 2007)	
Retention Step Taken	**% respondents**
1. Increased wages	66%
1. Purchased or upgraded machinery to make work easier	66%
1. Provided clothing, gloves or footwear for work	65%
2. Offered meals	48%
3. Offered more flexible hours of work	50%
4. Offered training or more training	40%
5. Offered transportation to job site	29%
5. Increased the length of employment	26%
5. Shortened hours of work	23%
5. Increased opportunity for advancement	23%
6. Shared or coordinated employees with other farm employers	19%
6. Offered benefits or increased benefits	15%
6. Helped employees better understand EI rules	15%
6. Hired more employees than needed	14%
6. Offered accommodations	13%
7. Offered child care on site	4%
7. Offered incentives to delay retirement of employees	3%
7. Hired temporary foreign workers (i.e., migrant workers)	3%

Employers who were key informants and/or focus group participants noted that many farmers are still 'coming to grips' with the new realities of the labour market.

> *"Many farm operators do not yet realize how much they are in competition with other sectors for labour ….could they pay more? …probably yes ….but there is a strong tendency within the industry to pay only so much for farm labour." (Employer key informant)*

> *"Employers need to be very flexible regarding type of job, hours worked, wages, and so on …. many people want jobs that fit better with other parts of their life (family time) …..employers in today's world need to be flexible or they simply won't be able to find workers…." (Employer key Informant)*

While farm operators have confirmed labour recruitment and retention as a major farm management issue that is demanding more of their time and resources, new human resource practices are emerging. Employers who were key informants and focus group participants noted a number of emerging human resource practices that they have adopted that have proven to be successful measures in their ongoing efforts to recruit and retain workers. Some of these include:

- To the degree possible, develop and practice a positive work/life balance philosophy; e.g., regular work hours, flexibility around hours and work shifts, etc.
- Offer a competitive wage and benefit package; and be aware of what other sectors are offering.

- Create more full-time (and/or longer term) employment for workers, thus allowing the farm operation to retain the more critical, skilled and experienced staff.
- Explore the option of 'cross training' farm workers so that they can move between various types of farm jobs and operations at different times of the year.
- Include workers, particularly the Farm Supervisors and Specialized Livestock Workers, in the planning, consultation, and decision-making part of the business; this builds interest and commitment to the farmer and the farm operation. E.g., an equipment operator should have input into a major new machine purchase.
- Build a team approach; provide opportunities for the farmer and key farm workers to come together and understand the new information, technology and advances emerging in a particular commodity.
- Invest more time and effort in working with and communicating with employees; look for little (and perhaps less costly) ways to reward good workers; things like subsidizing gas/transportation costs, provide some perks (coffee, occasional lunches), Christmas bonus, annual company 'get together,' or end of harvest barbeque.

Employers who were key informants and focus group participants emphasized that providing a competitive wage/benefit package and maintaining good human resource practices can be difficult for many farmers because of the day-to-day demands of farm management, and of the bottom line.

> *"The farm operator needs to be able to balance this (competitive wage and progressive human resource practices) with the farm operation's ability to get a reasonable return for the product….it is not always easy to do this …. it is a huge managerial task…." (Employer key informant)*

Factors Supporting Staying in Agriculture

Farm workers who completed the survey were asked to indicate which factors would support them to stay working in agriculture. [Note: Respondents were asked to rate a list of factors as to whether it would lead them to stay in or leave agriculture, or made no difference.] Table 11 lists the top-rated supporting factors, and the frequency in which each was mentioned. The number one ranked factors (statistically tied for number 1 rank) were farm located close to where you live, how you are treated by your employer or supervisor, and being able to work outside. Note: These are grouped and ranked according to two standard errors of each proportion; factors with the same rank number cannot be distinguished statistically.

Table 11: Top ranked factors supporting staying in agriculture chosen by Farm Worker Survey Respondents (PEI, 2007).	
Factor	**% respondents**
1. Farm being located close to where you live	73%
1. How you are treated by your employer or supervisor	72%
1. Being able to 'work outside'	68%
2. Possibility for advancement (i.e., promotion)	53%
2. Flexible hours of work	52%
2. Transportation to work site provided	50%
2. Meals provided	49%
2. Future training opportunities in agriculture	47%
2. Wage level you get	46%
2. Number of weeks of work you get	46%

Farm worker focus group participants also noted many of the factors identified in the survey, including: it is outside work and one gets lots of 'fresh air;' there are a lot of different jobs and 'things to do;' and you can learn many new and different skills (e.g., working with machinery, working with animals, growing crops, etc.). Workers see new farm technology as a big change over the last 10 to 15 years; it has made a lot of the hard work easier, but a consequence is that fewer farm workers are needed. New technology and mechanization has been an important change for women workers. For example, with grading and bagging of produce the new technology means that there is less handling of heavy bags, etc.

The gender issue was explored with the worker focus group participants given that almost one half of the focus group participants were women. Some participants noted that, in their opinion, certain work tasks were more suited to men or women; e.g., men gravitate toward handling/driving machinery type of work, and non-repetitive tasks; while women are good at more repetitive tasks such as grading, etc. However, several women indicated they felt that they could do some of the machine-related work, but there is often an attitude issue at work. The perception was that some male farm employers and other male workers believe that women either cannot or should not work at these jobs, and hence will not take the time to train and support women to move into these non-traditional jobs. The women participants believed that this is starting to change, but change is slow. They felt that there is a need to place a focus on training and preparing women to assume farm labour jobs that have been traditionally male focused; e.g., working with machinery and truck driving.

Factors Which May Cause Worker to Leaving Agriculture

Farm worker survey respondents also noted the factors that may cause them to leave agriculture. The top ranked factors are reflected in Table 12. The number one ranked factors (statistically tied for number 1 rank) were wage level you get, the number of regulations in the agriculture industry, benefits (e.g., health, dental, vacation), and being able to get work in Alberta or other provinces. Note: These are grouped and ranked according to two standard errors of each proportion; factors with the same rank number cannot be distinguished statistically.

Table 12: Top ranked factors which may cause worker to leave agriculture chosen by farm worker survey respondents (PEI, 2007).

