

## Economics of Southwest British Columbia Food Systems 2: Additional Commentary on Farm Finance and Employment

*Chiu C. and Polasub W.*

Two important economic contributions of the primary agriculture sector to the regional economy are income and employment opportunity generated. The economic viability of farms is foundational to a vital regional food system. Farming can be an attractive career choice only when income potential is sufficient to sustain the operation and provide reasonable return to management. Economically viable farms are requisite to advance regional self-reliance. Primary agriculture also acts as a source of raw material inputs for value-added industries and other economic activities. In addition, employment creation is equally important. When employees spend their earnings regionally, it contributes to other sectors of the region's economy, thus inducing regional economic growth.

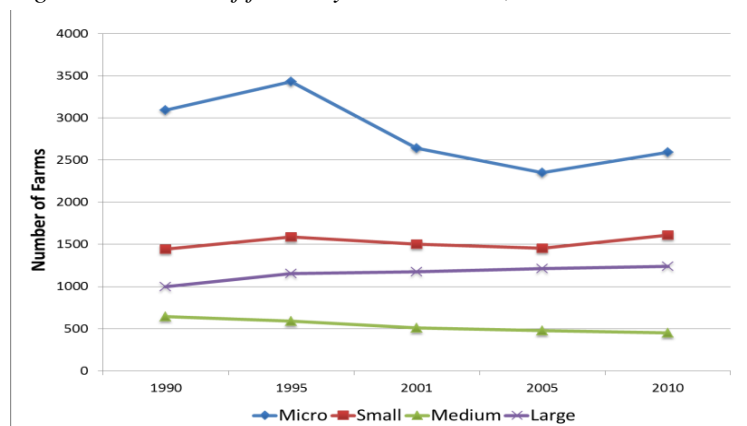
This research brief provides in-depth information on the current economic conditions of the Southwest British Columbia (SWBC) agriculture economy from the perspectives of farm net cash income and job creation characteristics. The SWBC region includes the following five census divisions: Fraser Valley Regional District, Metro Vancouver Regional District, Powell River Regional District, Squamish-Lillooet Regional District, and Sunshine Coast Regional District.

### Farm Finance Statistics

Agriculture and Agri-Food Canada (AAFC) defines four farm sizes according to their revenue classes:

- Micro farm: generating less than \$10,000 in gross cash income
- Small farm: generating gross cash income between \$10,000 and \$99,999
- Medium-sized farm: generating gross cash income between \$100,000 and \$249,999
- Large farm: generating more than \$250,000 in gross cash income

Figure 1: Number of farms by revenue class, 1990 – 2010



Data source: Statistics Canada, Census of Agriculture, 2011

**Micro farms are the largest in number in the SWBC region. Medium-sized farms are slowly disappearing.**

Since 1990, the number of medium-sized farms declined steadily while the number of large farms slowly increased. On the other hand, while the number of micro farms experienced substantial fluctuation the number of small farms has been relatively stable. Between the two previous census periods, all but the medium-sized category demonstrated an increasing trend.

