



Economic and Social Impacts of FarmWorks Support for Food Related Businesses in Nova Scotia 2016 Survey Results

The authors wish to acknowledge the thoughtful and informed responses to this survey by FarmWorks Clients. This information, provided by people who are bringing about solutions, will help improve outcomes for all Nova Scotians.



Notes for Readers

The BC Rural Centre was created by the Southern Interior Beetle Action Coalition (SIBAC) as a robust rural development information distribution and sharing resource. The BC Rural Centre is a highly interactive, multi-media communications platform that collects, develops and shares information, tools and resources of interest to rural leaders and that will help facilitate rural development action in communities. To learn more please visit www.bcruralcentre.org

FarmWorks Investment Co-operative Limited, incorporated in 2011, operates as a Community Economic Development Investment Fund (CEDIF) that enables Nova Scotians annually to purchase common shares in a diversified portfolio of businesses. These investments provide loans to farms, food processors, and value-added food producers, helping to increase the viability and sustainability of agriculture and the security of a healthy food supply. To learn more please visit www.FarmWorks.ca

Prepared for

FarmWorks Investment Co-operative Limited ^a; BC Rural Centre ^b; Food, Locally Embedded, Globally Engaged Partnership ^c

Analysis

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Foreword

When I first became a FarmWorks shareholder (during its first offering), I admit that part of my motivation was novelty. It would be fun, I thought, to help local agriculture and agri-food businesses and get a tax credit to boot. If my investment made a substantial impact, great! If not, oh well.

It would be fair to say that – at that point – I didn't fully “get it”.

But that was then and this is now. Over the years, I have gained a much deeper understanding of how a robust agriculture and agri-food sector contributes to Nova Scotia's economy (and its rural economy especially). I have learned this not only by digesting the available literature, but also by working one-on-one with some of these ambitious ‘agripreneurs’.

Needless to say, this isn't just a novelty to me anymore: it's important business.

When I first read this report in August 2017, it was the numbers that struck a chord with me. Although I enjoy a feel-good success story (small farmer makes good) as much as anyone, these stories sometimes lack the quantitative context to be fully appreciated. That's what I like about this report: from job creation to local procurement to wage data, it offers a nuanced look at the economic and social impact that FarmWorks and its clients are co-creating.

Despite this success, neither FarmWorks nor its clients operate in a vacuum; they can only flourish in an environment that encourages entrepreneurship and risk-taking. It is my hope, then, that policymakers and regulators will not only read this report, but take action. Specifically, they can:

- Revisit and eliminate regulations that prevent small agri-businesses from scaling up.
- Introduce initiatives and incentives that foster greater cooperation between farms and agri-businesses.
- Recognize that although many of these businesses may be relatively small on an individual basis, they are collectively reshaping our economy.

As FarmWorks' impact comes into focus, I look forward to learning even more about its economic reach, its spinoff effects, and its growing role in our entrepreneurial ecosystem. I hope you will join me.

Joel Stoddart
FarmWorks Shareholder
Business Counsellor, Acadia Entrepreneurship Centre

1. EXECUTIVE SUMMARY

FarmWorks Investment Co-operative Limited was established in May 2011 by community leaders concerned about Nova Scotian agriculture and food: economic issues, security of supply in a changing world, cost, health, social and cultural issues and the environmentⁱ. FarmWorks' mission is to promote, and provide, strategic and responsible community investment in food production and distribution in order to increase access to a sustainable local food supply for all Nova Scotians.

Finding financial and other support to establish and operate food-related businesses can be difficult, especially for younger entrepreneurs or those who are not eligible for financing through existing lending agenciesⁱⁱ.

The Government of Nova Scotia established a program in 1999 to enable private investment in Community Economic Development Investment Fundsⁱⁱⁱ. FarmWorks established a CEDIF that started selling shares in 2012.

FarmWorks provides financial and business support to entrepreneurs who qualify to receive loans. By the end of 2016, FarmWorks had raised \$1,405,800 and loaned \$1,005,000 to client entrepreneurs in various sectors of the Nova Scotian food supply chain including farms, processors, retailers and restaurants.

A survey of 38 businesses that had been in operation for more than six months at the end of 2016 was conducted to gauge the economic and social impacts of these businesses, FarmWorks role in supporting them and clients' assessment of opportunities and challenges. Quantifying the economic and social impacts of FarmWorks' clients enables evaluation of the role of the FarmWorks CEDIF in helping to grow rural and urban food-related businesses.

The survey results demonstrate that FarmWorks-supported businesses are creating significant positive economic and social impacts. They are generating at least \$8,000,000 (Note 1) in annual gross business revenues and annual business expenditures of over \$6,800,000. They report 148 full-time and 110 part-time jobs with 70% of these jobs resulting from FarmWorks financing, and overall outcomes have improved for 87% of the businesses. These businesses are providing local employment and purchasing goods and services in the area or the province, they're providing good food and are raising awareness of the benefits of supporting the local economy, they're supporting community endeavours, the restaurants have become hubs for their communities and those that are restaurants are contributing to year-round tourism.

FarmWorks clients contributed many thoughtful comments on Nova Scotia's ability to be more food-secure, such as the following *"It is entirely possible, but it requires prioritizing this as the most desirable outcome by business, consumers and the government. If people perceive local food self-sufficiency as just costing them money and convenience in the short term with no offsetting short term benefit that aligns with their real values (such as saving money or access to better quality products), it will be hard to convince them that the long-term benefit is worth it (or even likely)"*.

FarmWorks is providing much-needed support for entrepreneurs who are creating and expanding food-related businesses in Nova Scotia. The multiplier effects of CEDIF investments generally, and FarmWorks specifically, require additional analysis beyond the scope of this report.

2. INTRODUCTION

2.1 Operational Overview of FarmWorks CEDIF

Nova Scotians purchase shares in FarmWorks Community Economic Development Investment Fund which lends capital to a diversified portfolio of businesses that yield meaningful financial and social returns. Loans are made to entrepreneurs who start or operate farms, value-added food, distribution, retail and restaurant businesses. By supporting food-related businesses FarmWorks aims to help increase the viability and sustainability of agriculture and the security of a healthy food supply for all.

Shares in FarmWorks are sold through Public Offers overseen by the Nova Scotia Securities Commission and the NS Department of Finance^{iv}. During the 90-day period while offers are open all documents are available on the FarmWorks website and from Directors and at information sessions held across the Province. Each share is worth \$100 and the minimum purchase is one share. The average annual investment by shareholders increased from 22 in the first to 34 shares in the sixth offer. Between January 2012 and the close of the 2016 offer there were 457 investments by 300 Nova Scotians (includes multiple investments by individuals) in one to five offers.

YEAR	INVESTMENT CAPITAL RAISED	NUMBER OF INVESTMENTS	NUMBER OF NEW LOANS PROVIDED	VALUE OF ALL LOANS PROVIDED IN THAT YEAR
2012	\$224,200	102	8	\$155,000
2013	\$225,300	78	12	\$295,000
2014	\$271,500	78	10	\$290,000
2015	\$312,400	86	17	\$445,000
2016	\$372,400	112	16	\$365,000

Share purchases are non-refundable for five years, are eligible for a 35% Nova Scotia non-refundable Equity Tax Credit that can be carried forward 7 years and backward 3 years, and are eligible for further Equity Tax Credits of 20% and 10% at the 5 and 10-year investment anniversaries, respectively, provided the CEDIF meets Department of Finance conditions. CEDIF shares are eligible RRSP investments^v.

FarmWorks is operated by a 14-member volunteer Board of Directors elected by the Shareholders. FarmWorks Directors provide mentoring and promotion and closely monitor clients to help safeguard these non-collateralized loans. About 50% of the clients are farmers and food producers and 50% of the clients are food retailers and restaurants.

FarmWorks provides loans to qualifying agricultural and food-related businesses in Nova Scotia to help them increase sustainable production and profitability through value-adding, marketing and related activities. Businesses seeking funding send a preliminary application to FarmWorks. If the business fits with FarmWorks principles and objectives, the applicant is asked to submit a business plan including current financial information and projections. Directors and Advisors evaluate the plan, meet with the applicants and visit the site, and complete a Comprehensive Review. Successful applicants repay loans within two to five-year terms at an interest rate, currently 6%, that reflects both the unsecured nature of the loan and the patience of investors willing to accept moderate returns on investment. As repayments to FarmWorks are made, money is loaned to other qualifying enterprises. Guidelines for measuring and reporting outcomes are in place for enterprises receiving loans and for the Board.

2.2 Report Background and Overview

In Nova Scotia food-related businesses are facing crises and opportunities. Food production in the province is a key to economic development and provides multiple benefits but the challenges posed by global and commodity production together with increasingly stringent regulations and lack of support can be overwhelming. As the portfolio of businesses grows, it is necessary to understand the role and impact on these businesses of the loans and support provided by FarmWorks to these enterprises.

In the United States extensive research has been carried out on the role of local food businesses in local economies. These benefits include:

- Job creation – e.g., in Iowa it costs almost \$69,000 of public investment to create one full-time-equivalent retail job, and only \$18,000 to create a job in local food^{vi}
- Economic “multiplier” factors – local businesses tend to spend locally when purchasing inputs and services, resulting in significant economic contributions beyond the revenue they generate - one study found that local food hubs in the United States have a “a gross output multiplier of 1.82, indicating that for every dollar of final demand for food hub products, an additional \$0.82 is generated in related industrial sectors.”^{vii} Scale makes a difference as the multiplier factor for *small* farms in the United States can be as high as 2.6 – compared to large farm multiplier factor of 1.4^{viii}.

Social benefits of locally-focused food businesses include increased “social capital” which facilitates peer-to-peer knowledge sharing. Local, sustainable food can also serve community development in helping build the sense of community, promoting a place (e.g., tourism branding) and creating an avenue for “reclaiming sustainable rural spaces”.^{ix} Local food systems have the potential to improve both human and environmental health through shortening the supply chain and the manner in which they change social relations and how we understand accountability.^x Finally, small, locally-focused food businesses are associated with improved food security and can potentially contribute to community *resilience* as opposed to *dependence* on far-flung suppliers.

In 2013, after less than two years in operation, FarmWorks clients were surveyed regarding their contributions to the Nova Scotian economy and to their communities throughout the province. Results from the survey quantified the relative amounts of capital provided to businesses, the number of jobs created and the support FarmWorks was providing to clients. The results indicated that FarmWorks support was making a significant difference in business outcomes^{xi}. Plans were made for a follow-up survey be carried out to determine outcomes after five years.

In 2015, FarmWorks founding Director, Linda Best, was a keynote speaker at the SIBAC *Keeping it Rural 2015* Conference in Salmon Arm, British Columbia^{xii}. The Southern Interior Beetle Action Coalition/BC Rural Centre has been actively researching successful community investment models and partnered with FarmWorks to complete this updated survey of FarmWorks clients. A companion report was prepared by the BC Rural Centre based on the survey results.