Factor	% respondents
1. Wage level you get	23%
1. The number of regulations in the agriculture industry	22%
1. Benefits (e.g., health, dental, vacation)	20%
1. Being able to get work in Alberta or other provinces	16%
2. EI rules	15%
2. Being able to get work in other industries on PEI	15%
2. Long hours of work	15%
2. Number of weeks of work you get	14%
2. Child care available at the hours you need it	12%

With regard to the transportation issue, the farm workers surveyed were asked about having a driver's license. Ninety-four percent had a valid PEI license and 95% indicated they had access to a vehicle to travel to work.

Worker Turnover From 2005 to 2006

Table 13a shows that the proportion of workers who were new to the farm operation in 2006 varied by duration of employment with the highest proportion of new workers in 2006 (and hence highest annual turnover from 2005 to 2006) reported for temporary workers (up to 12 weeks) followed by seasonal workers (13 to 48 weeks).

Table 13a: Proportion of employees new to operation in 2006 by length of employment according to employer survey respondents with one or more paid employees, n=127 (PEI, 2007).	
Length of employment	**% new to operation in 2006 (i.e., % lost for all reasons from 2005 to 2006 which equates to an estimate of annual turnover)**
Full year employees (49-52 weeks)	7%
Seasonal employees (13-48 weeks)	23%
Temporary employees (1-12 weeks)	42%
All employees [15]	**29%**

There were few differences by sector. The combined vegetable and cole crop/fruit and berry respondents had the highest proportion of new temporary workers in 2006 (50%) and total new workers in 2006 (52%) compared to other sectors (i.e., had higher annual turnover).

Table 13b shows that the proportion of workers who were new to their operation in 2006 varied by occupation with the highest proportion of new workers (and hence highest annual turnover) reported for Harvesting Labourers followed by General Farm Workers.

Table 13b: Proportion of employees new to operation in 2006 by occupation according to employer survey respondents with one or more paid employees, n=127 (PEI, 2007).	
Occupation	**% new to operation in 2006 (i.e., % lost for all reasons from 2005 to 2006 which equates to an estimate of annual turnover)**
Harvesting Labourers [16]	29%
Farm supervisors and Specialized Livestock Workers	3%
General Farm Workers	24%
All employees	**29%**

There were few differences by sector. The combined vegetable and cole crop/fruit and berry respondents had the highest proportion of total new workers in 2006 (52%) compared to other sectors (i.e., had higher annual turnover).

Worker Turnover During 2006

Twenty-five percent of employers surveyed experienced employee turnover during 2006. There were no differences among sectors examined. Of those who experienced employee turnover, 27% of those experienced a great deal or some turnover with full year employees; 50%

[15] *The proportion for all employees for Tables 13 a&b and 14 a&b is a weighted average not a simple average since these subgroups have different sample sizes and hence contribute differently to the overall average.*

[16] *Harvesting Labourers were estimated as temporary employees for employers whose main commodity was vegetable and cole crops, grains, potatoes, or fruit and berry.*

experienced turnover with seasonal employees; 56% experienced turnover with temporary employees; and 5% experienced turnover with Farm Supervisors and Specialized Livestock Workers. Reasons provided by employers for this turnover included: in 90% of the cases the worker quit; in 8% of the cases the worker left because of illness; and in 3% percent of the cases the worker was 'fired.' [17] There were no differences in any of these measures by sectors examined, although the sample size was limited for the subset of employer respondents who experienced employee turnover.

Anticipated Worker Retirements

Table 14a shows that the estimated proportion of their existing workers that employers expected to retire in the next five years was fairly steady at between 10% and 12% by duration of employment. There were few differences by sector. Beef sector respondents were more likely to indicate their temporary employees (29%) would retire in the next five years. Dairy sector respondents were less likely (0%) to expect their seasonal employees would retire in the next five years.

Table 14a: Predicted employee retirement by length of employment according to employer survey respondents with one or more paid employees in 2006, n=127 (PEI, 2007).	
Type of employee	**% retiring in next five years (employers' estimates)**
Full year employees (49-52 weeks)	11%
Seasonal employees (13-48 weeks)	10%
Temporary employees (1-12 weeks)	12%
All employees	**11%**

Table 14b shows that the estimated proportion of their existing workers that employers expected to retire in the next five years was also fairly steady at between 8% and 13% by occupation. There were no differences by sector.

Table 14b: Predicted employee retirement by occupation according to employer survey respondents with one or more paid employees in 2006, n=127 (PEI, 2007).	
Occupation	**% retiring in next five years (employers' estimates)**
Harvesting Labourers [18]	13%
Farm Supervisors and Specialized Livestock Workers	8%
General Farm Workers	11%
All employees	**11%**

[17] *According to the self-report of employers. This does not necessarily mean that 'fired' was the reason chosen on the Record of Employment for Employment Insurance purposes. They may have simply not been continued in employment, especially for temporary or casual positions.*

[18] *Harvesting Labourers were estimated as temporary employees for employers whose main commodity was vegetable and cole crops, grains, potatoes, or fruit and berry.*

Many farm employers are beginning to acknowledge a situation where some of their older and most experienced and skilled staff are going to want to retire over the next three to five years. This will be a huge challenge for farm operators. As noted earlier, the available labour pool of trained and experienced farm managers, supervisors, and specialized herdsmen is very small, and there are few new entrants moving into these types of farm jobs.

8.6 Other Strategies Used in Lieu of Labour

Given the recruitment and retention challenges increasingly faced by employers, survey respondents indicated that they have taken a number of steps to complete the work other than hiring additional workers. Fifty-three percent bought new or more equipment, or did more work themselves; 45% percent had family members do more work; 40% percent contracted out specialized tasks; 8% changed the amount of specific commodities produced; and 6% decreased the overall size of their operation (see Table 15).

Table 15: What farm employer survey respondents did in lieu of hiring labour (PEI, 2007)

Steps taken	**% respondents**
Bought new or more equipment	53%
Did more work yourself	53%
Had family members do more work	45%
Contracted out specialized tasks (e.g., crop scouting)	40%
Changed the amount of specific commodities you produce	8%
Decreased the overall size of your operation	6%

9. Training

9.1 Summary

Both farm employers and farm workers noted an increasing need for more structured training opportunities within the industry as a whole. Employers indicated that agriculture has been facing major trends that require the farm operator to be more prepared than ever before. As a result, employers see the need for more advanced and structured training for farm operators.