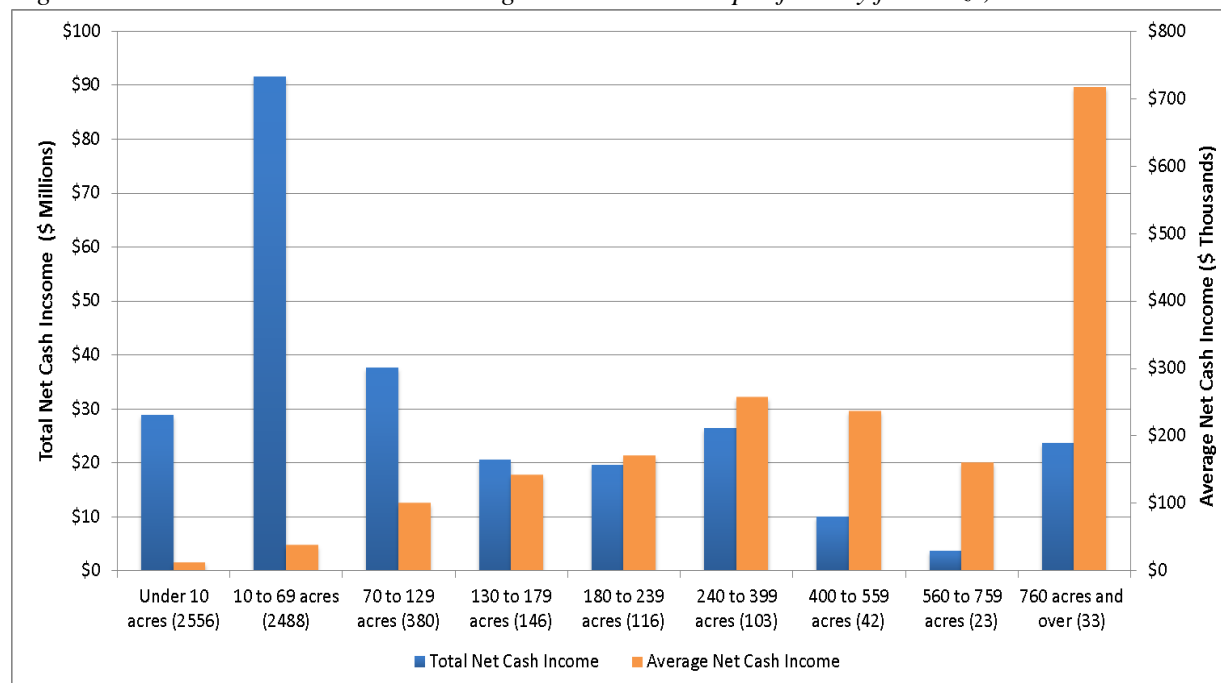
<sup>1</sup>Caroline Chiu/Research Associate/Institute for Sustainable Food Systems

<sup>2</sup>Wallapak Polasub/Research Associate/Institute for Sustainable Food Systems

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Though AAFC uses revenue class to define farm size, this research brief takes a different approach by focusing on farm acreage size. Given that agriculture land parcels in SWBC are highly fragmented into small lots it is more informative to analyze farm characteristics by farm acreage.

Figure 2: Total net cash income vs. average net cash income per farm by farm size, 2010



Data source: Statistics Canada, Census of Agriculture, 2011

**Farms less than 70 acres generated 45% of total net cash income in the SWBC region. However, on average, larger farms generated higher net cash income per farm.**