3. METHODOLOGY

3.1 Data Collection

Of 63 FarmWorks clients at the end of 2016, three have paid out their loans, five have changed their businesses but continue to pay their loans, two loans have been written off and five were less than six months old. As a result, 48 FarmWorks clients were invited to participate in the survey. These clients were contacted by email with information about the purpose and relevance of the survey and then were contacted personally to further explain the survey project and to determine whether they would like to complete the survey by telephone or online through Google Forms. Clients were assured that all information would be confidential with no identifying information associated with the survey responses. All clients chose to complete the survey online citing time constraints and the desire for confidentiality. Clients were surveyed regarding their quality of life, financial stability, income and expenditures, job creation, challenges and obstacles and overall social and economic impacts. Recognizing that many clients might be hesitant to provide specific exact revenue, expenditure and payroll figures – the survey questions provided ranges (e.g. \$100,000 to \$150,000) for responses.

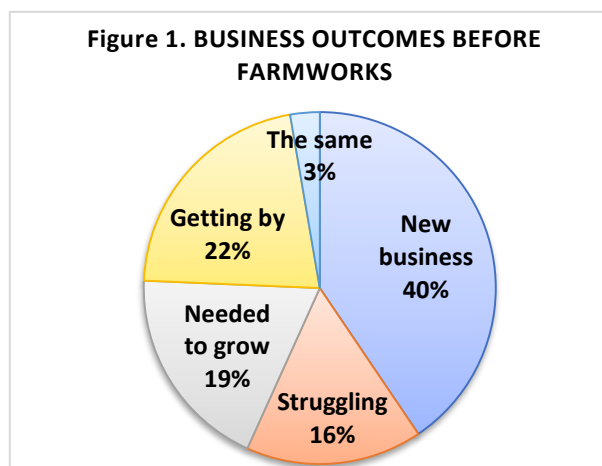
3.2 Data Analysis

Thirty-eight of the 48 FarmWorks clients approached participated in the survey – a response rate of 79%. For the quantitative analysis of multiple choice responses to income and expenditure questions, the Google Forms software groups and displays the data visually in pie charts for interpretation. This software automatically groups all responses together without identifying information. For qualitative analysis of long answer questions, themes were identified in the written responses and reported on accordingly with no identifying information. The quantitative and qualitative analysis of the survey data help us to understand the cumulative social and economic impacts of businesses FarmWorks has supported over the past five years.

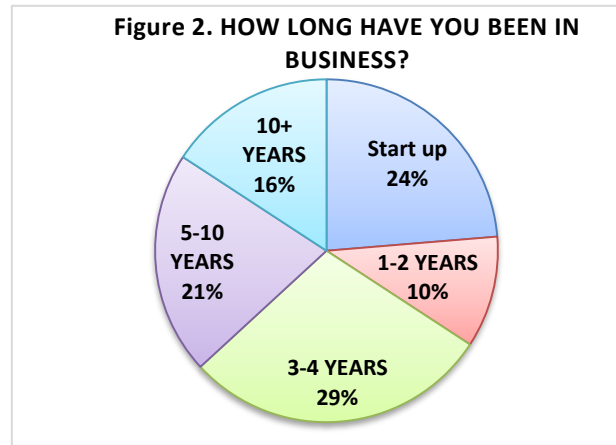
4. RESULTS

4.1 Importance of FarmWorks Financing and Support

Survey results show that the majority of businesses credited their success to the support of FarmWorks. Some 40% of clients reported that without FarmWorks their businesses would not exist, and 35% were struggling or needed to grow (Figure 1). One client explained that their business “...was stuck in the rut of needing to expand production to grow to a sustainable level, but not having the funds to make the initial investment toward that growth”.

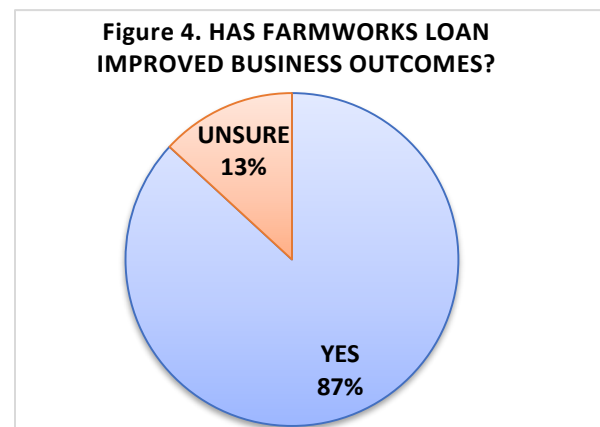
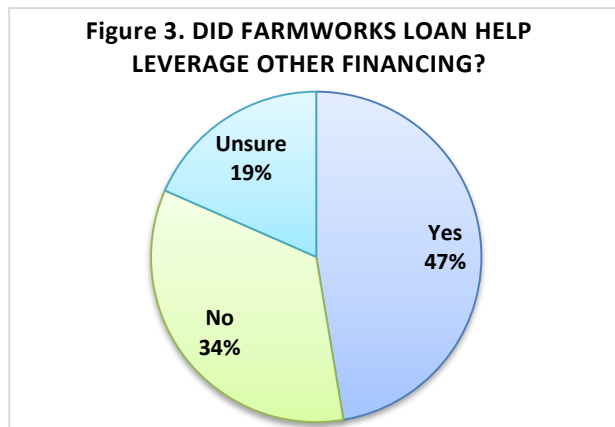


At the end of 2016 twenty-four percent of the 38 respondents were still in their start-ups phase, 10% had been operating for one to two years, 29% for three to five years, 21% for five to ten years, and 16% for more than ten years (Figure 2).

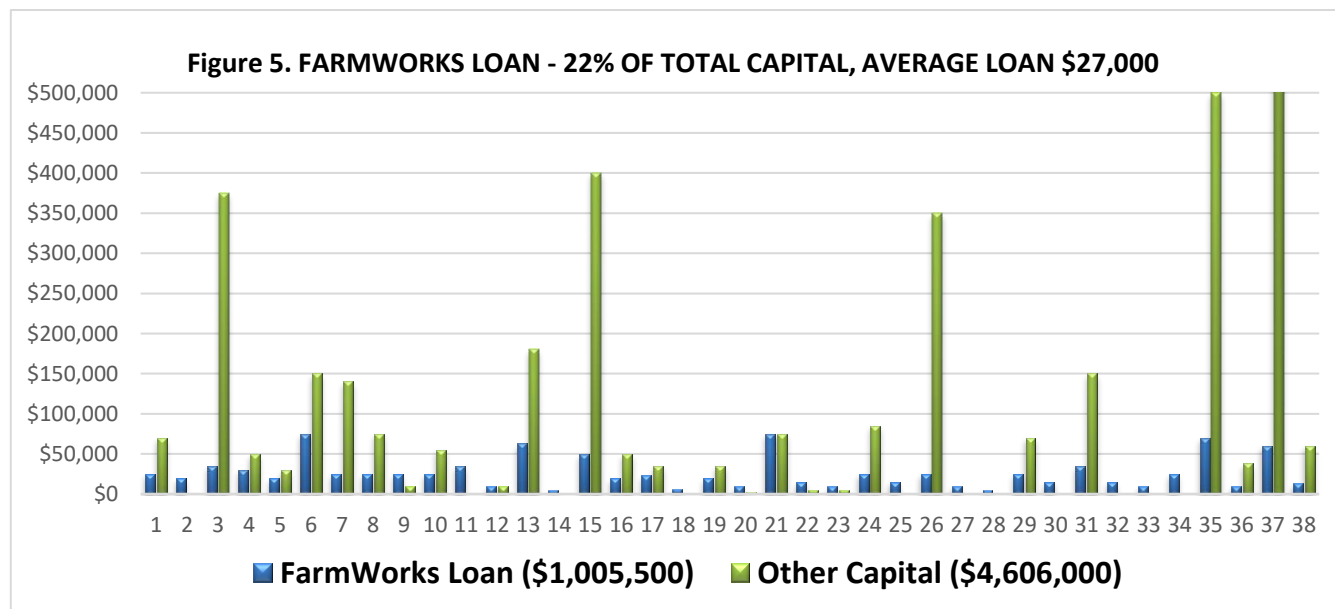


FarmWorks loans either helped leverage other loans or was the sole source of capital or provided capital when the business was unable to access loans from other lending agencies (Figure 3).

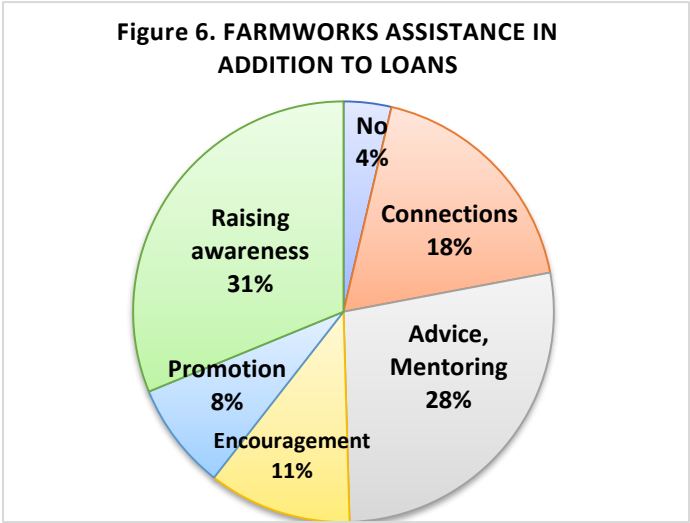
A further 87% of clients indicated that capital from FarmWorks has improved their overall business outcomes (Figure 4). One client noted that lower interest rates helped business outcomes, noting that FarmWorks capital “[allowed] us to pay down some existing high interest debt so that we are bringing down back-debt faster”.



FarmWorks loans averaged \$27,000 and comprised 22% of the capital required for start-up or expansion (Figure 5).



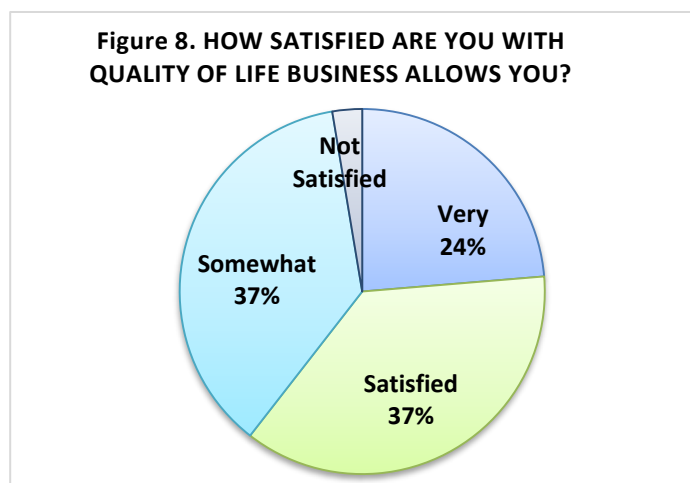
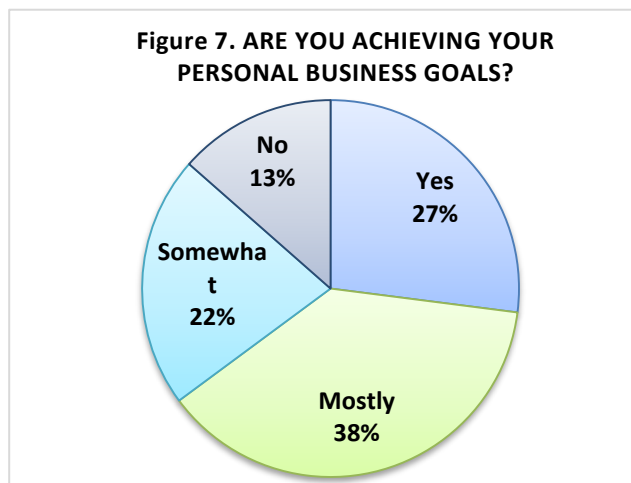
Almost all the clients surveyed indicated that FarmWorks provided more assistance than just loans (Figure 6). This additional assistance came in the form of business advice, mentorship, networking opportunities at FarmWorks events, encouragement and business promotion through social media and positive word-of-mouth. Clients note that *“FarmWorks has gone above and beyond the call of duty by providing support in numerous ways including expertise, emotional support and a positive attitude”*; *“FarmWorks has been*



fantastic with networking opportunities, sales connections, and moral support as they truly believe in the need for local industries”; *“FarmWorks leaders work hard to stay in touch with me and my business. They have supported me when I needed some direction with suppliers or businesses”*; *“Advice, contact, promotion ... the most genuine and sincere interest in helping us succeed. It's their selfless acts, positive energy, stamina and most importantly they believe in us”*; *“Supplies and equipment we purchased with FarmWorks money allowed us to grow and take advantage of opportunities that would not have been there otherwise”*.