While key informants and focus group participants acknowledged that it is changing, many farm operators have ‘mixed feelings’ about worker training. They recognize that there is an increasing need for worker training from a farm productivity, farm safety and food security standpoint; however, many tend to see training as a cost rather than an investment. Despite these fears, many farm operators are seeing the need and value for training for their employees, and many of their employees are encouraged and supported to take various training courses. Employers also noted that some level of pre-employment training is needed; in an environment where many new workers have limited or no exposure to farming and farm work, this is becoming a necessity. Other farm employers were quick to point out that, while pre-employment training in some areas would help (especially in areas where certain certificates are required like safety, truck driving, fork lift operation, etc.), the most useful and relevant training still needs to take place on the farm. Employers were also critical of the issue of linking eligibility for training costs to EI eligibility. They viewed this as a barrier to accessing training dollars to assist with the training of their existing workforce. And lastly, several employers noted that the province (schools and educational institutions) must begin to place a much stronger focus on exposing younger people to ‘hands on’ work and the trades.

In terms of training, most farm worker focus group participants felt that many ‘hands on’ jobs don’t always require training. However, many workers also noted that more and more jobs are requiring specific training because of safety, health, and environmental concerns and issues; things like first aid and safety training, machine operation (fork lift), large truck driving, and working with pesticides. Because of increased health, food security, farm safety and environmental regulations, more training and certification is needed for farm workers.

The farm worker survey revealed that many workers have already participated in various training programs related to their work in agriculture such as farm safety and pesticide courses. In terms of their interest in further training, the worker survey revealed that 49% of respondents were very or somewhat interested in further training related to the agriculture industry. In addition, 42% of respondents currently had a Class 3A license to drive large trucks (e.g., potato trucks). Further, 35% of those who did not have a Class 3A license were ‘very interested’ or ‘interested’ in getting a Class 3A license.

9.2 Farm Employer Perceptions of Training Needs

Both farm employers and farm workers noted an increasing need for more structured training opportunities within the industry as a whole. In key informant interviews and focus groups discussion, employers indicated that agriculture has been facing major trends that require the farm operator to be more prepared than ever before; these trends include: global competition, the advent of the large corporate farm, huge fiscal investments, increasing environmental and food safety concerns, changing consumer expectations, worker recruitment and retention difficulties, etc.

> *"In the future there is likely to be less 'hands on' labour …. farms will need to continue to mechanize and automate …. and they will need a smaller workforce of workers who are higher skilled technically and mechanically …. all the advances we are seeing in farm technology and farming methods will drive this…" (Employer key informant)*

Given this business environment, employers see the need for more advanced and structured training for farm operators as well; especially those who do not (or cannot afford to) contract out specialized services. Farm operators see the need for more business planning and financial management knowledge and skills, succession planning and/or ownership transition planning, and human resource management.

> *"The modern farm has three components: financing, business management and labour …..today's farm owner needs to develop his/her understanding of all three areas to be successful …" (Employer focus group participant)*

While key informants and focus group participants acknowledged that it is changing, many farm operators have 'mixed feelings' about training. They recognize that there is an increasing need for worker training from a farm productivity, farm safety and food security standpoint; however, many tend to see training as a cost rather than an investment.

> *"….. farmers have this fear that if someone is trained, or gets more training, one of two things will happen …. he will want more money ….or he will end up going to another farm who will pay more money… most farmers still tend to see training as a cost not an investment…." (Employer key informant)*

However, despite these fears, many farm operators are seeing the need and value for training for their employees, and many of their employees are encouraged and supported to take various training courses. Training programs specific to new equipment and farm technology, truck driving (Class 3A), environmental and food safety regulations, and safety and first aid training are among the main areas identified by employers. Some employers felt that there needed to be more localized training (training offered in PEI) for some of the more specialized farm jobs.

> *"….we need more local training specialized training for new entrants and existing workers …. perhaps a six to eight month course at the Atlantic Veterinary College to provide training in things like animal husbandry…." (Employer focus group participant)*

Employers also noted that some level of pre-employment training is needed; in an environment where many new workers have limited or no exposure to farming and farm work, this is

becoming a necessity. While this is seen as important, other farm employers were quick to point out that, while pre-employment training in some areas would help (especially in areas where certain certificates are required like safety, trucking driving, fork lift operation), the most useful and relevant training still needs to take place on the farm. This is where the person is exposed to the actual job tasks, and is able to work with other workers who have useful experience and knowledge.

> *"Training and having basic working skills is a must …..almost all young people coming forward have absolutely no farming experience." (Employer focus group participant)*

> *"Having some basic entry level training would be a big help ….. the farm owner could then build on this ….plus if someone went out and took this type of training, it would demonstrate a bit of interest and commitment to farm work…." (Employer focus group participant)*

Farm employers noted that for the larger and more profitable farms and/or commodity groups, farm operators are able to pay for or offer some incentives to employees who take training. However, for many farm operators, paying for these courses for employees, or giving employees time off may not be possible. Many employers suggested that some level of training subsidy should be available to assist; especially for existing farm workers who work full year and are not eligible for any Employment Insurance training subsidy dollars.

Employers were also critical of the issue of linking eligibility for training costs to EI eligibility. They view this as a barrier to accessing training dollars to assist with the training of their existing workforce.

> *"The EI attachment is a barrier to training for employed workers …. this should not be the case ….. the farmer pays out a lot of dollars each year for his share of the EI premiums …. and he receives none of the benefits …. he can't access training dollars to send his employed workers to necessary training." (Employer key informant)*

> *"…. If there is anything that I would strongly caution against …..NEVER, NEVER, NEVER, tie training to EI eligibility ….. don't make it a requirement to be EI eligible to access training…." (Employer key informant)*

And lastly, several employers noted that the province (schools and educational institutions) must begin to place a much stronger focus on exposing younger people to 'hands on' work and the trades.

> *" The worst thing they could have done for any industry that relied on 'hands on' aptitude, skill and experience was to 'get rid of' PVI[19] and the trades programs in the high schools." (Employer focus group participant)*

[19] *Provincial Vocational Institute*

9.3 Farm Worker Perceptions of Training Needs

In terms of training, most farm worker focus group participants felt that many 'hands on' jobs don't always require training.

> *"….you can learn by watching others and just doing the job ….if you are hired to do a certain job that is pretty straight forward ….you can learn what needs to be done in a few days…." (Worker focus group participant)*

However, many workers also noted that more and more jobs are requiring specific training because of safety, health, and environmental concerns and issues; things like first aid and safety training, machine operation (fork lift), large truck driving, and working with pesticides. Because of increased health, food security, farm safety and environmental regulations, more training and certification is needed for farm workers.