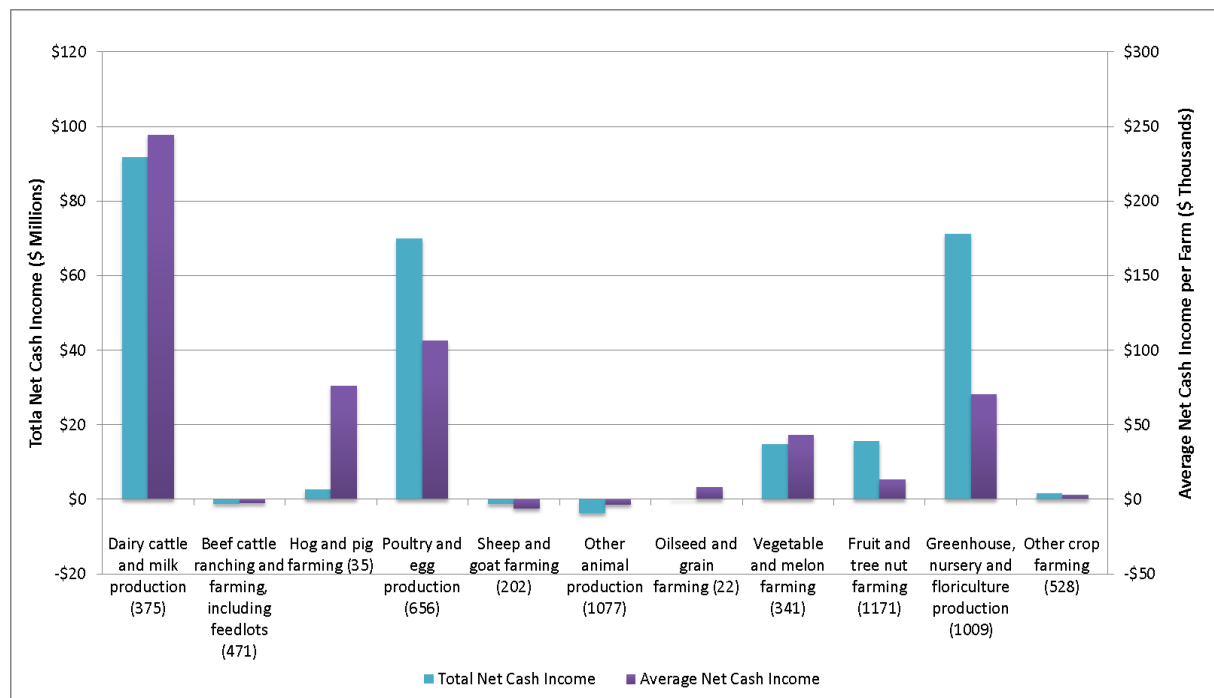
For Figure 2, note that the numbers in parentheses indicate the number of farms in each acreage category. The total net cash income is indicated by the blue column; average net cash income per farm is presented by the orange column.

Farms less than 10 acres generated \$28.8 million in total cash income, whereas farms between 10 and 69 acres generated three times more with \$91.6 million. While small farms contributed higher total net cash income compared to larger farms, average net cash income per farm is the opposite. On average, net cash income for a farm less than 10 acres made only \$11,300 and a farm between 10 and 69 acres made \$36,800. As a farm expands in area size, average net cash income gradually increases. In the case of a farm larger than 760 acres, it made significantly more than any other categories with \$716,700 on average.

**Dairy cattle and milk production generated the highest total net cash income and average net cash income per farm.**

the Among livestock industries, dairy cattle and milk, poultry and egg and swine industries earned positive net cash income in 2010. All crop farms generated positive net cash income led by greenhouse, nursery and floriculture operations. The SWBC region is replete in fruit and tree nut farms; however, due to competition, fruit farms made only \$13,400 net cash income on average, while vegetable farms earned \$43,600 net. Comparing all farm types, supply-managed farms (dairy cattle and milk and poultry and egg productions) were those that received the highest level of average net cash income per farm.

Figure 3: Total net cash income, average net cash income per farm by farm type, 2010

