



Rural Ontario Foresight Papers 2017

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Cover images by Erin Samuelli

Foreword

The *Rural Ontario Foresight Papers* is a collection of six papers on selected themes as prepared by expert authors. Each has a corresponding northern commentary prepared by the Northern Policy Institute. The Papers were commissioned by the Rural Ontario Institute as part of the Measuring Rural Community Vitality initiative.

Each *Foresight Paper* explores a particular topic in view of the current situation in rural and northern Ontario and looks ahead to what directions various stakeholders, governments or non-profits might follow in order to foster vital rural development in light of the trends and opportunities the authors foresee. The Papers offer an opportunity for rural stakeholders to be informed by the perspectives of these authors and to consider the implications for their own work or their own communities.

The Rural Ontario Institute will be providing an online forum for dialogue and exchange of views on the Papers. We hope that readers will find a key thought or significant insight regarding one or more of the topics that resonates with them. We invite you to share that insight with colleagues and other rural stakeholders by posting your response online. Similarly, you may have specific experience and knowledge surrounding the topic that reinforces a point you read in the paper or that provides an alternative perspective should you wish to contribute that to the online discussion. A link to this online forum will be sent out via email in the fall. If there is significant response to a particular Paper the Institute may arrange a webinar with the author to enable further discussion on that theme.

Clearly, six discussion papers cannot capture the full range of trends impacting the future rural development of Ontario communities. The Institute has conducted several surveys on community development priorities with rural stakeholders and municipal councillors over the last few years which were all taken into consideration when first identifying potential topics. The topics were then chosen after dialogue with ROI subscribers and considering other research or initiatives underway in the province. The authors of each paper were selected because they have grounded experience, a history of involvement with the topic they address and/or academic expertise and research knowledge to share.

Recognizing the long-term nature of many rural development challenges, we hope to commission another set of papers with appropriate authors for release in 2019. If you would like to suggest a topic for future potential *Foresight Papers* please do so in the online forum or send us an email at info@ruralontarioinstitute.ca. Ideally, this continued interest will help ROI secure resources to make this an ongoing biennial program similar to that of the Scottish Rural Policy Centre from which we took our inspiration.

The order of presentation in this printed compiled edition moves from broader policy issues to more specific sectoral themes. We thank the authors for reviewing each other's work to identify a number of cross-connections, but the papers do not need to be read consecutively. Once the papers are released online in fall of 2017 they will be available for individual download.

The Measuring Rural Community Vitality initiative is being conducted with the support of a Ministry of Municipal Affairs Research and Analysis Grant. Please note that the opinions and viewpoints expressed in the papers are those of the authors and do not reflect the views of the Ontario government nor that of the Rural Ontario Institute.



Authors

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Michael Fenn has been an Ontario Deputy Minister under three Premiers, municipal chief administrator in Hamilton and Burlington, and the founding CEO of both Metrolinx and Mississauga Halton LHIN. He is now Senior Advisor with StrategyCorp and a Board Director of the C\$85+ billion OMERS AC pension fund. His research publications address 'megatrends' and the future of Canada's infrastructure, among other issues. Michael has received a number of professional awards and he is profiled in the recent book: *Leaders in the Shadows: The Leadership Qualities of Municipal Chief Administrative Officers*, by Professor David Siegel.

Dr. Catherine Middleton's research focuses on the development and use of new communication technologies, with specific interests in mobile devices and fixed and wireless broadband networks. Her research projects have investigated the development of next generation broadband networks (including Australia's National Broadband Network), competition in the Canadian broadband market, the use of ubiquitous communication technologies in organizations and Canadians' internet use. She was the Principal Investigator for the Community Wireless Infrastructure Research Project and is the Co-Investigator on the Canadian Spectrum Policy Research Project. Dr. Middleton held a Canada Research Chair in Communication Technologies in the Information Society (2007-2017) and was named to the inaugural cohort of the Royal Society of Canada's College of New Scholars, Artists and Scientists in 2014.