The farm worker survey revealed that many have already participated in various training programs related to their work in agriculture; including:

- Farm safety (38% of worker survey respondents)
- Pesticide (38%)
- Operating farm machinery (32%)
- Handling livestock (30%)
- Food safety (24%)
- Agricultural mechanics (21%)
- Forklift (21%)
- Organic practices (10%)

In terms of their interest in further training, the worker survey revealed that 49% of respondents (51 out of 116 respondents) were very or somewhat interested in further training related to the agriculture industry. The areas of preference included:

- Working with/handling machinery (18% of worker survey respondents)
- Agricultural mechanics (16%)
- Forklift (10%)
- Farm safety (10%)
- Pesticide (8%)
- Handling livestock (8%)
- Food safety (6%)
- Organic practices (6%)

In addition, 42% of respondents currently had a Class 3A license to drive large trucks (e.g., potato trucks). Further, 35% of those who did not have a Class 3A license were 'very interested'

or ‘interested’ in getting a Class 3A license. It should be noted, however, that these courses have been offered to farm workers in the past with limited uptake. To take these courses costs both course fees and time away from the job while on training, and these costs may have been prohibitive to both the worker and farm employer.

10. Overall Summary of Findings

Generally speaking, there appears to be quite of bit of similarity and cohesion between the findings from all data collection streams. The document and Census/secondary data review describes an agriculture environment that has been impacted by global, national and regional trends, and many of these trends are directly impacting on labour supply and demand. Primary research (surveys, interviews and focus groups) confirmed many of these trends, and provided specific detail as to impacts.

Based on the data, it is evident that while the actual number of farms, farm operators and farm workers has been in decline on PEI over the past decade or more, the human resource demands of both operating a farm and working on a farm have increased on many levels. Farm operators must be more knowledgeable and skilled with regard to business, financial and human resource management. Similarly, the farm worker must be equally more knowledgeable and skilled regarding new farm practices, working with more advanced equipment and technology, environmental and food safety regulations and standards, and occupational health and farm safety standards.

Many farm operators have been facing worker recruitment and/or retention difficulties for some time, with those farm operators requiring seasonal and/or temporary workers (General Farm Workers or Harvesting Labourers) experiencing the greatest difficulties. In total, 76% of employers indicated difficulties recruiting at least one duration (full year, seasonal, or temporary) or occupation of worker and 43% of employers indicated difficulties retaining at least one duration or occupation of worker. While most farm operators continue to rely on ‘word of mouth,’ ‘family and friends,’ and local job advertising to address their recruitment needs, more farm operators are beginning to look at other alternatives such as migrant and/or immigrant farm workers. Some farmers (notably in the harvesting and food packaging areas) have been using the Seasonal Worker Agriculture Program to bring in temporary migrant workers and are finding it very satisfactory; these operators believe it is one of the strategies that must be further developed.

Employer survey respondents rated the largest recruitment issues as competition with other PEI industries, competition with other provinces, and the image of the industry. Farm workers who completed the survey indicated the top rated factors that would support them to remain in agriculture were farm located close to where you live, how you are treated by your employer or supervisor, and being able to work outside. Farm worker survey respondents also noted the top rated factors that may cause them to leave agriculture, which were the wage level you get, the number of regulations in the agriculture industry, benefits (e.g., health, dental, vacation), and being able to get work in Alberta or other provinces.

Employers noted that they increasingly find local labour either is not available, or if available, it is unstable and unpredictable, and hence unproductive. In addition, employers in both key informant interviews and in focus group sessions indicated that the Employment Insurance (EI) Program continues to be a barrier or constraint to accessing local labour; this was particularly voiced by farm employers in the rural parts of the province. The perception is that the perceived

rigidity around the hours of work and income earned, and the perceived complexity of reporting and tracking this, has made it ‘too much of a hassle’ for skilled workers to work ‘a few weeks of work’ to help the farmer get the crop harvested.

Farm operator and farm worker training is another area in which the demands and needs have been changing over the past decade. Again, all data streams confirm the need to build formal, structured training programs to assist operators and farm workers become more prepared to manage in the face of an industry undergoing change. And, while there is need to do much more in this area, the data shows evidence that many farm operators and farm workers recognize the need for, and are interested in, training and development initiatives.

11. Supply and Demand Analysis

11.1 Overview of Model Development

The primary data and available secondary data along with insights gleaned from this study were used to develop a simple model of labour market supply and demand in the agriculture industry on PEI. Where relevant, high and low estimates were provided to gauge the 'sensitivity' of the predictions based on changes in the assumptions/estimates on which the predictions were based. Estimates are for the total labour force (all three occupations [20] combined) excluding farm operators. A five-year time window for forecasts was chosen. Limitations are noted in the text below.

As with all forecasts, caution should be used as the predictions are subject to change as there may be other relevant variables that were not included in the model. As well, any change in the estimates of variables that were included in the model will change the forecasts. Any changes made by the industry to improve future labour supply will obviously influence the accuracy of these projections as will any other unexpected events or trends affecting the industry or the labour market more generally.