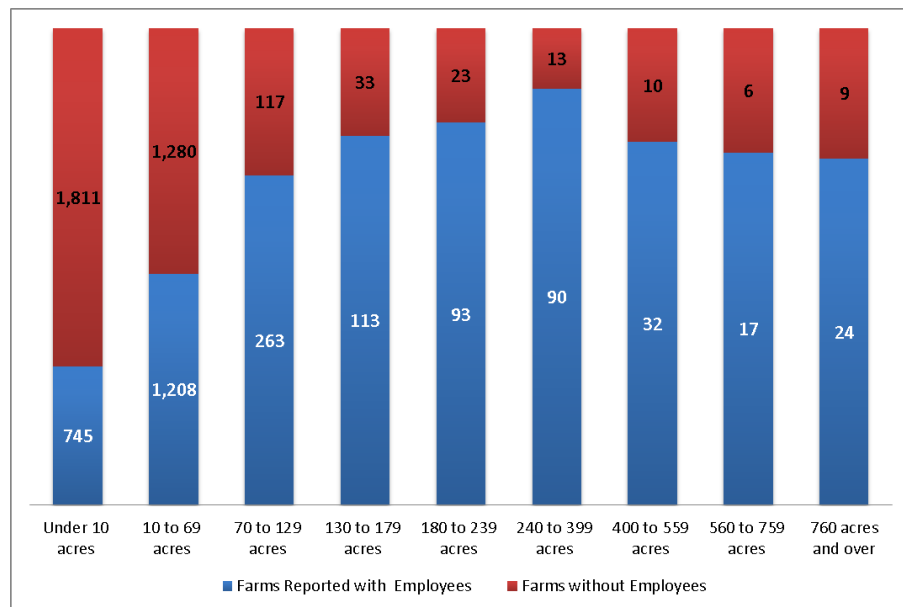


Data source: Statistics Canada, Census of Agriculture, 2011

## Farm Employment

Not all farm businesses offer employment opportunities beyond the owner-operator. In SWBC, less than 50% of the total number of farms reported having hired employees. Seasonal and year-round employee composition also differs depending on the farm type and farm size.

Figure 4: Numbers of farms reporting with and without employees, 2010

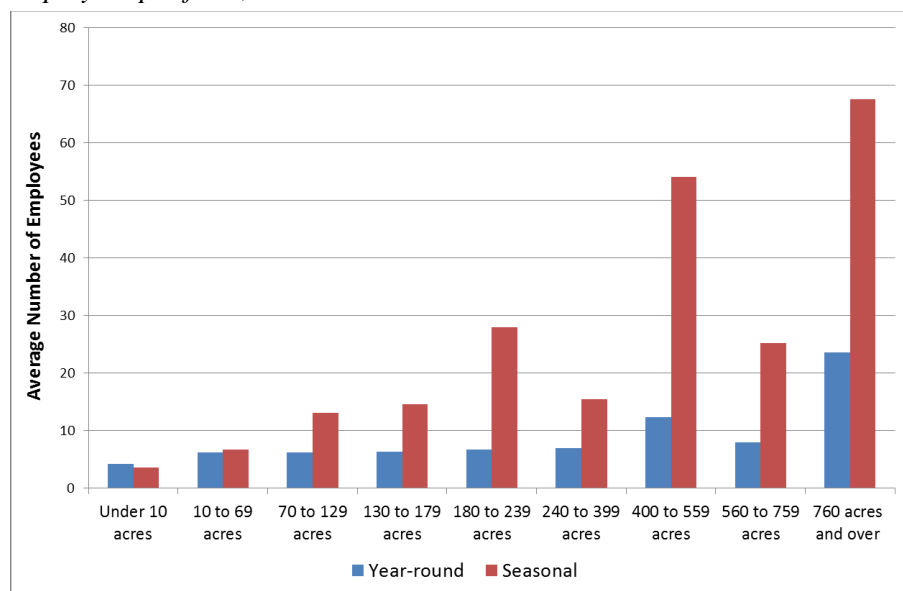


Data source: Statistics Canada, Census of Agriculture, 2011

**Smaller-lot farms were more likely to rely solely on farm operators' labour.**

Of all farms less than 10 acres, only 20% hired employees. For farms between 10 and 69 acres, 49% reported to have hired employees. On the other hand, of the farms larger than 70 acres, more than 70% hired employees. Even though the number of employees across farm sizes varies drastically, the average wage rate per employee was fairly consistent.

Figure 5: Average number of year-round and seasonal/temporary employees per farm, 2010