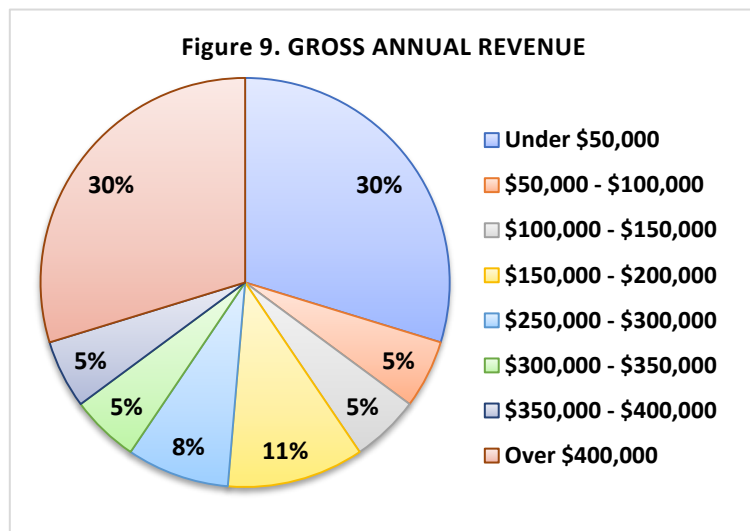
These comments indicate that the CEDIF program assists businesses holistically, providing business mentorship and connections to help ensure a greater return on loan investments through contributing to client success. The legislation enabling the CEDIF program requires that loans be for subordinate debt. Since no security for the loan is taken, support and relationships formed with clients are the available insurance against loan loss.

Sixty-three percent of 37 respondents indicated that they are achieving, or mostly achieving, their personal business goals (Figure 7) and 61% of 38 are satisfied with the quality of life the business allows them (Figure 8).



4.2 FarmWorks Clients' Business Revenues

Survey results indicate a diversity of business sizes, with 30% of businesses earning under \$50,000 and 30% of businesses earning over \$400,000 (Figure 9). Using a conservative calculation based on the survey responses (Note 1) the 38 responding businesses had gross 2016 revenue in excess of \$8,000,000. Three of the respondents separately indicated that their revenues exceeded \$ 1,000,000 so the annual gross 2016 revenues potentially exceeded \$10,000,000.



4.3 FarmWorks Clients Business Expenses

With the diversity in the size of FarmWorks clients' businesses there is a considerable range in the estimated annual business expenditures (Figure 10). Using a very conservative calculation (Note 2) the 34 businesses that responded paid in excess of \$6,800,000 in expenses in 2016. The annual expenses of the three respondents with revenues exceeding \$ 1,000,000 could have increased expenses to \$8,000,000.

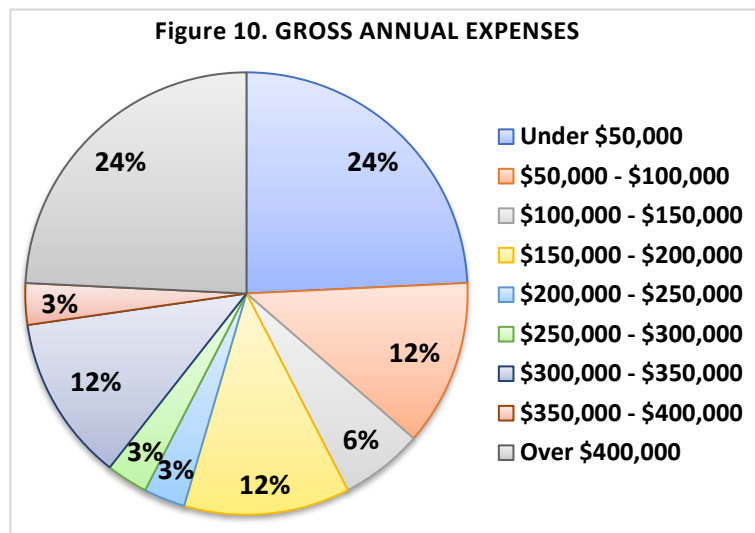
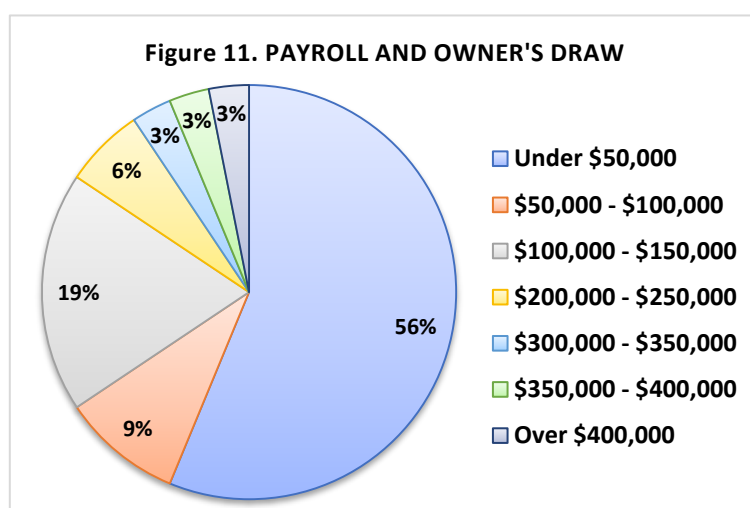
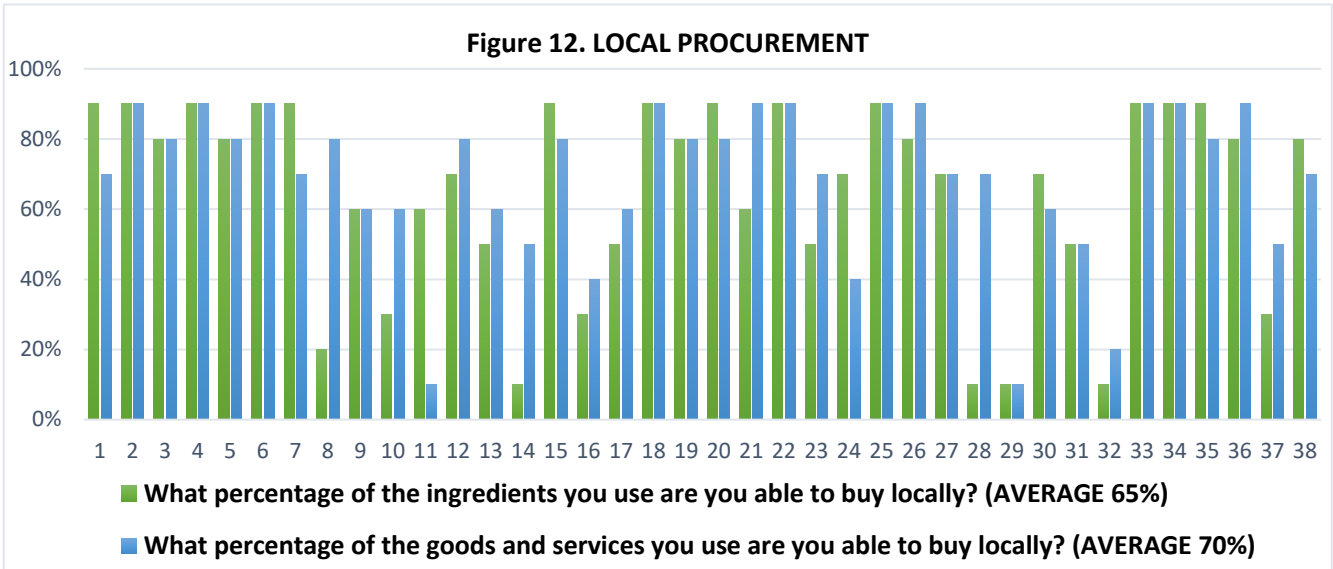


Figure 11 shows the responses when clients were asked to estimate their total annual payroll and Owners Draws over the past 12 months. When using the same conservative estimate calculations (see Note 3) it is projected that the 32 responding FarmWorks businesses paid well in excess of \$2,650,000 annually in total payroll and owner remuneration.



FarmWorks clients source significant amounts of goods and services from within the province, which means that a large percent of the gross annual business expenditures are invested back into other Nova Scotia businesses. Indeed, 75% of clients reported that they're able to source over 65% of their ingredients and 70% of their goods and services within NS (Figure 12).

Figure 12. LOCAL PROCUREMENT

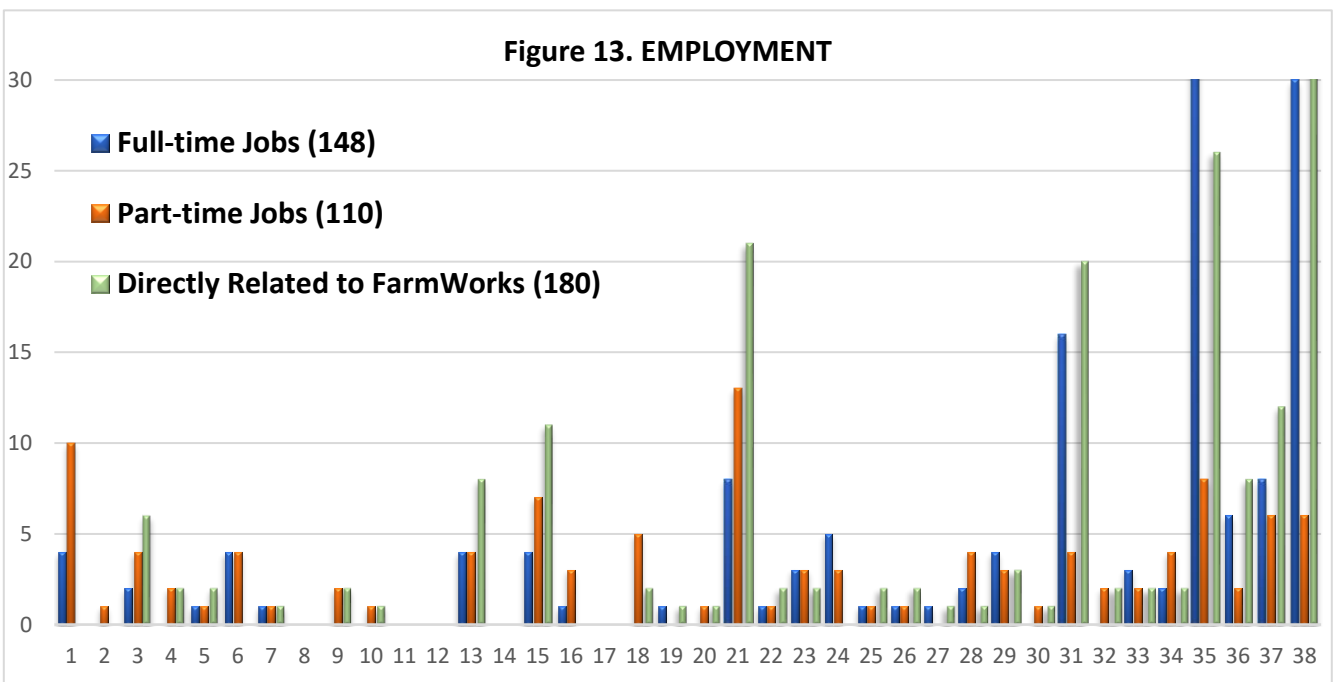


With a minimum of \$6,800,000 in total gross annual expenditures, FarmWorks clients contribute significantly to Nova Scotia’s farm and food sectors and to the whole of the economy. FarmWorks clients are creating direct employment in their businesses and indirect jobs in other businesses that service food producers.