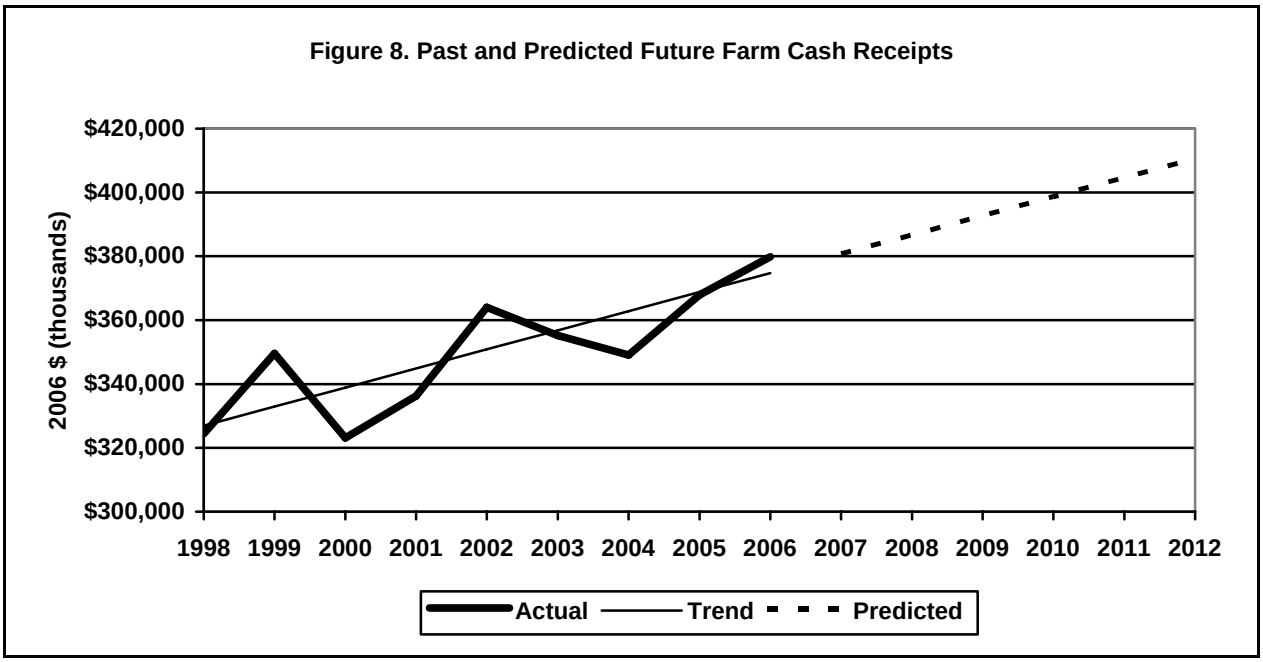
11.2 Demand

Data to estimate future demand included past history of growth in farm receipts (total gross sales) from 1998 to 2006, changes in the total agriculture workforce from 2000 to 2006, and 2007 employer survey and worker survey data from this study.

Growth in farm cash receipts averaged 2.1% per year from 1998 to 2006. Thus, a prediction of future growth in farm receipts would be about 2% per year if current trends continue (see Figure 8 below). However, that growth could be driven in part by increases in prices. Furthermore, it is not known whether this would be translated into an increase in demand for workers as machinery purchases/upgrades or other strategies could be used in lieu of labour. Nevertheless, this study demonstrated that employers were using a variety of strategies in lieu of labour so it is not unreasonable to expect that the limits of these strategies have been, or soon will be, reached in many areas (except for machinery).

Labour Force Survey data described earlier in Figure 5 indicates the total agricultural labour force in PEI (including farm operators) has remained relatively unchanged in the range of 4,200 to 4,900 from 2001 to 2006. Between 2001 and 2006, the number of farm operators in PEI actually declined by 5.9%, down 145 operators, from 2,455 to 2,310. Thus the number of farm employees (other than farm operators) likely increased slightly during this time frame.

[20] *Farm Supervisors and Specialized Livestock Workers; General Farm Workers; Harvesting Labourers*



The employer survey revealed that slightly more employer survey respondents thought their farm operation would increase in size (27%) than decrease (14%) over the next five years while the remainder predicted no change or were not sure. Slightly more employers predicted the need for additional workers than predicted the need for fewer workers in all three durations of employment. Six percent more employers predicted a need for additional full year workers than predicted a need for less. Ten percent more employers predicted a need for additional seasonal workers than predicted a need for less. Finally, six percent more employers predicted a need for additional temporary workers than predicted a need for less. This equates to a predicted slight increase in demand for those types of workers over the next five years. Although the magnitude is not known, it is in line with the increases in farm receipts predicted above.

In light of the two sources of data above, it was decided to estimate demand as static or unchanged (low case scenario) and increasing 1% per year (high case scenario). The cumulative number of additional workers needed (above present numbers) under each scenario are listed in Table 16 below. It should be noted that this is cumulative such that the 2012 estimates are the number of additional workers needed in total from 2008 to 2012 due to changes in demand.

Table 16: Estimated cumulative demand for workers, 2008-2012.

Scenario	2008	2009	2010	2011	2012
Low demand 0% growth	0	0	0	0	0
High demand 2% growth	36	72	108	144	180

11.3 Attrition

Attrition of workers were shown in this study to be often due to loss of workers going back to school (to retrain for other industries), loss directly to other industries without retraining, loss to other provinces (agriculture or other industries), or loss to retirement. Estimates of retirement were 2.2% per year according to the employer survey (11% over 5 years), 1.6% per year according to the worker survey (8% over five years), and 1.6% based on a crude analysis of age breakdowns of industry workers from Statistics Canada (data not shown). Workers leaving their 2006 job to go to school was estimated at 8% based on the worker survey although it is not known what proportion of those were attending an agriculture school versus retraining for another field.

The estimates of overall loss from the field were based on the worker survey with 10% per year loss from agriculture (20% of workers planned to leave agriculture in the next two years) and 15% per year loss (based on the proportion of workers surveyed new to the agriculture field in 2005).

The following table provides the estimated cumulative total number of workers lost per year (i.e., annual attrition) from 2008 to 2012. It should be noted that this is cumulative such that the 2012 estimates are the number of workers lost to attrition in total from 2008 to 2012. The starting number of employees in 2006 was estimated at 3,600 (seasonally adjusted number from Service Canada). This represents a continuation of the existing situation that employers are facing in terms of attrition and annual turnover in the industry as a whole. It is possible that increasing wages or demand in other sectors could lead to an acceleration of attrition but that is not factored into this model.

Table 17: Estimated cumulative attrition of workers, 2008-2012.

Scenario	2008	2009	2010	2011	2012
Low loss 10% attrition	360	684	976	1,238	1,474
High loss 15% attrition	540	999	1,389	1,721	2,003

11.4 Net Estimates of Worker Requirements

Combining the information from the estimates of attrition and estimates of growth in demand for workers provides a net estimate of the number of workers that need to be recruited in order to meet demand up to the year 2012. It is estimated that between 360 and 576 workers need to be recruited each year and a cumulative total of between 1,474 and 2183 workers need to be recruited from 2008 to 2012.

Table 18: Estimated cumulative number of new workers required, 2008-2012.

Scenario	2008	2009	2010	2011	2012
Low loss - low demand scenario	360	684	976	1,238	1,474
High loss - high demand scenario	576	1071	1497	1865	2183

This does not mean that this number of existing farm workers will be lost as it is likely that the rate of loss of new recruits in each year to attrition would be much higher than the rate of loss of farm workers with a longer history in the field. Thus, there would likely be a more gradual loss of experienced farm workers and a more rapid annual turnover of new recruits to the industry. Overall, there is not one factor causing a precipitous loss of workers at a particular point in time. Rather, a number of broad economic and demographic forces will apply themselves gradually, but relentlessly, over a number of years.