Data source: Statistics Canada, Census of Agriculture, 2011

**Larger farms presented larger differences in the number of seasonal/temporary and year-round employees.**

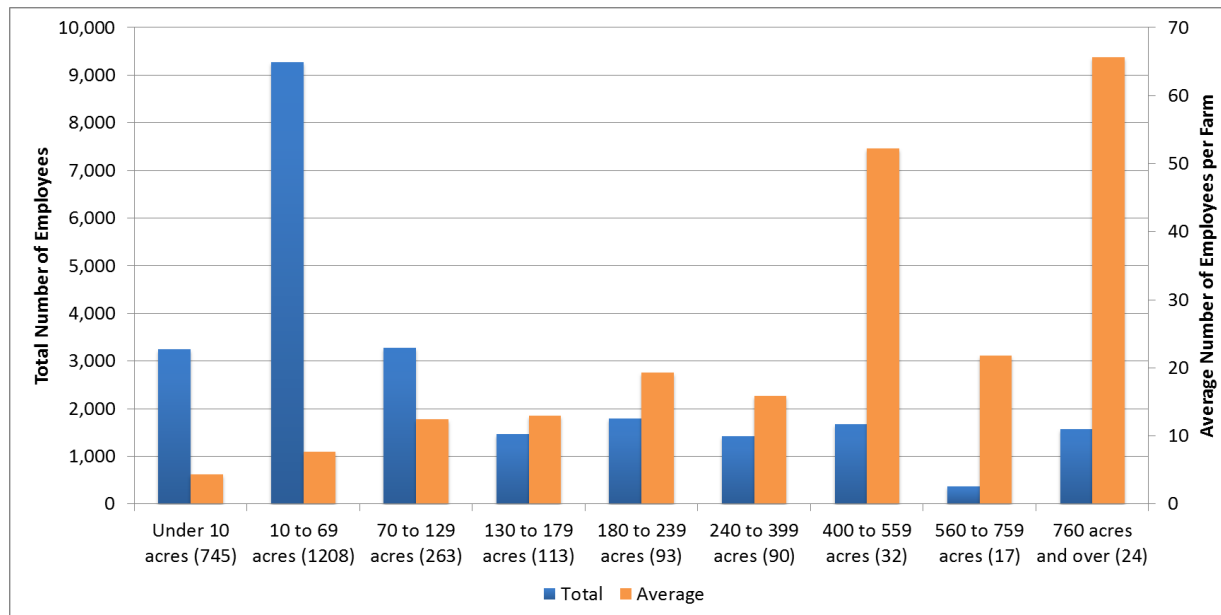
The numbers of seasonal and year-round workers were similar for small farms. On average, no more than five seasonal workers were hired for farms less than 70 acres. On larger farms the number of seasonal workers was twice as many as year-round workers.

In 2010, a year-round employee worked 45 weeks per year while a seasonal employee worked 15 weeks on average.

**Small farms less than 70 acres hired the most employees in total. However, the average number of employees per farm increased for farms larger than 400 acres.**

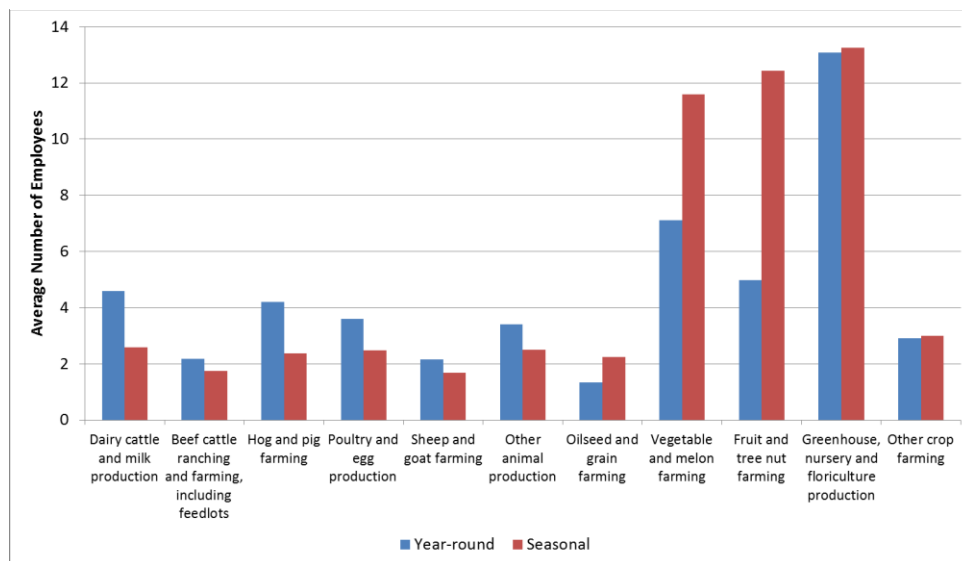
Nearly 2,000 farms of a size less than 70 acres employed more than 12,000 workers; this accounts for more than half of the total number of farm workers hired in this region. As one would expect, there is a positive correlation between farm size and average number of employees per farm. Farms less than 70 acres hired no more than 10 employees, whereas farms between 70 and 400 acres hired between 10 and 20 employees. In particular, farms 760 acres and larger hired 66 employees on average.