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Charles Cirtwill is the founding President and CEO of Northern Policy Institute. Charles joined NPI in September 2013 after twelve years with the Atlantic Institute for Market Studies. He has worked in the

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Growth Beyond Cities: Place-Based Rural Development Policy in Ontario

David Freshwater

Introduction

This paper makes the case for a rural policy in Ontario that recognizes that conditions vary so greatly across the vast territory of the province that effective public policy has to incorporate these spatial differences. Place-based policy starts from the conditions in specific regions and then develops a set of support mechanisms that are tailored to help the people and communities in that region achieve their economic development objectives. Because rural communities are small and dispersed, they lack the internal capacities of large urban centers and follow a very different development path that is based on low density economies (OECD, 2016). The right set of investments by the province in rural communities can allow them to make a significant contribution to the provincial economy and improve the quality of life of the 20 percent of the provincial population that lives in rural areas.

Place-based economic development policy can be controversial (Barca, McCann and Rodriguez-Pose 2012, Kline and Moretti 2014, World Bank 2008). It is seen by some as a mostly inefficient form of transfer payments that only prop up weak local economies. In the process, resources that could be put to better use are trapped in low-value activities in declining regions. Others see it as offering rewards to special interests, by providing support to some that is not provided to others, thereby violating the principle that government should treat people, firms and places equally. Finally, some acknowledge that, in principle, different places need different types of support, but argue that governments are typically unable to identify the appropriate types of support, nor can they effectively deliver it. These arguments have been used to suggest that government should adopt spatially blind approaches that deliver the same level and form of support to people and firms no matter where they are located.

On the other hand, proponents of place-based economic development policy argue that in a heterogeneous world where market forces are far from perfect, transaction costs are high, opportunities vary greatly from place to place, and there are clear differences in levels of development within nations and provinces, there is a useful role for place-based policy that has both efficiency and equity benefits (Barca, McCann and Rodriguez-Pose, 2012; OECD, 2006).

Efficiency arguments recognize that because resource endowments vary across space, transport costs exist and can be significant, and preferences are heterogeneous, there is a clear spatial distribution of economic activities. Consequently, if some regions are not performing at a high level, investing in raising their performance can provide a higher rate of return to society than simply abandoning these places. Further, equity concerns recognize that different people and places can aspire to different futures, and a spatially blind approach may not suit these diverse aspirations. As a result, imposing undifferentiated policies may treat people equally but not equitably.

If not a place-based territorial policy, then what form should economic development policy take? Two alternatives are possible. Both are spatially blind approaches that do not differentiate policy by type of place. Support is provided in the same manner everywhere to all who are eligible. The first alternative is to focus on people and try to improve their human capital as a means to improving their well-being (Taylor and Plummer, 2003). People with better skills are seen as either being able to find employment in their current location, or if this is not possible, being able to relocate to another place where jobs are available. People-based approaches have a strong belief in the efficiency of market forces as a means to resolve situations of excess supply or excess demand in any particular place. Improving skills and connecting local labour markets, so there is more effective matching of workers and available jobs, is seen as the most effective way to improve the aggregate or provincial economic outcome. The other alternative is to focus on trying to improve the competitive position of firms in target

industries — industrial policy (Rodrik, 2004). This can be classic industrial policy where emphasis is placed on strengthening key sectors, such as: automobile assembly, bio-technology, renewable energy, aerospace, financial innovations, social media, film or any of a number of sectors that are seen as having a strong growth potential. Or it can follow a more nuanced approach where the emphasis is on developing a cluster of firms that includes both end producers and important parts of their supply chain. The cluster approach goes beyond an emphasis on a single sector and encompasses a variety of firms that can develop the classic industrial agglomeration benefits of industrial districts as identified by Alfred Marshall in the 1890s (Marshall, 11923).

The three options are often considered to be competing alternatives, requiring that only one be chosen. However, the three approaches to strengthening economic development can be complementary. In particular, in any place, whether it is a large metropolitan region or a rural area, it is always important to find ways to enhance workforce skills and to support core business sectors. This means that improving human skills and supporting local firms are always at the core of local economic development strategies. However, it is important for national and provincial governments to construct broad-based initiatives in education and training and to put in place support platforms for businesses by ensuring uniform access to financial services and support for innovation. The missing piece at the national and provincial level in many instances is the recognition that different localities will emphasize different aspects of workforce development and will identify different business sectors as their best opportunities. With this recognition, a national or provincial government can supplement its broad general purpose forms of support with spatially targeted assistance that is designed to address the particular needs of specific types of regions, whether it is mass transit in metropolitan regions or basic sewer and water systems in small rural places that are out of compliance with current environmental regulations.