It should be kept in mind that these numbers are estimates. It should also be kept in mind that this is an estimate for all durations and occupations of workers combined. This study demonstrated that rates of turnover are higher for temporary and seasonal workers than for full year workers. Similarly, the annual turnover of Harvesting Labourers and General Farm Workers is much higher than Farm Supervisors and Specialized Livestock Workers. Thus, the largest component of the above estimated numbers of workers are for seasonal or temporary farm workers in either the General Farm Worker or Harvesting Labourer occupations. While Farm Supervisors and Specialized Livestock Workers are a small and specialized group that comprises only a small proportion of the overall workforce for the industry, the shortage of even one such individual could have more serious consequences for an individual employer.

As noted above, this represents an extension of the current situation where there is an annual loss of workers for varying reasons though it is somewhat higher than current estimates as the high case scenario factors in a somewhat larger future demand for workers.

It should also be noted that this represents an overall picture of the industry. The employer survey results, though limited in sample size per sector, indicated differences in future demand by sector (larger future demand growth in the vegetable and cole crop/fruit and berry sectors, which were combined for analysis purposes). Secondary data shows that the animal commodity groups such as beef and swine have been subject to market forces that have led to decreases in farm receipts and likely demand for workers.

11.5 Future Supply

The future supply of workers for the agriculture industry will be more limited than the past few years due to a number of broad labour market factors and trends noted in this report such as the impending retirement of the baby boomer cohort and the shrinking youth cohort who are often disengaged from the agriculture industry. Thus, the supply will be shrinking at the same time as the need for ongoing recruitment of workers to the agriculture industry continues or even increases. Whether the industry is faced with broadening worker shortages will depend on the extent to which the industry as a whole, and individual employers, adapt to emerging labour market pressures.

11.6 Conclusion

The simple analysis presented above indicates the scope of future requirements for workers (particularly General Farm Workers and Harvesting Labourers). It was estimated that between 360 and 576 workers will need to be recruited to the industry each year to replace those exiting the industry and, possibly, to meet new demand in some sectors. To recruit the needed workers, the industry will have to work together, and with other partners, on the key strategies laid out in Section 12 of this report.

12. Critical Issues and Proposed Strategies

The foregoing sections of this report provide a wide range of detail regarding the current state of the PEI agricultural industry, and the subsequent impacts of these changing dynamics and trends on current and future labour supply and demand. As the data indicates, many of the critical factors impacting on farm labour are the result of regional, national and global trends that go beyond the capacity of a single farm operation, and in some cases a single industry, to address. Some of these include:

- A decline in the number of farms, while those remaining farms are increasing in size, requiring more capital intensity, which in turn requires more business and financial management expertise;
- An increase in specialized equipment and farm technology, and the subsequent impact on farm jobs/work tasks and skills required;
- An increasing gap between education levels of existing and/or available workers and rising skill demands of agriculture jobs/work tasks; and
- An increasing consumer interest in the quality and safety of food products (regulations and food safety standards); farm operators will need to have employees who are 'tuned into' customer service issues, and are trained and experienced in food safety standards.

In terms of current and future labour supply, all data sources describe a tightening labour market; one that will become more challenging for the agriculture sector in the decade ahead. The number of people working in agriculture is declining, and the average age of those who are currently working in the sector is increasing. It was estimated that between 360 and 576 workers will need to be recruited to the industry each year to replace those exiting the industry and, possibly, to meet new demand in some sectors. The industry needs to better understand these trends, and pursue and implement initiatives designed to mitigate the negative impacts on their sector.

The following section outlines a number of the critical issues emerging from the data that are impacting on the labour supply and demand within the agriculture industry. These issues are not new, and the industry has been making efforts to more effectively address some of these issues over the past several years. Hence, the industry is not starting from 'ground zero;' and the strategies offered in this section are intended to strengthen and build on what has already been happening.

The material in this section is presented in the following way: the critical issue is briefly described; any known existing initiatives that address the issue are identified; and additional strategies to move forward are proposed.

12.1 Declining Labour Force

This critical issue has become increasingly evident over the past decade, and is mostly driven by broad demographic factors including: an aging labour force, a shrinking younger population, and increased out-migration of younger, skilled workers. The decline in labour force numbers is evident in Farm Census data which profiles reduced numbers of farm operators as well as farm workers.

Existing Initiatives

The industry, in collaboration with other sponsors, funders and stakeholders, has implemented a number of initiatives to address the impacts of labour force decline on a number of levels, including:

- The Future Farmers Program
- Agriculture Employment Officers Program
- The Seasonal Agricultural Worker Program (which assists to bring in temporary, foreign migrant labour)
- The Development of Farm Technician Apprenticeship Program (awaiting decision regarding implementation funding)

In addition, there are other existing employment placement programs that the industry can access to further strengthen and expand its efforts to recruit farm workers; these include:

- Employment Placement Programs for Youth
- Employment Placement Programs for Persons with Employment Barriers (low education, social issues, etc.)
- Employment Placement Programs for Persons with Disabilities
- Employment Placement Programs for Newcomers

Strategies to Move Forward

The above initiatives could be further enhanced:

- Implement the Farm Technician Apprenticeship Program to better prepare and support new workers coming into the industry.
- More deliberately ‘break out’ prospective farm workers by age, gender, experience, non-traditional groups, etc., and begin to develop specific job promotion activities/events to engage these groups; (e.g., retired persons, persons with disabilities, newcomers, immigrants).
- Explore more directly the potential of expanding the role of women in terms of the scope and variety of jobs available to them; this would include ensuring that they have access to the training required to work in such jobs, and the strategy would need to address child care needs.

- Explore with Service Canada the option of developing/implementing a ‘pilot program’ to provide a wage subsidy to existing workers to be trained/mentored to take over more senior/advanced jobs as a means of filling positions left vacant by retirements (especially Farm Supervisor and Specialized Livestock Worker positions).
- Expand/develop farm employer awareness of the need to develop human resource approaches and methods such as: a focus on the positive nature of the work; offering a broader range of supports to employment; developing more options for training of existing workers, and offering the potential for advancement along a ‘career path.’
- Explore initiatives to more effectively address the barriers that make it difficult for prospective workers (e.g., transportation concerns, child care, work/job safety, proper clothing or equipment, etc.).
- Establish a full-time agriculture farm worker placement agency to coordinate employment placement (e.g., identify employer needs, identify potential labour supply, match employer and worker, etc.); this mechanism would work to coordinate placement of local labour, out-of-province workers, migrant farm workers, etc. This agency could be the formalization and expansion of the existing Agriculture Employment Placement Officer Program.
- Provide information and supports to employers to improve working conditions for harvest labourers.