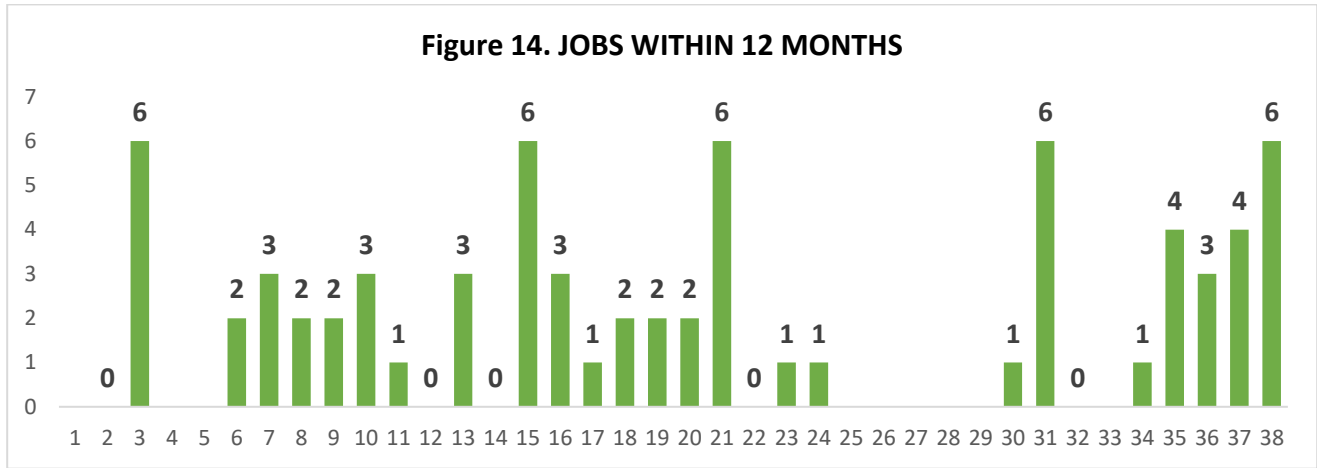
4.4 Job Creation

By the end of 2016 36 FarmWorks clients employed 258 people, 148 full-time and 110 part-time. This is a substantial contribution to food and farm related jobs in the province. Clients reported that 180 of the current jobs were a direct or indirect result of the capital they borrowed from FarmWorks (Figure 13). This means that 70% of the jobs created by clients result from Shareholder investments into FarmWorks CEDIF.

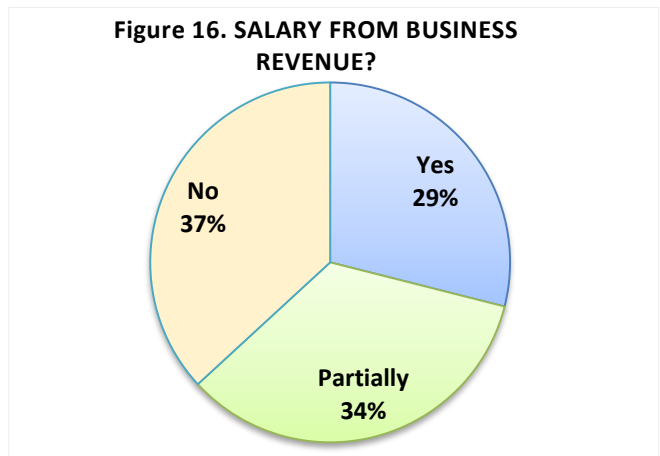
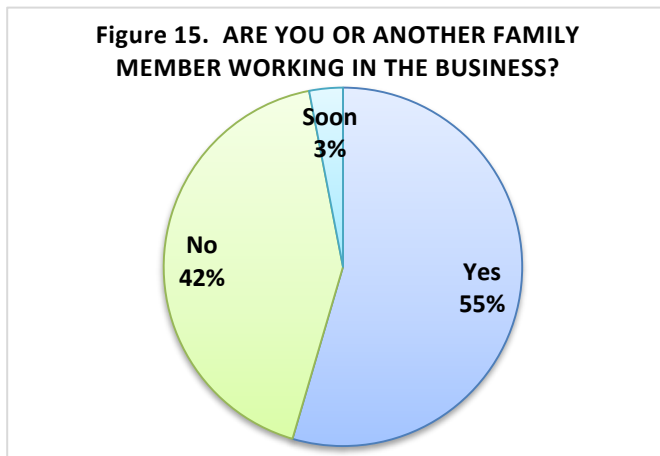
Figure 13. EMPLOYMENT



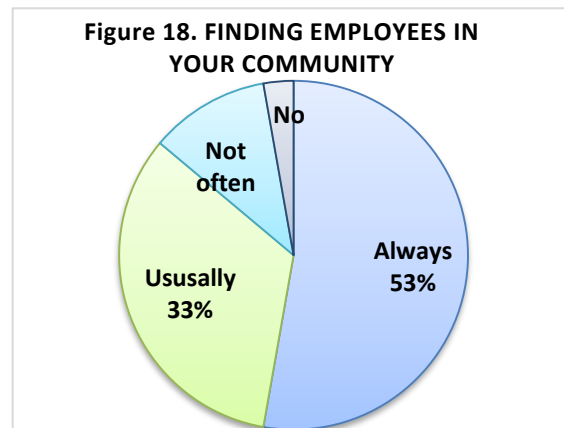
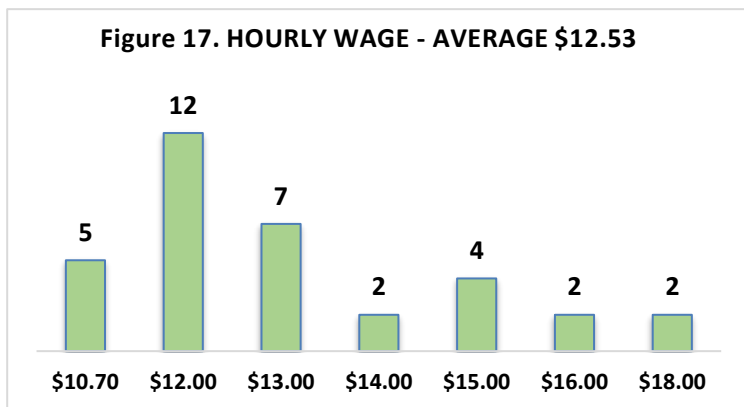
Clients also predicted that they would be creating 70 additional jobs in the next 12 months (Figure 14).



Of 33 respondents, 55% indicated that the FarmWorks loan enabled the client or another member of their family to work in the business (Figure 15). This indicates that the CEDIF program plays an important role in supporting small, family owned businesses. Of 38 respondents 29% were drawing a salary and 33% a partial salary (Figure 16).

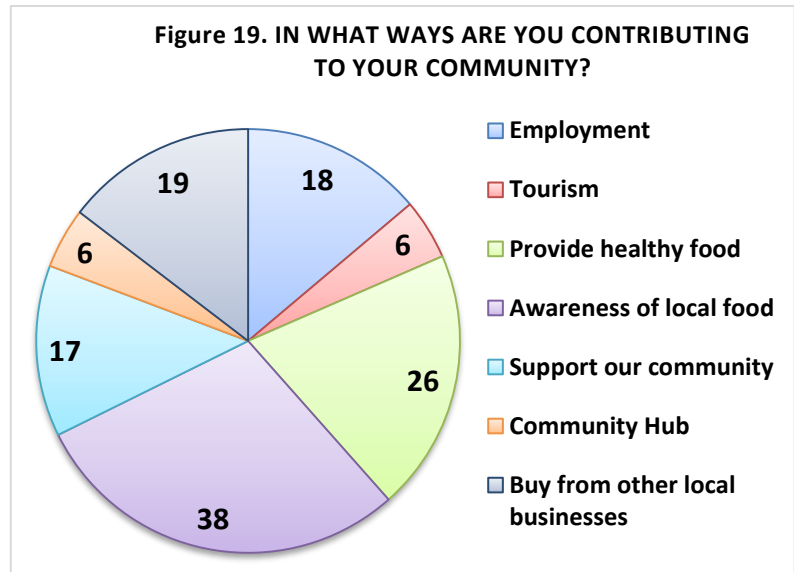


Using conservative projection calculations (Note 3) FarmWorks businesses pay in excess of \$2,650,000 annually in total payroll and owner remuneration (Figure 11). Hourly wages ranged from minimum wage to \$18 with an average of \$12.53 and it was noted that serving staff make significant additional income from tips (Figure 17). Notably, 86% of the businesses were able to find employees in their community (Figure 18).



4.5 Social and Health Impacts

Small businesses play an important role in the social fabric of rural and urban communities. Family owned businesses provide a sense of ownership and pride-of-place in communities that may otherwise be dominated by non-place specific corporations. When surveyed about their perceived contributions to their own local communities, FarmWorks clients cited a multitude of services and benefits over and above job creation and income (Figure 19). Especially in rural communities with



smaller populations, having central locations where community members can gather informally is very important in preventing social isolation and improving quality of life. One client explains that “[t]he business has... become an integral part of the community; a local meeting place where people meet friends and neighbours and interact. [Our business] has strengthened the community”. Because food is traditionally associated with family, friends and socializing, small food related businesses have an especially important role to play in the revitalization of rural communities. In urban areas, FarmWorks clients are also providing new and innovative spaces to gather around food. Numerous businesses supported by FarmWorks have been recipients of Halifax-based culinary awards and have become trendy “hot spots” for people to gather around local food and drink.