Why Rural Policy

Having a distinct rural policy is the first step in this process, and a way to complement the standard support for urban areas. In the Canadian rural context the importance of a differentiated rural policy was perhaps best captured in Manitoba in the early 1970s, when then-Premier Ed Schreyer articulated the benefits of a “stay option” for rural families. He believed the role of the provincial government was to help rural communities make investments in improving social and economic conditions so that rural people had a real possibility to remain if they wanted to. Importantly, provincial support was to be conditional on the investments having a reasonable prospect for generating a positive rate of return in the community. Of course, this “stay option” meant doing different things in different parts of the province depending on the various needs.

More broadly, in 1981, Joel Garreau’s book *The Nine Nations of North America* introduced the idea that the boundaries that define nation states can blur regional similarities that cut across these boundaries. He based his nine regions on similarities in economic function and socio-cultural linkages that do not neatly follow national or other administrative boundaries. Garreau placed southern Ontario in the same region as the Upper Midwest, and northern Ontario in a natural-resource-dependent region that cuts across the Canadian Shield, the northern part of the Prairie provinces up into the Territories, and down into the western states of the US. He argued that the industrialized corridor that connects Chicago and Montreal, running through Detroit and Toronto, leads to a high degree of homogeneity between southern Michigan and southern Ontario. This makes southern Ontario more like the highly industrialized states of the Upper Midwest than like other parts of Canada. Similarly, northern Ontario, like the Upper Peninsula of Michigan, resembles the resource rich, but population scarce, areas to their west.

This paper is essentially a rescaling of Garreau’s idea to identify important differences among the distinct geographic regions within Ontario, most of which are rural in nature. As Ontario becomes more and more dominated by the Greater Toronto Area (GTA) in terms of population share, economic activity and political influence, it is easy to simply think of Ontario as the GTA and everything else, or perhaps, the GTA, other metropolitan areas and rural Ontario. While the GTA is clearly a unique phenomenon that has a vast influence on the province, as the dominant region in the province, and indeed in Canada, the

area outside the GTA is simply too large and diverse to be seen as a single region, or even a region that can be bifurcated into its urban and rural components.

One strong argument for a place-based rural development policy in Ontario is the simple fact that the provincial government directly holds the vast majority of the land in the province. Over 85 percent of Ontario is Crown Land, and while there is limited Crown Land in southern Ontario, except for parks and other protected areas, in northern Ontario over 95 percent of the land is held by the province. Given this situation, the province effectively controls the vast majority of land-use decisions outside settled areas. Especially in northern Ontario, the development prospects of small communities can hinge on decisions by the province on what uses of Crown land will be allowed. Without spatially sensitive land-use policies for Crown Lands, it is unlikely that coherent economic development can take place in rural Ontario.

More importantly, given the distribution of responsibilities in Canada, provinces have direct control of the majority of public policies that affect people and firms on a day-to-day basis. Provinces control, for example, education, health care, land use, resource management and public safety, all of which affect economic development and the quality of life. If these policies are not designed with sensitivity to differences between rural and urban areas, and ideally with sensitivity to the nuances across different rural areas, some regions are left worse off. Boxes 1 through 3 (below) provide three examples of how decisions by the government of Ontario have put in place policies that, from an aggregate, but mainly urban, perspective, make sense, but which have led to unintended adverse effects on rural areas and people. It is unlikely that any public policy can treat people in every part of the province equitably, but at present it can seem to rural people in Ontario that their interests are being systematically marginalized by the provincial government (Spears, 2016).