12.2 Competition from other Industry and Jurisdictions

Farm operators are facing stiff competition for farm labour from a variety of industries and jurisdictions including: Aerospace, Trucking, Forestry, Construction, the emerging Wind Energy field, Provincial Government employment programs, and from other Canadian provinces. In addition, farm employer survey respondents noted that there is competition among farm operators themselves for farm labour, depending on the time of year and the tasks at hand.

Existing Initiatives

- Some farm operators now 'informally' share labour, but this happens on a very limited scale, and there is no existing programs or infrastructure to support this.

Strategies to Move Forward

- Explore the potential of farm operators working in collaboration with each other, and with other relevant industry sectors (fishing, forestry, construction, tourism) to 'share employees' with similar skills and experience over the course of the work year. Identify the type of infrastructure and supports needed to implement this concept (perhaps as a pilot project).
- Build up the industry's career promotion and planning profile – especially with the younger generation. Begin to more proactively promote the assets of the industry; more actively promote the positive aspects to choosing a career in agriculture; promote the new technology and 'knowledge economy' theme (e.g., agriculture is now 'high tech' – computers, sophisticated equipment and technology, innovative production techniques/methods, science and research based).
- Develop and promote an industry 'career path' based on the industry's utilization of the above 'knowledge economy' elements; promote a 'career path' that helps a person see how they might be able to advance in terms of jobs, responsibility, wages, etc. as they become more experienced/trained.
- Tailor/align recruitment and training efforts to support areas of increasing revenue and demand for labour to ensure growing segments of the industry have the necessary skilled labour to support that growth.
- Examine existing recruitment practices re: methods, approach, language/messages presented in job ads, etc. with the objective to present the sector as a forward thinking, leading 21st Century industry.

12.3 Disengaged Younger Generation

The current generation of Island young people has grown up with very limited or no exposure to farming and farm work except what they hear in the media. As a consequence, very few young people view farming and farm work as a possible career or occupational path.

Existing Initiatives

The industry through the efforts of the PEI Agriculture Sector Council have undertaken a number of initiatives to engage youth at the school level, including:

- The Agriculture Certificate Program has been expanded into a third Island High School (September 2007 will see the Program being offered in Westisle Composite High School in West Prince).
- The development of the Agriculture Educators Workshop, the Agri-Science Teacher's In-Service Workshop, and other school-based awareness programs.
- The annual presentation of Agri-Science Prizes and the Young Farmers Bursaries to graduating students who showed commitment to the Island's agriculture industry.
- Other existing youth-related employment programs (not necessarily agriculture-based and often targeted at disadvantaged youth).

Strategies to Move Forward

- Continue to work with educators, schools and parents to further strengthen and expand the presence/profile of agriculture programs and courses within Island schools.
- Provide young people with early exposure to agriculture and farm work; develop a locally-based youth farm orientation program – e.g., a few farms in each county provided with resources/supports to orient youth to the farm environment and work tasks. Interested students in the high school Work Coop Program might be assigned to these farm operations for work placement.
- Work in collaboration with the PEI Association of Sector Council's Career Promotion Initiative; ensure that agriculture as a business field and farm work as a career path are an active part of the industry's career promotions initiative.
- Identify several young farm workers across the province who can be trained and supported to be public 'role models' for other youth; ensure that these young workers participate in, and have high visibility in, school job fairs, career days, etc.

12.4 Training and Development

While there are a variety of short-term training courses and initiatives offered, the PEI agriculture community has very little access to locally-based formal career training. This is a critical gap in an era where farms have become larger and more mechanized, regulatory standards more stringent and complex, and consumer food safety and security concerns are paramount. Both farm operators and farm workers need access to ongoing training in order to stay abreast of industry trends and demands.

Existing Initiatives

- The Atlantic Agriculture Leadership Program is a two-year program for potential agricultural leaders.
- The Future Farmers Program and the Annual Young Farmers Forum.
- Existing training programs regarding farm management and ownership (farm worker training, mentoring, succession planning and transfer of responsibility).
- The PEI Agriculture Sector Council has recently partnered with the UPEI Centre for Life Long Learning (Profit Learn) to offer a series of human resource training courses to help farm operators explore and develop good HR practices. A recent example of this is the collaboration between the PEI Agriculture Sector Council and the PEI Trucking Sector Council to sponsor and deliver a workshop – 'Hiring and Keeping the Right People.'
- The PEI Agriculture Sector Council, on an annual basis, also promotes a series of practical farm-based courses, including: farm safety training, forklift operations, Class 3A truck driving, pesticides CECs, computer training, and first aid training. These are made available to farm workers in an ongoing manner over the course of the year.
- A farm safety orientation session is being developed for farm workers in Spanish to assist farm employers who are hiring migrant labour from Mexico.

Strategies to Move Forward

- Continue to build on the existing menu of training available to farm workers; develop a 'packaged approach' to delivering the training (a series of courses) that will lead to some formal level of recognition in that the worker receives a certificate/diploma of achievement (the career path approach).
- Expand the farm employer human resource training workshops including a focus on exploring general recruiting and employment attitudes; addressing employment barriers such as language, transportation, and child care; providing small jobs benefits/perks such as lunch, gloves, regular breaks, and periodic gas money; and exploring the potential of recruiting workers from underutilized groups within the population (e.g., persons with disabilities).
- Acknowledge and provide some level of recognition and reward for employers who adopt and practice positive human resource practices.

- Strengthen existing ‘succession planning’ and/or transfer of operation initiatives to assist farm operators who are moving toward retirement; the objective would be to look for ways to ensure that the farm operation continues to be viable, productive, and continues to contribute to the economy.

12.5 Public Perception of the Industry

There is a negative public perception of the industry; media stories often portray the industry as an industry 'in trouble,' not environmentally friendly, etc. Many farm operators and industry stakeholders believe that this image is having a negative impact on the interest and motivation of people to consider farming as an occupation or career.