Providing healthy food was the other major theme that arose when clients were surveyed as to their perceived contributions to their communities. Over and above providing farm-markets, farms, retail stores and restaurants for people to work and socialize in, FarmWorks clients were proud to supply their customers with fresh, locally grown food. As public awareness grows, there has been a marked trend towards investing in preventative health measures, such as improved diets and overall healthy lifestyle choices. FarmWorks clients are contributing to both public awareness and to the availability of healthy food. One client explained that their businesses is “...providing a healthy place to eat, providing a safe and friendly space for anyone to come enjoy, promoting and raising awareness about food sustainability issues locally and globally, and redefining what it means to eat healthy”.

4.6 Regulatory Constraints and Barriers

A number of clients (71%) highlighted challenges and barriers with regards to compliance with provincial and federal regulations (Figure 20). No client takes issue with the absolute necessity for safe food and facilities but regulatory burdens, together with loss of infrastructure are affecting output.

Many clients cited the impact of increasingly rigorous application of food safety regulations on their businesses. They indicated that regulations are becoming prohibitive at the scale of smaller businesses that do not have the capacity for mass production. In other words, there are standard regulations for

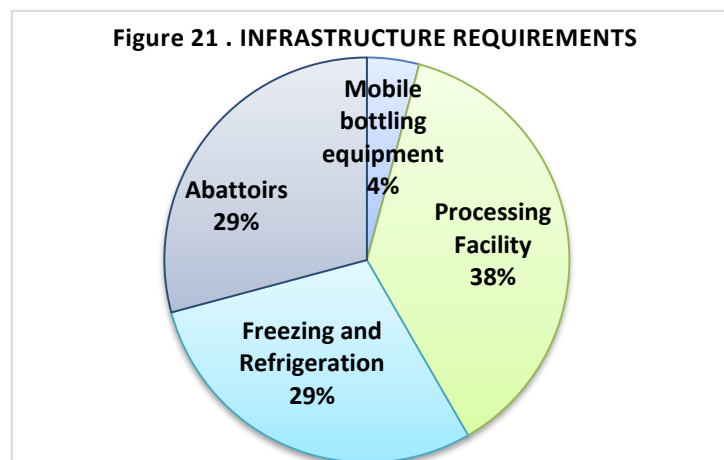
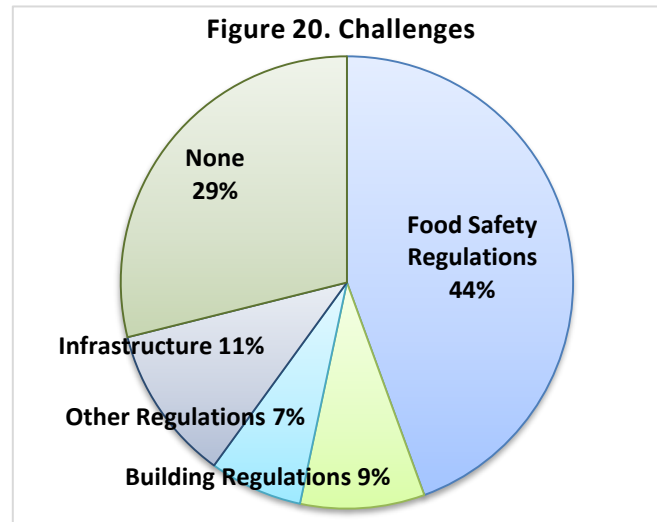
businesses regardless of size and capacity. As one client explains, *“...this eliminates the ability to produce many artisan products, even though consumers are accepting of shorter shelf lives that regulations can't adjust for.”*

Obtaining permits for off-site community food events was cited as another regulatory challenge. For those obtaining off-site permits, the turnaround time is slow due to bureaucratic processes and is costly for smaller businesses. There is no question that for events and markets food must be prepared in a food safety certified kitchen but increasingly rigorous specifics are decreasing the number of such facilities. A client stated, *“...it can become costly getting social event permits for many different events even if we are preparing all the food in our certified kitchen facility.”*

Building regulations, particularly pertaining to change of use, present major challenges in some locations. Again, every business seeks to accommodate customers, but there is little assistance for businesses that need to make changes. Issues include short timelines and lack of clarity and assistance with planning for changes. The possibility of financial grants or loans to assist with Installation of wheelchair accessible bathrooms was raised. It was noted that clients who rent retail space must get permission from building owners to alter entrances as well as washroom spaces, that regulations stipulate that if ramps are installed, other requirements for accessibility must be met, including washroom and parking lot size. This was described as another “one size fits all” government regulation creating challenges for some businesses with limited space and financial capacity.

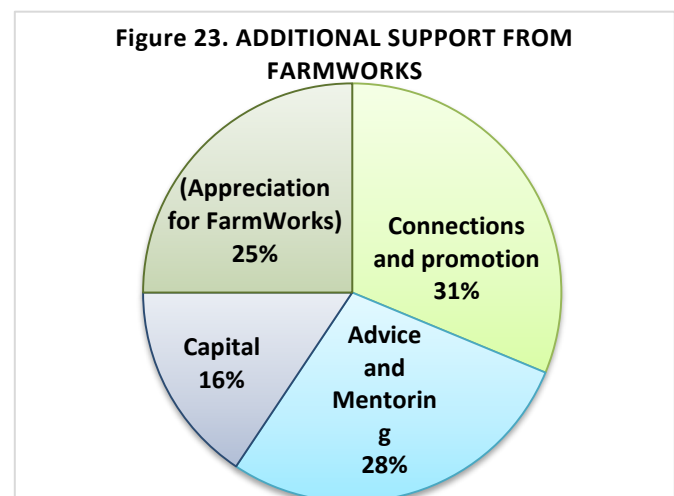
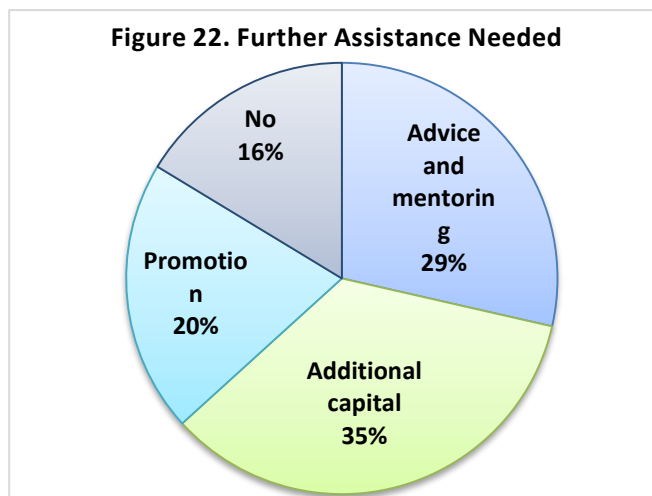
There are significant infrastructure deficits and remedies are becoming more urgent (Figure 21). Seven clients said that their business is negatively affected by the lack of abattoirs, 7 need access to shared freezing and refrigeration, and 9 stated that their business would benefit from access to shared processing facilities that would enable them to meet food safety regulations.

Making changes to meet regulations may require large amounts of capital that may not be available to entrepreneurs, especially early stage, with limited resources and cash flow. Several of FarmWorks most successful clients have fallen into this category, with financing from FarmWorks making possible the upgrades or modifications required for continuation and growth of the business.



4.6 Planning and Perspective

Respondents described their current and longer-term requirements (Figures 22 and 23). Most clients are addressing the challenges and looking to the future: *“Always in need of advice, and in about a year to two years I will seek additional financing support”* and *“hopefully not financial, but mentoring, advice and promotion are always useful”*. The need for advice and mentoring was clearly described and it was apparent that respondents look to FarmWorks for that and for connections both with Directors and with other FarmWorks clients: *“We would love to connect with more local food producers who are scaled up and ready to service the restaurant market in the city”*. While FarmWorks loans comprised 22% of capital at the time of the survey, future plans indicate that at least half of the capital will be sought from FarmWorks. In responses shown in Figures 6 and 18, appreciation was expressed for FarmWorks support for businesses: *“Continued advice and emotional support”* and *“I think that FarmWorks is providing a great role in our community, from offering advice and mentorship, financing, and an opportunity to connect with other farmers and interested individuals through the events that they host!”*



Respondents contributed thoughtfully to the question: How do we achieve the community of interest needed to support entrepreneurs generally, and food entrepreneurs particularly, in rural Nova Scotia? Many indicated that education – about the qualities and benefits of local products, and of purchasing these products – is crucial for future success. And education needs to start with children – that’s a key to better health for future generations. Clients said that local businesses should support and promote one another, collaborate and celebrate what is being accomplished. Several Clients indicated that they would welcome opportunities to increase their business knowledge.

FarmWorks is a looked-for participant in these solutions:

“I think that what you are doing is amazing. I often hear of the Gentle Dragon events, and the value that they bring to entrepreneurs, and the awareness that they bring is also very valuable! I think the events that you host as well in the spring in and the fall bring awareness. Whenever we have the opportunity, I think that entrepreneurs should boast about the support that we receive and where we receive it. Too often I see an article on a start-up entrepreneur and they do not mention the support that they received early on, and I think that it is very important that they do, so that others can be aware of it!”

“FarmWorks is going in the right direction by trying to help businesses all over NS by supporting them, promoting them, doing advertising and when it comes down to rural areas – local shops. Hard in rural areas, lots of people moving out but the wheel is starting to change. Making restaurants and shops that are linked to the farms. Push people to buy local. An effort from everyone to support our farmers.”

“Man, oh man. I believe it will come down to dollars. ... encouraging local is a culture shift.

- Because “Walmart” can “buy” their customer and “bully” community and convince them that they have the best for cheapest we need to compete there. Why not tax breaks for those who buy local?

- Suppliers have to get on board. It is actually difficult and a lot of work to buy from really local suppliers at times. Fact- the local producer has to be great to compete. Some people will buy into the story but lots buy on price, let’s be honest. Customers don’t want to pay for producers’ inefficiencies. It is a big bad business world out there! May sound harsh but every wasted minute is wasted opportunity and profits!

- Just singing the song isn’t enough we need to get out there and prove it. Let’s get into schools and help children to understand that they can actually produce their own food. Fun and way better.

- Let’s start making the links between health and food in a tangible way...with the kids

- With NS being so small not a great place to be a pilot project to demonstrate the link between health and food? Government wake up and put some \$\$\$\$ into food and watch the health budget shift. Not rocket science. But all at the grassroots level. ”

“Some thoughts - continuing to promote the importance of food security and sustainability locally, providing information on how to access said food, creating a BUY LOCAL campaign with maybe a list of local businesses that support local...”

“Keep doing what you are doing. Success breeds success and everyone wants to be on a winning team...including the government. Continue giving the support needed to encourage those with ideas whether financially or just that pat on the back when it is deserved!”

A final question – What are your thoughts on Nova Scotia’s ability to be more self-sufficient in terms of food production? – also elicited useful and illuminating commentary from respondents.

“We have a long way to go, but are moving in the right direction. We need more support of younger and new farmers. Many programs are set up to support existing farmers, or second-generation farmers, but less for new.”

“It is entirely possible, but it requires prioritizing this as the most desirable outcome by business, consumers and the government. If people perceive local food self-sufficiency as just costing them money and convenience in the short term with no offsetting short term benefit that aligns with their real values (such as saving money or access to better quality products), it will be hard to convince them that the long-term benefit is worth it (or even likely).”