The Changing Nature of Rural Ontario

The simplest way to differentiate policy on a spatial basis is between urban and rural territory. Governments often acknowledge that urban and rural areas require different types of policy, but have rarely examined how changing conditions in urban and rural regions lead to a need for new policies. Historically, agricultural policy was seen as the main policy thrust for rural development, perhaps supplemented by policies for other natural resource industries, as well as transport and infrastructure investments (OECD, 2006). Urban policy had a broader, but less coordinated, approach, including support for: transport, infrastructure, higher education, public housing, advanced health care and major cultural facilities. However, over time, rural areas have diversified their sources of income, and farming and other natural resource industries have shed workers even as they have increased output. Today, even in areas where agriculture remains the major use of land, it accounts for a small share of economic activity and an even smaller share of employment.

Even when the majority of the rural population was engaged in farming, in many rural areas farming was not the major economic activity. This reflected unfavourable climate, topography and other geographic factors. In these situations something other than farming underpinned rural settlements. Importantly, these other industries — fishing, forestry, mining, energy or tourism — resulted in a different settlement pattern than is the case with farming. Only farming led to the transformation of large amounts of rural territory and a dispersed settlement pattern, with farm homesteads and market towns being spread out across the landscape. Other resource industries concentrated settlement in specific locations and tended not to transform the areas where people did not live.

This was especially true for mining and fishing where mine sites and fishing ports became the only settled areas. It is also largely true for forestry, unless the forests are intensely managed, which is rare in Canada. While forested areas are radically transformed when harvested, this is an infrequent action on any specific parcel of land, and in Ontario, one that occurs about once a century. Importantly, forested land is not densely settled even when intensely managed. The only other land use producing a settlement pattern similar to farming is a form of tourism and recreation that leads to the intense development of seasonal private homes. Cottage-dependent areas have a relatively dense settlement

pattern, albeit seasonal in nature, that is focused on a particular amenity such as lakes, ski hills or some other significant attractor. Second homes lead to a strong local service sector to support the seasonal residents and the presence of small settlements to accommodate visitors and workers in supporting industries.

Some governments have seen the reduced role of the natural resource industries in rural economies as an indication that urban and rural economies are converging and that there is no longer a reason for a distinct rural policy (Copus *et al.*, 2006). Rural economies, like urban economies, are now dominated by private and public services, such as education, health care, retail or tourism. This can be seen as justification for adopting spatially blind approaches that lead national or provincial governments to offer the same forms of support to all regions. However, there are two clear shortcomings to this approach. The first is that rural economies remain markedly different from urban ones. While both are service-employment dominated, the nature of the services is very different. In rural areas there may only be basic medical services and no post-secondary education. Tourism may be important in urban and rural areas, but in rural areas it is mainly nature based, while in urban areas it is more cultural. Retail is the largest source of employment in both urban and rural areas, but the range of shops, the variety of goods and the extent of competition is far more limited in rural than in urban situations.

Box 1: Renewable Energy and Rural Electricity

In recent years, Ontario has invested vast sums of money in renewable energy. At the same time, there has been a significant consolidation of power supply in the province, with most small municipal electricity systems being absorbed by Hydro One and electricity rates being harmonized across the province. In this process, electricity costs have sky-rocketed for many rural customers. This reflects much higher delivery charges, as well as higher cost generation. Ironically, renewable energy is far more likely to be generated in rural areas than was the case for coal or oil-fired power stations, which were sited close to cities. Now a rural household next to a large wind generation site may have an electricity bill much larger than an urban dweller for the same quantity of electricity because of large transmission and distribution charges, even though the urban household is hundreds of kilometers further away from the place the power was produced.

Further, rural households have less scope for reducing their electricity bill. The existing rural housing stock is older, household incomes are lower, there is less opportunity for switching to gas and new, better-insulated homes are not being built. The result is a growing incidence of fuel poverty, especially in northern Ontario where more homes are heated with electricity and winters are long. Moreover, businesses in rural areas tend to be major electricity users, because the service sector is less important, and high electricity prices are affecting their ability to be competitive. The result is a provincial policy that has placed a disproportionate burden on rural citizens and regions.