Figure 6: Total number of employees, average number of employees per farm by farm size, 2010



Data source: Statistics Canada, Census of Agriculture, 2011

Figure 7: Average number of year-round and seasonal/temporary employees per farm by farm type, 2010

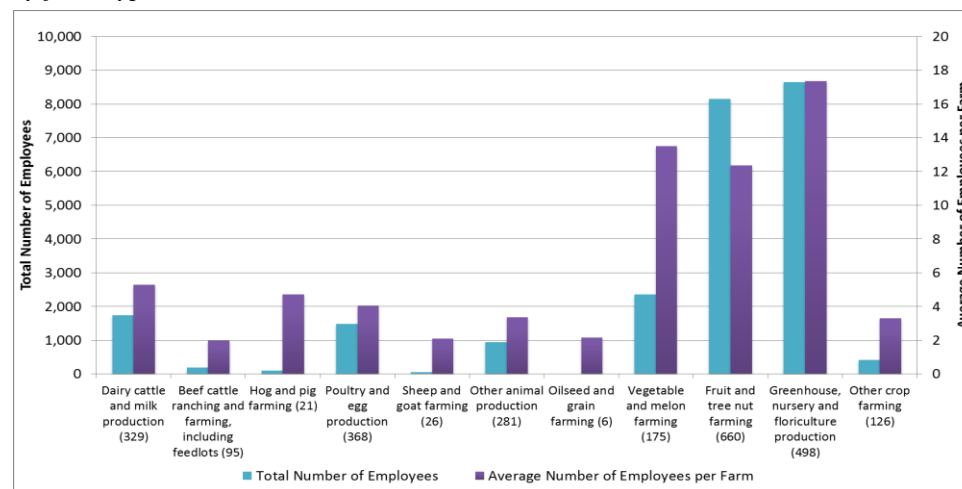


Data source: Statistics Canada, Census of Agriculture, 2011

Livestock operations were much less reliant on seasonal workers while crop operations hired a significant number of seasonal workers.

The average number of year-round employees per farm was greater in livestock operations than crop operations. The industries employing the highest average number of both year-round and seasonal/temporary workers were greenhouse, nursery and floriculture production, followed by vegetable and melon farming.

Figure 8: Total number of employees vs. average number of employees per farm by farm type, 2010



Data source: Statistics Canada, Census of Agriculture, 2011

Crop farms offered more employment opportunities in both the total number and the average number of employees per farm.

Livestock farms hired over 4,500 employees in 2010, while crop farms hired significantly more with close to 19,600 employees. Crop farms required more employees than livestock farms. Dairy farms hired fewer than six employees on average; whereas, vegetable farms hired 14 employees on average. Greenhouse, nursery and floriculture production is a dominant industry in the number of employment opportunity.

## Conclusion

Information in this research brief is presented by farm acreage and farm type as opposed to by revenue class. Smaller farms less than 70 acres contributed almost 50% in net cash income, but larger farms earned higher net cash income per farm. The leading income generating industries were dairy and cattle, poultry and egg, and greenhouse, nursery and floriculture. Fewer than 50% of farms reported having hired employees. Despite the fact that large farms hired more employees per farm than small farms, smaller farms offered more total employment

opportunities. Crop farms hired more employees in total due to the seasonal nature of crop production. In contrast, livestock operations hired more employees on a year-round basis.

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