“We as a province were mainly self-sufficient in the past so can be again in the future though re-educating people about the social, economic and environmental benefits of eating with the seasons.”

“We can be much more self-sufficient and with the situations developing throughout the world we should be trying to be more self-reliant as quickly as we can. It is disappointing to hear that in mid-March we must be purchasing carrots from PEI and by May we will be buying Israeli carrots.

Something as simple as carrots and potatoes we need to import is simply unbelievable. I think that people should be made aware of these situations. Milk production being "owned" by a giant business in Quebec...what is wrong with this picture? We have the resources, people and some infrastructure required... soften the rules and regulations for local food production and watch it grow. Only recently a situation has come to light that a large seafood facility may have to rethink their production plans when the Trump "Buy America" comes into effect. The product that they are producing for the American market doesn't meet the stricter food safety rules of Canada, and in light of this, product which is being produced would have to be destroyed instead of being sold here. Does this make sense? I don't think so!"

"I think it is the only way forward. Our small size is not a deterrent but our biggest asset. We need to stop focusing on export and focus on keeping food and production here. We need tax breaks and reasonable and attainable small business financing from the government and we can create jobs and income for the province."

"Larger institutions need to get on board with this. It's great when small businesses are working to support local food production but we need the big players on board too. For example, universities could be integrating food production on campuses with food service for students and food courses (check out what Brock university is doing with campus gardens!), same goes for other institutions. All of this requires that we start to relearn the basics of how to process whole ingredients and cook without processed ones. Wouldn't it be amazing if all schools had gardens and taught food production and preparation as part of the NS curriculum?"

"I think awareness is slowly building that we were far more self-reliant in the past and we need to be so again. It's a sentiment we hear expressed more and more at the farmers markets and the people who actively engage in supporting local food producers say they feel like they have stronger community ties."

"I think Nova Scotia could be much more self-sufficient in terms of food production. I think legislation should be introduced that requires government institutions and other large organizations to buy food locally whenever possible. This would of course increase costs, which would increase taxes, but that money would go directly back into the pockets of Nova Scotians. This, as well as more consumer education when it comes to the importance of buying food locally would go a long way."

"I think we have the ability to do this, we just need to work together to continue to create awareness and make it accessible. We need to work towards local sustainability, more distribution within our communities and less imports. We will always have to import some items, but if we can reduce importing things that we can grow locally, it will have a huge impact! Buying local, allows us to eat fruit and vegetables closer to the time that they are actually pulled from the ground, allowing us to benefit from the nutrients that they have!"

"No brainer. We need to get out of our own way and hustle. We chose to live in NS and are delighted with our choice. My thoughts are based on what I have seen so far. I have found an enormous amount of disjointed \$\$\$\$ allocated to a variety of projects. How about we start pulling our efforts

together...like what FarmWorks is doing. Come on NS this is the best place in Canada to live with potential up the yin yang. What are we waiting for?!!! If buying local is the best way to go let's exchange the kid gloves for boxing gloves and make that so...cause we know it is!! Imagine being the example to show Canada. Health is everything: personal, community, global. That starts with food!"

"Nova Scotia has a tremendous amount of potential to be more self-sufficient. There are so many ways to have creative entrepreneurship with just what can be grown or created in NS, not to mention all the other supportive businesses that go along with that. There are so many things that people want in NS, and have to get from outside the province, we could be doing/creating those things right here."

"We think that NS has a ton of potential when it comes to producing more food for its' residents. It's important that restaurants, grocers and institutions take extra steps to ensure that they are buying local whenever possible. It's also important that local food producers find a way to get their products to market in an efficient and reliable way. This would likely involve even more collaboration when it comes to distribution. Consumer education is also an important component of increased demand in restaurants and at retail."

"Realize that the overall goal is producing local not just harvesting local. The best example of what can be accomplished is in the explosion of craft breweries. Why can't this be expanded to include any food product that is available at grocery stores? Global warming needs to be addressed globally. Imports need to be addressed locally. A good example in my opinion is "Dijon Mustard" from France. Dijon is a little town that added white wine to mustard and people loved it. Initially all the mustard was grown locally and the mustard produced locally. But, it would not be a table staple globally without the government backing that took it to the world's stage. Today Dijon cannot grow enough mustard to fill the need to produce the amounts required for global exporting. So, today 90 % of the mustard seed used to make Dijon mustard comes from Canada. It is still seen as a French product. Good for them I say. There is no reason the same can't be done for a N.S. product."

"100% possible. With more technology and innovation and new ways of growing things we can become much more self-sufficient. We have so much land, access to information. Also, we need to be able to keep and attract people here - having food / drink / culture / music / arts does that! Sustainable food production needs to be first priority ... and customers paying a little for it so at the end of the day we can create higher quality of life!"

"Continued public awareness and programs like FarmWorks that see the bigger picture."

"Love FarmWorks and what they do and the way that they do it. Fantastic thing to get started. Keep supporting businesses."

5. DISCUSSION

Clearly, FarmWorks has attracted as clients some of the most intelligent, energetic, enthusiastic and motivated entrepreneurs to be found in the Province. The aim of this survey is dissemination of information about outcomes achieved by small and mid-size businesses, especially those providing food. An unexpected outcome is a treasure-trove of suggestions from some of the people best-placed to identify solutions – those who are in the business of resolving challenges and producing goods.

These businesses have made tremendous contributions to rural and urban economies through job creation, purchasing and providing local goods and services, raising awareness of the benefits of local businesses, supporting their communities and investing in a sustainable future.

This report describes the results achieved by clients who have received “money, mentoring and marketing” support from FarmWorks. The outcomes provide indisputable proof that providing capital and assistance to qualified entrepreneurs multiplies economic and social benefits.

Economic multiplier effects range widely, as noted in the introduction, and the approximate \$8,000,000 gross annual revenue could generate from \$11,200,000 (multiplier 1.4) to \$20,800,000 (2.6) in the provincial economy – a significant return on \$1,005,000 of shareholders’ investments in FarmWorks. Conservative calculations did not account for several businesses with gross annual revenues of over \$400,000, and if revenues reported by 38 clients are extended to 48 clients it can be presumed that gross annual revenue may exceed \$10,000,000. Similarly, gross annual expenses may exceed the reported \$6,800,000.

Clients indicated that 65% of ingredients and 70% of goods and services were procured in Nova Scotia for direct expenditure of at least \$5,000,000 – which in turn provided additional multipliers before the capital leaked out of the local economy (see publications).

Clients reported that at least 40% of their start-up businesses would not exist without FarmWorks’ investment, 35% were struggling or needed to grow prior to receiving support and 87% said that capital from FarmWorks has improved their overall business outcomes.

They reported that they have already created 148 full-time and 110 part-time jobs, that 180 (70%) are directly or indirectly a result of their FarmWorks capital, and that they expect to add 70 jobs in 2017. Owners hired 86% of their employees locally and 85% were paid above minimum wage. Since 55% indicated that FarmWorks enabled family members to work in the business it is expected that family involvement will increase over time: this is evident when visiting many of the clients.

A number of clients (61%) described challenges and barriers with regards to compliance with provincial and federal regulations, especially food safety regulations (44%), and several indicated that this is a limiting factor for growth: *“We are having trouble accessing a commercial kitchen needed to produce schedule A foods for our farmers market.”* and *“Government pays lip service to business saying that it is there to help (with meeting regulations) but has no money to assist and much of the time no expertise either.”*

In the past, when significantly more food was being produced in Nova Scotia, more infrastructure and support was available. The percentage of the budget applied to Agriculture has decreased from 0.9% in 1996 to 0.6% in 2016^{xiii}. The loss of many abattoirs and processing facilities and the level of regulations being applied across the board are significantly affecting local producers' ability to meet demand. There were 22 clients who cited the need for abattoirs, processing, freezing and refrigeration and other facilities that would enable them to increase production. Remedies are becoming ever more urgent with the shift by the public to greater appreciation for, and trust in, local production.

In the U.S. while net farm income is declining, sales of food produced locally are growing at a higher percentage than other food and beverage sectors – from \$5 billion in 2008 to an expected \$20 billion in 2018. *“Everyone needs food—and we can tell you something that American consumers want with increasing fervency: local food. They want to know where their food comes from, how it was made and by whom. They want the transparency that is required to know its source. They’re even willing to pay a little more for the confidence that their food purchases help to create jobs and promote local economies; safeguard the environment, protect groundwater and preserve American farmland; and support proper animal treatment. As a result, there’s a huge investment and business opportunity sitting right under everyone’s noses”^{xiv}.*

FarmWorks clients described a multitude of services and benefits provided by their businesses: creating jobs and generating income; purchasing and supporting other local businesses; providing healthy food and raising awareness of the benefits of local food; supporting community and in some instances becoming a de facto hub or gathering place; adding to local amenities that attract residents and tourists. Many FarmWorks clients are at the forefront in their sectors as outstanding food and beverage producers, retailers and restaurateurs. Shareholders' investments will continue to improve the long-term outlook for sustainable food production and healthier food for the future.

FarmWorks occupies a unique space where relationship lending brings many people to the table: investors, directors, clients, other food-related businesses, other lenders, organizations and the public. The Directors and Advisors are volunteers representing a wide range of businesses, skills and interests who work with potential and current loan recipients. The recipients are multi-skilled, enthusiastic, energetic and collegial contributors to their businesses and the economy of the Province. The Shareholders are interested, involved and supportive. Everyone who purchases a \$100 share in FarmWorks becomes a promoter, not only of FarmWorks clients, but of other food producers and other local businesses.

From a provincial government perspective, the Nova Scotian CEDIF program as operated by FarmWorks can be seen as a successful public policy instrument. CEDIFs provide individuals with the opportunity to invest in businesses in their own province rather than supporting businesses in other jurisdictions (for example, in 2014 of the \$730 million invested in RRSPs by 123,000 Nova Scotians about 98% left Nova Scotia)^{xv, xvi}.

Through tax advantages, by raising the money from the communities that will benefit, CEDIFs provide an opportunity to address the lack of incentives for investment in local projects in Nova Scotia. CEDIFs are meant to stimulate economic growth, provide new employment opportunities and rejuvenate

existing economic sectors in the province of by enhancing access to financing for local businesses. Since inception, the CEDIF program has grown to support more than 80 CEDIFs with over 8,500 Nova Scotians investing more than \$80 million in small- to medium-sized local companies, fueling economic growth throughout the province. It is evident from the survey results that the FarmWorks CEDIF is creating many new businesses in Nova Scotia that simply would not exist without the CEDIF funding option.

Government taxation revenue resulting from CEDIF supported businesses' revenues, expenditures and payroll will far exceed the province's foregone revenue from the CEDIF investor tax credit. If all the FarmWorks CEDIF investors in these businesses leave their investments in for a full 15-year period the total provincial foregone tax credits would be \$653,250 (\$1,005,000 X 65%). In exchange, these FarmWorks clients will have created and maintained more than the initial 180 jobs directly credited to the FarmWorks loan. The multiplier effects of the annual gross revenue of \$8 + Million over 15 years (~\$120 Million) and business expenditures will significantly amplify the positive outcomes of the \$1 Million investment.