And, while governments may intend to provide spatially blind support to all places, they typically fail to do so. Funding formulas tend to favour urban areas, the higher costs of delivering equivalent services in rural areas are not fully considered nor funded, and a variety of programs, such as public transit, support for universities and funding for major cultural facilities, are only provided in urban areas. The result is a policy system that too often inherently advantages urban areas, and that can contribute to slower economic growth in rural regions.

Certainly there are important public policies that support citizens irrespective of their location, such as, health care, education, public safety and other social services. These are seen as entitlements that all should have access to. However, even where access is assured to both urban and rural residents, it often

occurs through different mechanisms and typically with important differences. For example, in rural regions there is no school choice and access to school may entail a long bus ride to and from home. Similarly, while both urban and rural residents may have access to health care on equivalent financial terms, rural residents will have fewer options in terms of doctors and facilities and will have to travel long distances to an urban area for tertiary care services or access to specialists.

Rural areas in reasonable proximity to an urban place, say of 50,000 or more that has a relatively full set of public services, may have roughly equivalent opportunities to those of urban people, once higher travel costs are accounted for. But rural people that live far from a significant urban center can face a significant penalty in terms of access to public and private services. They also face a much different set of employment opportunities. Local labour markets in remote rural regions are small, specialized and unconnected. At any point in time the set of available job opportunities in any particular local labour market will be small and limited. This can lead to significant skill mismatches that can harm both workers and employers. When mismatches develop, workers either have to move to another distant labour market, entailing changing place of residence, or in the case of employers, workers with appropriate skills have to be recruited from a distant labour market.

The large differences between the situations facing urban and rural people and firms can lead to governments adopting at least a binary place-based policy approach. However, while the problems and needs of urban areas are fairly consistent in nature — public transit, urban infrastructure, public housing, etc., — rural places, even those of a similar size, can face huge differences in situation and need. For example, Kemptville and Tobermory are both small rural communities with populations of about 5,000 people, but they are considerably different in terms of economic function and opportunity. Tobermory is at the extreme tip of the Bruce Peninsula, and while remote from any urban place, has a strong summer tourism economy. Kemptville is a farm service centre located on a major road that connects Ottawa to the Trans-Canada Highway and has a branch campus of The Ontario Agricultural College of the University of Guelph. While some aspects of a single uniform rural policy will certainly benefit both places, much of their development potential will be only weakly addressed by generic rural policy that cannot appropriately respond to such significant differences in situation and opportunity.

Regions and Place-Based Policy

National and provincial/state governments have significant concerns with improving economic conditions across all their territory: balanced growth; ensuring that all citizens achieve some minimal standard of well-being; equity; and reducing conflicts among the various parts and communities of their territory: social cohesion. Achieving these conditions brings about political success for government, and,

Box 2: Gasoline Taxes and Rural Households

Cars in rural areas are a more of a necessity than is the case in a city where public transit or taxi services are readily available. For a low-income rural household, operating a car is a major share of their household budget. A major element of this cost is the price of gasoline. High provincial taxes on gasoline are justified, in part, as a way to fund public transit systems and encourage their use, and to reduce emissions associated with congested urban roads.

Rural residents pay these taxes but do not have access to public transit and rarely experience congested highways. To be sure, rural residents tend to have relatively long distance commutes from their place of residence to work because in rural labour markets jobs are typically not available in close proximity to where they live. While they tend to drive more miles in a year than city residents, most of this travel is part of rural life where stores, schools, public services and jobs are dispersed. Gasoline taxes also fund roads and this use is clearly beneficial for rural residents, but perhaps some other form of tax might be a fairer way to address the problems of urban congestion.

more importantly, a higher quality of life. The challenge in a highly diverse environment, such as is the case in Ontario, is how to best accomplish these goals. A necessary first step is to appreciate the role that differences in geography play in altering both the opportunities and constraints that people in various locations face.

Box 3: Access to Health Care by Rural Citizens

Dealing with rising healthcare costs and a growing number of older people are major challenges for the provincial government. In rural areas the problem is especially acute because aging is taking place at a faster rate and the population is widely dispersed making it more expensive to deliver health services. Moreover, the presence of a hospital in a community, just like the presence of a high school, is a significant factor influencing economic attractiveness and quality of life. Places that lose these essential services become less desirable locations for firms and households.