Existing Initiatives

The industry has developed and implemented a number of initiatives, including:

- The PEI Agriculture Awareness Committee has led several initiatives:
    - Agricultural day care and day camp presentations.
    - Distributing information resources at the Annual PEI Teachers Federation Annual Convention.
    - Coordinating the PEI Open Farm Day (3,000 farm visits in 2006), and the Agriculture and Forestry Fun Day (450 students participated).
    - Conducting ongoing farm awareness days/tours.
- The PEI Agriculture Sector Council has developed and implemented a website. In addition to providing a range of information regarding the industry on PEI, over 100 employment opportunities have been listed on the website since it was established in May 2006.
- The PEI Federation of Agriculture is promoting industry profiles and practices (e.g., newspaper features of 'environmentally friendly' farm operators demonstrating good practices).

Strategies to Move Forward

- The PEI Agriculture Sector Council continue to work in collaboration with the PEI Agriculture Awareness Committee to develop a strong, high profile industry promotion strategy; develop a set of 'messages' around the strengths/assets of the industry and strongly promote these using various public information/education methods and media approaches (e.g., PEI agriculture provides consumers with high quality, safe foods, contributes to Island tourism by maintaining well groomed fields, helps to fosters the best of what the Island has to offer visitors).
- Develop strategic partnerships with other high profile industry stakeholders such as the emerging BioScience and Nutriscience fields, the work of the Food Technology Centre. The objective is to demonstrate that agriculture is a science-based, 21st Century industry and to present a positive and more progressive image to the public.
- Engage existing specialized farm workers and begin to profile their knowledge, skills and experience in a broader and more public way; e.g., establish a Canada farm skills

competition along the same lines as the existing annual Canada Skills competition that is targeted at other trades such as carpentry.

12.6 Employment Insurance and Other Social Programs

It is the perception of many farm employers that the Employment Insurance Program, and other Provincial Government employment or income support programs (Employment Development Agency, Summer Road Crews, Social Assistance) limit access to available labour. Farm operators in the rural areas particularly believed this to be the reality. At the same time, the importance of EI in maintaining the availability of a seasonal labour force was noted. There are several existing initiatives and other possibilities that could be explored to make optimal use of existing income support programs.

Existing Initiatives

In recent years, there have been several modifications to the Employment Insurance Program to address barriers and constraints that promote the availability of labour; these include:

- The flexible weeks rule
- An increase in allowable earnings
- Training funding/incentives for EI-eligible workers

Strategies to Move Forward

- Work with Service Canada to conduct regional workshops with farm operators and farm workers to review and better understand existing EI rules and requirements.
- Explore with Service Canada the concept of developing a PEI agriculture-specific ‘pilot project’ to address the barriers and constraints that appear to be preventing some seasonal workers from being available to work in agriculture during high demand parts of the year such as harvest time.
- Work with the appropriate Provincial Government officials to review the provisions regarding employment and social assistance programs that appear to be barriers and constraints to farm operators accessing local labour.

13. Conclusion

While agriculture remains critically important to Prince Edward Island, not only economically but in the social and cultural domains as well, it is experiencing an ongoing decline in both the number of farm operators, and in the farm labour force. At the same time, much of the industry is becoming more skilled, and science and technology-based.

In the short-term, as the industry moves to a smaller number of more highly skilled farm operators and farm workers: more advanced recruitment and retention practices, more proactive human resource practices, and the ongoing training of the existing workforce will be vital to ensure that the industry can adapt and prosper.

In the long-term, as many farm operators and workers move into retirement: effective career promotion, recruitment, and entry level training will be needed to ensure the renewal of the labour force. In addition, the sector faces long-term challenges of renewal through attracting young people and career changers to become farmers or farm workers.

It is hoped that the data, analysis, and suggested strategies contained in this report will assist the PEI Agriculture Sector Council in its efforts to address these challenges.

Appendix A: List of Secondary Data and Documents Reviewed

ABS Ventures, Fred Anderson. Skills Shortage Needs Assessment: Agricultural Production Equipment. Agricultural Human Resources Development Council, 2002

Bruce, David and Zwicker, Gwen. Labour Force Issues in the Food Production Sector: Labour Force Inventory and Employers Needs in the Southeast Region (NB). Rural and Small Towns Institute, Mount Allison University, for Enterprise South East, New Brunswick. October 2005

George Morris Centre, Al Mussell and Kate Stiefelmeyer. Environmental Scan and Literature Search of Agricultural Human Resource Issues. Canadian Federation of Agriculture, February 2005

Matheson Consulting Ltd. Seasonal Agricultural Labour Issues in Prince Edward Island. PEI Agricultural Human Resources Development Council, 2003.

NeoInsight, Mike Atyeo, Scott Smith, Gord Hopkins. Agricultural Learning / Skills Development Opportunities for PEI. Agricultural Human Resources Development Council, October 2003

NeoInsight, Mike Atyeo, Scott Smith, Gord Hopkins. PEI Farm Learning Study and Designation Survey. Agricultural Human Resources Development Council, May 2004

PEI Agriculture Sector Council. Website, http://www.peiagsc.ca/

PEI Department of Agriculture, Fisheries, and Aquaculture. Beginning Farmers. "A collection of resources for people new to farming or those considering farming as a career." http://www.gov.pe.ca/af/agweb/index.php3?number=1003085

Rural and Small Towns Institute, David Bruce and Gwen Zwicker. Labour Force Issues in the Food Production Sector: Labour Force Inventory and Employers Needs in the Southeast Region. Enterprise Southeast, October 2005

Service Canada, Information and Economic Services Branch. Prince Edward Island 2006 Wage Survey. 2007

Statistics Canada:

- 2006 Census of Agriculture
- 2001 Census, Canada's Workforce: Paid Work, Table 72, Cat. # 97F0012XCB2001048
- Labour Statistics Division. Labour Force Historical Review, 2005, 2006. Cat. 71F0004XCB
- Labour Statistics Division. The Canadian Labour Market at a Glance 2003. Catalogue no. 71-222-XIE, 2004

Appendix B: List of Companion Documents

Several companion reports (separately bound) are also available from the PEI Agriculture Sector Council, including:

1. Study of Labour Supply and Demand Within the PEI Agriculture Sector – Summary Report
2. Study of Labour Supply and Demand Within the PEI Agricultural Sector - Literature Review and Statistical Analysis
3. Study of Labour Supply and Demand Within the PEI Agriculture Sector - Data Collection Instruments - Technical Appendix

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