Farming and running food related businesses that support health and local economy should not be treated as a hobby that entrepreneurs pursue out of a personal passion. Rather, food and farming businesses should be treated as essential services and should be properly supported by governments regulations. The success enjoyed by many businesses supported by FarmWorks speaks to the potential for increased entrepreneurship in Nova Scotia and beyond if proper supports were in place. As one client explains, *"[s]uccess breeds success and everyone wants to be on a winning team, including the government. Continue giving the support needed to encourage those with ideas, whether financially or just that pat on the back when it is deserved"*. This speaks to a sentiment shared by many small business owners who currently do not feel supported by current policy frameworks, but who are working towards creating positive change.

Healthy food, and the income that enables people to purchase what they need, is crucial for health. As Robert Strang, Nova Scotia's chief medical officer of health says, "We can't treat our way out of this." The "determinants" of health are social, not medical. By now most people know this but buy-in to solutions is a hard sell.^{xvii}

Investment of capital into the production of food in Nova Scotia is essential for the health and social benefits resulting from the work of producers such as those supported by FarmWorks. Given the success of the FarmWorks CEDIF program, many clients noted that government and banks could play a more active role in raising public awareness around alternative investment opportunities. As one client notes, *"Government should promote investment by Nova Scotians in programs like FarmWorks and the NS Investment Tax Credit."*

NOTE 1: Since the survey only asked businesses to estimate their total Gross Business Revenue for 2016 in a variety of range options, it is necessary to use a calculation to estimate the total Gross Revenue created by the responding businesses. A very conservative method to estimate this was to use a flat \$25,000/year for those survey respondents selecting under \$50,000 in Gross Revenue and then the bottom figure of the remaining category options. Extending these results to 48 businesses, and being made aware of the fact that at least three businesses had gross revenue in excess of one million dollars suggests that gross annual revenue may approximate \$10,000,000.

Gross Revenue Range option from Survey	# of Client Responses	Revenue Figure Used for Estimate	Estimate
Under \$50,000	11	\$25,000	\$275,000
\$50,000 to \$100,000	2	\$50,000	\$100,000
\$100,000 to \$150,000	2	\$100,000	\$200,000
\$150,000 to \$200,000	4	\$150,000	\$600,000
\$200,000 to \$250,000	0	\$200,000	0
\$250,000 to \$300,000	3	\$250,000	\$750,000
\$300,000 to \$350,000	2	\$300,000	\$600,000
\$350,000 to \$400,000	2	\$350,000	\$700,000
Over \$400,000	12	\$400,000	\$4,800,000
TOTALS	38		\$8,025,000

NOTE 2: Since the survey only asked businesses to estimate their total Gross Business Expenditures in 2016 in a variety of range options, it is necessary to use a calculation to estimate the total Gross Revenue created by the responding businesses. A very conservative method to estimate this was to use a flat \$25,000/year for those survey respondents selecting under \$50,000 in Gross Revenue and then the bottom figure of the remaining category options. Extending these results to 48 businesses, and being made aware of the fact that at least three businesses had gross revenue in excess of one million dollars suggests that gross annual expenses may approximate \$9,000,000.

Gross Expense Range option from Survey	# of Client Responses	Revenue Figure Used for Estimate	Estimate
Under \$50,000	8	\$25,000	\$200,000
\$50,000 to \$100,000	4	\$50,000	\$200,000
\$100,000 to \$150,000	2	\$100,000	\$200,000
\$150,000 to \$200,000	4	\$150,000	\$600,000
\$200,000 to \$250,000	1	\$200,000	\$200,000
\$250,000 to \$300,000	1	\$250,000	\$250,000
\$300,000 to \$350,000	4	\$300,000	\$1,200,000
\$350,000 to \$400,000	1	\$350,000	\$350,000
Over \$400,000	9	\$400,000	\$3,600,000
TOTALS	34		\$6,800,000

NOTE 3: Since the survey only asked businesses to estimate their total Payroll and Owners Draws in the past 12 months; it is necessary to use a calculation to estimate the total Payroll and Owners Draws created by the responding businesses. A very conservative method to estimate this was to use a flat \$25,000/year for those survey respondents selecting the Under \$50,000 category and then the bottom figure of the remaining category options. Extending these results to 48 businesses suggests that gross annual payroll and owner's draw may approximate \$4,000,000.

Gross Payroll and Owner's Draw Range from Survey	# of Client Responses	Revenue Figure Used for Estimate	Estimate
Under \$50,000	18	\$25,000	\$450,000
\$50,000 to \$100,000	3	\$50,000	\$150,000
\$100,000 to \$150,000	6	\$100,000	\$600,000
\$150,000 to \$200,000	0	\$150,000	0
\$200,000 to \$250,000	2	\$200,000	\$400,000
\$250,000 to \$300,000	0	\$250,000	0
\$300,000 to \$350,000	1	\$300,000	\$300,000
\$350,000 to \$400,000	1	\$350,000	\$350,000
Over \$400,000	1	\$400,000	\$400,000
TOTALS	32		\$2,650,000

References

ⁱ <http://farmworks.ca/home/> FarmWorks Investment Co-operative Limited was incorporated as a for-profit Co-operative in May 2011 by an association of community leaders concerned about food related issues. FarmWorks mission is to promote and provide strategic and responsible community investment in food production and distribution in order to increase access to a sustainable local food supply for all Nova Scotians. FarmWorks collaborates with other organizations, departments, agencies and individuals that share the vision of Healthy Farms and Healthy Food.

FarmWorks Community Economic Development Investment Fund (CEDIF) lends money to for-profit food-related businesses that meet stringent requirements and whose values and goals align with FarmWorks. A broad-based portfolio is carefully chosen by the Board to balance risk and achieve strategic goals. The invested capital is loaned to entrepreneurs starting businesses, improving equipment and technology, developing new products, increasing food safety, adding value, decreasing costs, increasing sales, improving margins. Payment of the principle and interest at six percent commences three months after the loan is approved. No fees are charged for applications or early repayment. Directors and Advisors provide mentoring and promotion to support and strengthen food producing businesses in the portfolio as well as others across the Province.

ⁱⁱ http://nsfa-fane.ca/wp-content/uploads/2011/06/CrisiOpportunity_SCREEN.pdf To maintain a steady flow of products, and to hold prices down, the food chains scour the world for the low-priced food to which consumers have become accustomed. Atlantic Canada's farms, being relatively small and restricted by a short growing season, are ill-placed to compete on price and volume – though they can compete very strongly on quality and, most importantly, on security and reliability. The result of these trends is that Canadian consumers—especially Atlantic consumers—have little access even to products that their own farmers can readily supply. In a supportive regulatory environment, with governments committed to the security of provincial food supplies, many innovations are possible that could re-shape agriculture and marketing, creating a vibrant and sustainable local food supply. The report identifies promising new directions in other jurisdictions, and suggests approaches that would bring farmers, consumers and governments together in a common dedication to the goal of a secure, sustainable, and just food system.

ⁱⁱⁱ <http://newmarketfunds.ca/pdf/Eight-Tracks.pdf>, page 33. Community Economic Development Investment Funds (CEDIF) are pools of capital formed through the sale of shares to persons in a defined community, which is invested in the creation or expansion of a local business. They exist as a result of an enabling structure adopted by the Province of Nova Scotia. The CEDIF model is a highly effective mechanism for supporting local investment in economic development. The cost to the Province (as of 2014) of this tax credit is estimated at approximately \$20 million. The impact on the communities which have started a CEDIF have been significant and the multiplier from these investments would certainly take the overall impact closer to \$100 million. The magic in the CEDIF approach is that no person inside government decides where investment goes. The role of government is to ensure there is clear disclosure and that investors know what they are investing into. It is a major paradigm shift to have government let go and let communities make these decisions for themselves and the results have proven this to be the better course of action.

^{iv} https://nssc.novascotia.ca/sites/default/files/CEDIFRegsApril_13_2011.pdf

^v <https://nssc.novascotia.ca/corporate-finance/community-economic-development-Investment-funds>

^{vi} Bregendahl C, and A Enderton. (2013). *2012 Economic Impacts of Iowa's Regional Food Systems Working Group*. Ames, Iowa: Leopold Center. Retrieved from <https://www.leopold.iastate.edu/>

^{vii} Schmit, TM, BBR Jablonski, and D Kay. (2013). *Assessing the Economic Impacts of Regional Food Hubs: the Case of Regional Access*. New York: Cornell University, pp. 3.

^{viii} Meter, K. (2008). *Local Food as Economic Development*. Minneapolis: Crossroads Resource Center. Retrieved from <http://www.crcworks.org/lfced.pdf>

^{ix} Marsden, T, & E Smith. (2005). Ecological entrepreneurship: sustainable development in local communities through quality food production and local branding. *Geoforum* 36, 440–451. See also Renting, H., T Marsden, & J Banks. (2003). Understanding alternative food networks: exploring the role of short food supply chains in rural development. *Environment and Planning A*, 35(3), 393-411.

^x Martinez S, M Hand, M Da Pra, et al. (2010). *Local Food Systems: Concepts, Impacts, and Issues*. ERR 97, U.S. Department of Agriculture, Economic Research Service.

^{xi} <http://farmworks.ca/wp-content/uploads/2013/06/FW-evaluation-report-May-2014.pdf> At 18 months - Our survey revealed that 20 full time jobs and six part-time jobs were created as direct result of the FarmWorks loans over and above the jobs held by the business owners themselves. The owners and their partners account for another 21 full-time and 14 part-time positions supported by FarmWorks investments – though, of course, those positions cannot be attributed solely to FarmWorks support. The majority of additional comments indicated that FarmWorks procedures are helpful, representatives are accommodating and that the process has been a positive experience. Many indicated that they would like to see FarmWorks expand in the future, and able to make larger loans to more businesses. There were suggestions about future directions for the organizations. Make FarmWorks a strong brand, perhaps involve community college

students in specific projects, have paid staff and incentives for staff to bring in investments, and increase promotion for FarmWorks Flavours and Gentle Dragons events. The importance of FarmWorks expansion and better promotion was mentioned in the context of existing “roads blocks” to small businesses, as FarmWorks is a real solution to these blocks and thus to the expansion of a healthy local food system in Nova Scotia.