A big challenge is the trade-off between ready access, which requires a large network of hospitals to allow proximity, and the lower cost of operating a smaller number of larger facilities that can capture economies of scale and that have higher utilization rates. Hospital consolidation, like school consolidation, imposes longer travel costs on users. Thus, part of the saving for the province from consolidation is offset by higher travel costs for citizens. In the case of health care, these costs can involve worse health outcomes, as well as additional monetary costs, if it takes too long to get to a treatment centre. For example, the large new regional hospital in St. Catharines offers more advanced care than was available previously at the old smaller hospitals in the Niagara Region. But, for the more remote part of the southern portion of the Region, the resulting loss of easy access to local hospitals has led to much greater travel distances, which makes it possible that access to health care is now worse than in the past. For people in the distant north, where roads are limited in number and distances are large, access to emergency health care is a particular challenge.

For over 20 years the Organization for Economic Cooperation and Development (OECD) has examined differences in patterns of economic growth across the regions of its member countries. Regions are defined by administrative boundaries, such as states/provinces or the next lower administrative units, counties or other similar formal administrative units. The OECD assigns regions into one of three broad categories: predominantly urban, intermediate and predominantly rural. In all three categories there is a mix of urban and rural populations, with differences in the share of population living in a rural or urban environment determining into which category a specific region falls (OECD, 2016b). As early as 1994, the OECD discovered that differences among the member countries in terms of economic growth were smaller than were differences in economic growth across the regions within a country (OECD, 1994). Moreover, while predominantly urban regions generally had better growth performance than did predominantly rural regions, a significant share of predominantly rural regions had better growth performance than the urban average.

These findings on urban rural growth patterns also hold at various levels of sub-national geography. In a Canadian context, the levels and rates of economic growth among the provinces vary considerably, but so too do levels and rates of growth within any given province. Indeed, as the scale of geography is reduced from the province to multi-county regions and then down to counties or similar sub-regions, the degree of variability in growth rates increases. Why is this important? Ultimately, national economic growth in Canada, and all other countries, comes from aggregating provincial growth up to the national level. But, in turn, provincial growth comes from a parallel adding up of sub-provincial growth. This means that if growth rates can be improved in lagging regions, there are benefits to provincial and

national growth. As the OECD has observed, a small number of large-population urban regions, like the GTA, account for a disproportionate share of economic growth across the OECD, but an even larger share of growth comes from the very large number of small-population regions that account for the vast share of territory and the majority of the population (OECD, 2012). If economic growth can be enhanced in those smaller regions where it is currently weak, this not only leads to clear benefits for the residents of these regions, but also for the provinces and nations in which they are located.

The Importance of Place-Based Policy

An important implication of the OECD work is that place-based policy can play an important role in efforts to improve regional growth. Place-based policy recognizes that different regions need different types of support if their development is to be enhanced. This reflects a series of differences, some of which are geographic: terrain, climate, natural resource endowment; some of which are demographic: population size, workforce skill mix, educational attainment levels; and some of which are institutional: capacity of local governments, quality of services, etc. Place-based policies are relevant because we observe such large differences in economic performance within a specific country (Garcilazo, Oliveira Martins and Tompson, 2010). These differences exist despite the presence of uniform macroeconomic policy and other national social policies that are designed to support people, firms and communities in all regions.

In Canada, the national government operates a number of place-based regional development agencies that cover the country: Atlantic Canada Opportunities Agency; Canada Economic Development for Quebec; Federal Economic Development Initiative for Northern Ontario; Federal Economic Development Agency for Southern Ontario; Western Economic Diversification Canada; and Canadian Northern Economic Development Agency. The mandate of these agencies is roughly the same, but because the conditions in each territory served are different, their approaches and priorities vary.

The national government has already concluded that Ontario requires two distinct agencies — one for the south and one for the north — because the development opportunities and challenges are different. In a large and incredibly diverse province like Ontario, a parallel provincial approach that recognizes important differences in conditions and circumstances could be useful. In particular, in a federal system of government, where the national and provincial governments have different, but related, responsibilities, the territorial units Ontario chooses should probably be different than those adopted by the national government, but coordinated. This suggests that Ontario might have more distinct regions for its place-based policy, but ideally these regions would mostly align with the boundary between the two federal development agencies.