^{xii} <http://www.sibacs.com/keeping-it-rural-2015-conference/> <http://www.sibacs.com/keeping-it-rural-2015-conference/>

The purpose of this conference is to highlight some of the most successful rural development initiatives and organizations in Canada and the U.S. that many of us may not be aware of or have the opportunity to visit. These are regions that face many of the same rural social and economic challenges we do and have developed new approaches and initiatives to facilitate the rural economic revitalization of their regions

^{xiii} http://www.novascotia.ca/finance/site-finance/media/finance/estimates_1996.PDF

^{xiv} <http://www.businessinsider.com/the-demand-for-local-food-is-growing-2017-4>

^{xv} <http://www.statcan.gc.ca/daily-quotidien/160226/t001b-eng.htm>

^{xvi} <https://www.centreforpublicimpact.org/case-study/community-economic-development-investment-funds-canada/>

^{xvi} <http://thechronicleherald.ca/novascotia/1493917-vibert-health-problems-demand-curing-our-social-ills#>

Publications of interest

1. <https://www.extension.umn.edu/community/research/reports/docs/2014-Economics-of-Local-Food-Systems.pdf>
2. <https://www.ncbi.nlm.nih.gov/books/NBK305168/>
3. https://www.nswpb.ca/application/files/8914/6427/0132/the_workforce_multiplier_effect_of_local_farms_and_food_processors_in_northwestern_ontario.pdf We found that the workforce multiplier effect of Northwestern Ontario for the year 2011 was 1.4, which means that every 1000 jobs in local farms and food processing sector in Northwestern Ontario support 400 extra jobs indirectly with suppliers and retailers.
4. http://www.fanrpan.org/documents/d00766/Food_Crisis_Report_Jan2004.pdf The analysis of multipliers shows that each additional unit demanded from the primary sector produces strong impact on other sectors, generating a multiplier effect on the total output of the economy. This effect ranges from 3.076 additional units in Canada. It was also estimated that every additional unit produced in the primary agricultural sector, significantly increased production in the food sector (from 0.16 in Canada to 0.73 in Argentina) as well as in the agroindustrial sector (from 0.10 in Canada to 0.56 in Argentina). Every additional unit of primary agricultural production demanded also has a very positive effect on factor payments (labor, capital and land): from US\$ 1.421 in Canada, to US\$ 3.34 in Argentina.
5. <https://cardi.cals.cornell.edu/sites/cardi.cals.cornell.edu/files/shared/documents/ResearchPolicyBriefs/Policy-Brief-Aug14-draft02.pdf> The implied output multiplier for all agriculture in NYS (i.e., the sum of the direct, indirect, and induced effects divided by the direct effect) is 1.43, meaning that for every additional dollar generated in agriculture \$0.43 is generated in backward linked (nonagricultural) industries (Table 1). If we decompose the multiplier effect into its indirect and induced components, the indirect effect is 0.27 (from business-to-business activity) and the induced effect is 0.16 (from labor income spending). Indeed, the agricultural manufacturing employment multiplier (2.83) is well above either the agricultural production (1.45) or support services (1.12) sectors and, in part, reflects strong linkages (indirect effects) to agricultural production activity in NYS; e.g., dairy manufacturing in NYS sourcing milk from NYS dairy farms. In total, an additional job generated in agriculture supports another 0.80 jobs in backward-linked non-agricultural industry sectors.
6. <http://digitalcommons.library.umaine.edu/cgi/viewcontent.cgi?article=1025&context=mpr> ...every \$1.00 in revenue to Maine’s food makers is associated with an estimated \$1.82 in total statewide economic activity. This \$1.82 in sales includes the “original” \$1.00 in revenue to food makers and an additional \$0.82 in sales activity in other sectors of the Maine economy ... for each person employed as a food maker in Maine, there are an estimated 1.20 additional workers in the state whose jobs are supported by the activities of food processors or producers.
7. http://www.novascotia.ca/finance/site-finance/media/finance/estimates_1996.PDF
8. <https://www.centreforpublicimpact.org/case-study/community-economic-development-investment-funds-canada/>

Organizations and Authors

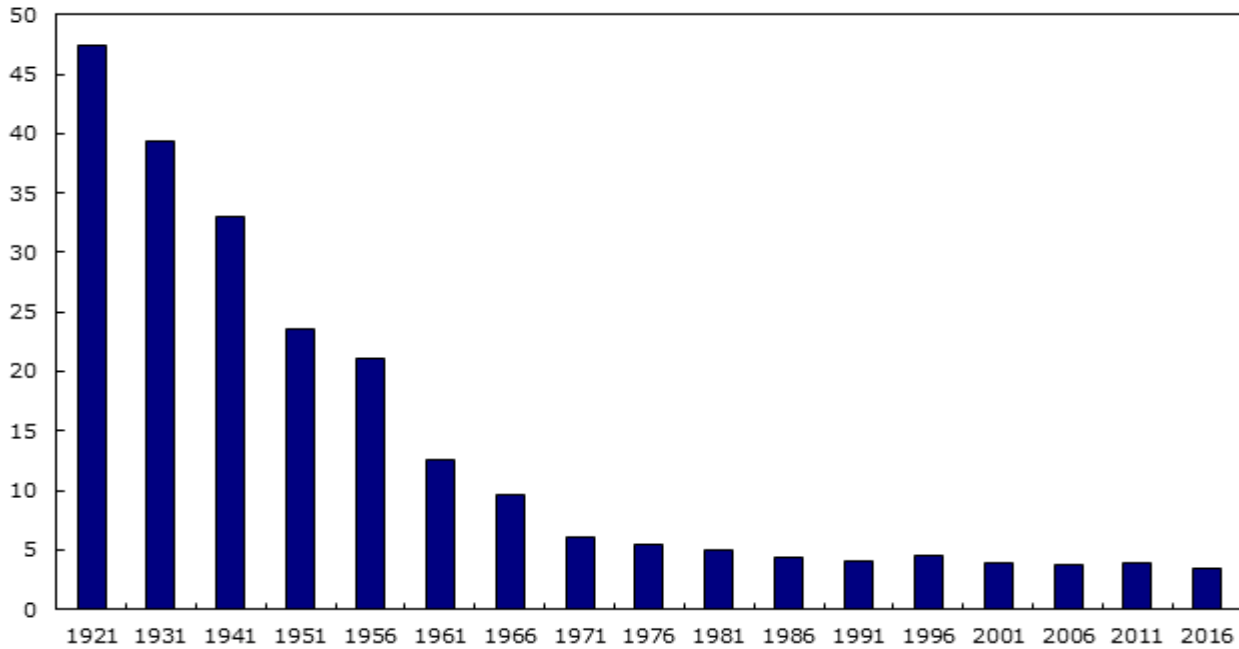
- a. FarmWorks Investment Co-operative Limited, 70 Eden Row, Greenwich, NS, B4P 2R2
<http://farmworks.ca/home/>
- b. BC Rural Centre: The Centre provides timely, important information for rural and First Nations residents, organizations, governments, and businesses. <https://www.bcruralcentre.org/>
- c. Food, Locally Embedded, Globally Engaged Partnership: a research and knowledge sharing partnership committed to fostering food systems that are socially just, ecologically regenerative, economically localized and that engages citizens. Research questions explore territorial integration, scaling up opportunities, innovative governance, agro-ecology and metrics. The collaboration includes seven Canadian regional nodes of practitioners and researchers, and three international working groups. FLEdGE is hosted by the Centre for Sustainable Food Systems at Wilfrid Laurier University.
<https://fledgeresearch.ca/>
- d. Chloe Kennedy, MES: Education Specialist - Ducks Unlimited Canada; Nature Interpreter - Government of Nova Scotia; Lecturer - Dalhousie University
- e. Gordon Borgstrom: MSc, Executive Director - Southern Interior Beetle Action Coalition; BC Rural Centre; CEO - Renaissance Strategy Development
- f. Linda Best, BSc: FarmWorks Director; Founder; Chair - Friends of Agriculture in Nova Scotia; Medical Researcher - Gastroenterology, QEII
- g. Irena Knezevic, PhD: Assistant Professor (Communication, Culture, and Health) at Carleton University; Research Associate - Centre for Sustainable Food Systems at Wilfrid Laurier University



The 2016 Census of Agriculture counted 3,478 [census farms](http://www.statcan.gc.ca/pub/95-640-x/2016001/article/14802-eng.htm) in Nova Scotia, down 10.9% from 2011, a higher decline than the national average of 5.9%. <http://www.statcan.gc.ca/pub/95-640-x/2016001/article/14802-eng.htm>

Total number of agricultural operations, Nova Scotia, 1921 to 2016

number of operations
(thousands)



Sources: CANSIM tables 004-0002 and 004-0204.

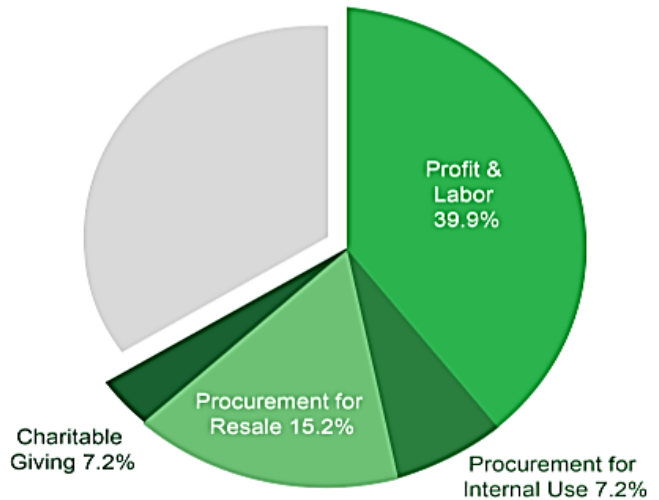
Local Benefit of Indie v. Chain Restaurants

Chain Restaurants



Local Recirculation of Revenue: 34.5%

Independents

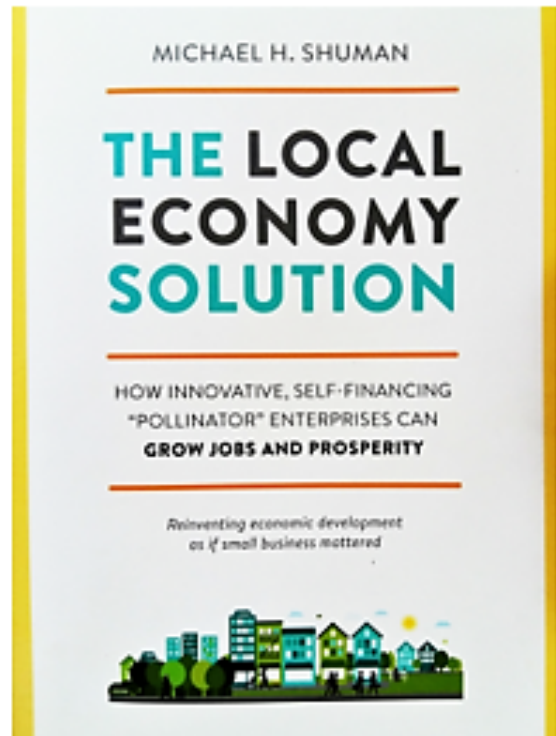


Local Recirculation of Revenue: 65.4%

*Compiled results from nine studies by Civic Economics, 2012: www.civiceconomics.com
Graph by American Independent Business Alliance: AMIBA.net

In *The Local Economy Solution*, author Michael Shuman profiles 28 pollinator enterprises, including Nova Scotia's FarmWorks Investment Co-operative, that are spurring small business efficiency, neighborhood improvements, entrepreneurship, local purchasing and investing, profitable business partnerships, and more.

What are pollinator businesses? They already exist and they are seeding and strengthening other local businesses. They are creating jobs. And, they are facilitating local economic development with far greater efficacy than older, top-down approaches. They are also self-financing, which eliminates the need for communities to waste precious taxpayer dollars on recruiting global corporations from afar or to rely on unpredictable, one-time grants or philanthropy to fund economic development.



Shuman states in *Local Economy Solution* that we should embrace the following initiatives:

- **Nurture the start-up and growth of locally owned businesses;**
- **Maximize cost-effective self-reliance through import substitution, while expanding exports from local businesses;**
- **Identify, celebrate, and spread models of triple-bottom-line (people, planet, profit) success in local businesses;**
- **Accomplish as many of these goals as possible through private investment.**