The most recent analysis by the OECD continues to show that as you descend in scale from states through provinces and districts, the degree of heterogeneity in measures of economic activity and economic growth increases (*The OECD Regional Outlook 2016: Productive Regions for Inclusive Societies*). But, as with prior OECD analysis, even at this lower level of geography there are high-performing rural regions. When examining productivity trends at the TL2 level of geography (provinces/states) from 2000 to 2007 the OECD finds “Rural regions accounted for over half of the top 10% fastest growing OECD regions in terms of labour productivity before the crisis.” (p. 163). Post crisis, rural regions fell from over half to 41 percent of the top 10 percent in the 2008–2012 period (p. 163). Moreover, while before the 2008–2009 financial crisis the top performing rural regions were evenly split between those relatively close to a metropolitan region and those that were distant from one, after the crisis most of the high-performing rural regions were located near a metropolitan region (p.163).

These results suggest that proximity to an urban area provides important benefits to rural firms and people even when the distance is too great for daily commuting. For people, it allows ready access to a broader variety of goods and services, while for firms it can allow integration into supply chains, better access to important providers of goods and services. For both people and firms, proximity leads to lower transportation costs. Indeed, the OECD finds that the majority of rural regions close to cities that are

experiencing increases in labour productivity are also increasing employment (p.165). This suggests that increases in worker productivity are not simply coming from capital-labour substitution, as firms replace lower-skill workers with machines. In contrast, in remote rural regions there is a stronger correlation between increases in labour productivity and lower employment. In remote regions, the natural resource sector and first-stage resource processing play a much larger role in local economies. In these industries, there is a long history of advances in technology leading to capital-labour substitution that increases output and competitiveness, but leads to fewer — although higher paying — jobs. Given this inevitable dynamic, that steadily reduces job opportunities while adding to provincial GDP, there is a compelling argument for public policy to better support the people in these communities whose livelihoods are disappearing.

A Typology of Rural Regions in Ontario

Statistics Canada provides a large amount of data at the level of Census Divisions that in rural Ontario largely correspond to counties or the successors to counties (Rural Ontario Institute, 2016). However, it is not organized in a way that is useful for forming regional economic development policy. In some cases, particularly in southern Ontario, counties still remain useful aggregations of local governments that can be used for economic development purposes, because they are still fairly homogeneous internally. However, in much of both northern and southern Ontario, counties are obsolete concepts for managing economic development. This has been recognized, both by the province through its decisions to merge counties into larger units, as it did in the Niagara Region and with the GTA, and by local governments that have chosen to merge into a unified urban and rural structure, such as Ottawa-Carleton or the Thunder Bay District. Crucially, while the units of analysis employed by Statistics Canada correspond to administrative boundaries of some sort, in rural Ontario they do not map very well into how rural people live and work.

Very few Census Divisions now have a sufficient degree of internal coherence to make them useful for defining economic development policy. In northern Ontario they are too large to have any shared opportunities and also lack any direct administrative capacity. In southern Ontario economic development has spilled across county and regional administrative boundaries in ways that make it impossible for local and regional government to develop effective independent development strategies. While metropolitan areas have a large enough local market to have endogenous growth opportunity and the capacity to manage their own strategy to enhance this growth, this is not the case for rural areas.

A consequence of this diversity and interconnectedness is the need for a new approach for managing rural economic development. If Ontario is to develop a place-based approach to rural policy, it is crucial that a typology of rural places be constructed. The essence of a place-based approach is that those places that are similar should receive similar treatment, but that treatments should differ across places that are dissimilar. In an ideal world, governments would provide a unique set of policy support to each place that was tailored to the specific resources, opportunities and strategies of that place. However, the overhead costs of developing and implementing this type of individually tailored approach are so large that it is impossible. But, just as the government of Canada has identified six distinct regions within the country and designed appropriate regional development policy for each region, it should be possible for Ontario to develop a similar handful of specific types of rural policy that are appropriate for sets of places with distinct but similar rural milieus.

The essential argument for a spatial approach to economic development policy is that the units of analysis should have similar economic contexts. Communities within a region have to have similar economic functions and opportunities. Absent this, it is impossible to think of a shared or regional development opportunity. In addition, if the province is interested in constructing development assistance that is focused on places with specific types of limitations and opportunities, it is important that groups of regions can be identified that are also similar. This allows a typology of places to be identified. Then a specific set of programs can be offered to all units (regions) that are similar, because within each of these regions there is also a strong enough degree of similarity that the set of programs

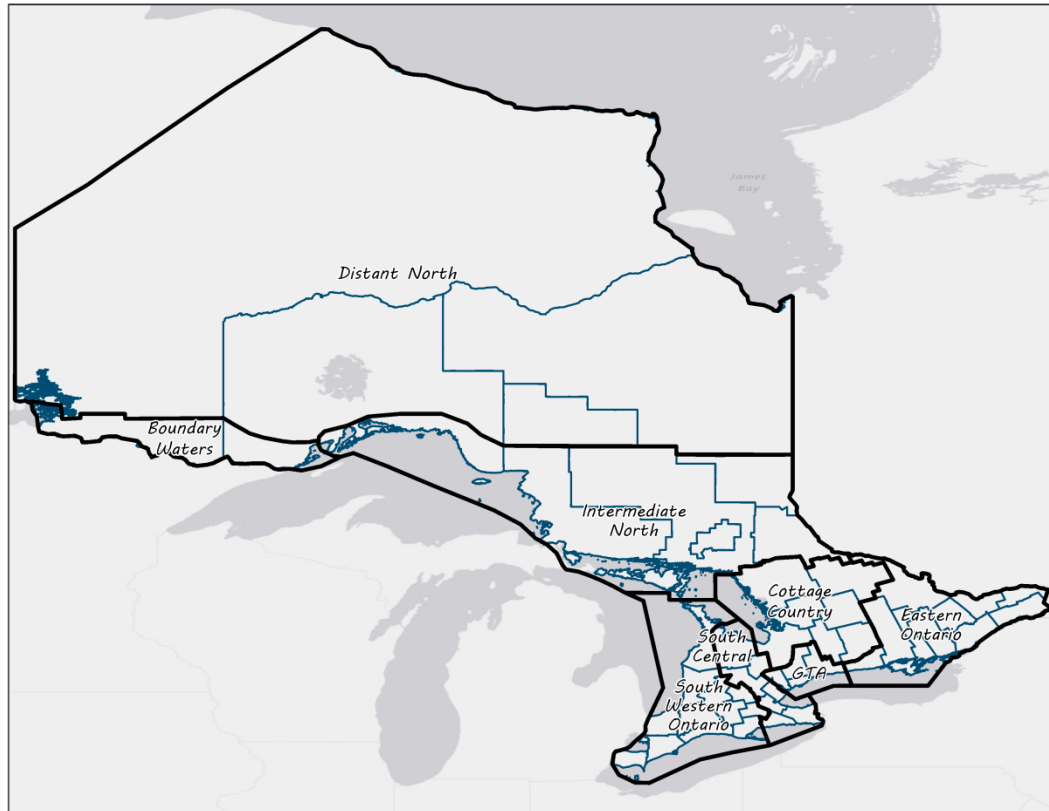
are useful to multiple communities.

Certainly it is more complex and more costly to have multiple types of rural policy than to provide a single uniform policy to all rural areas. One could also argue that a single policy treats all equally, which is one definition of fair. On the other hand, appropriate metrics for public policy most commonly emphasize both cost effectiveness and equity. Spatially differentiated rural policy may cost more to deliver, but if this produces better outcomes, the increase in cost may be justified. Similarly, where people or places need different things from government, it is better public policy to treat them equitably and not equally.

Typologies are simply a means to sort entities into a reasonable number of categories. In every typology the objective is to place those entities that are most similar into a single category so that within-category variability is low but across-category variability is high. Not only do we want those entities in a single category to be similar, we also want the different categories to be clearly different. Typically having only a small number of categories increases within-category variability, while a large number of categories reduces across-category variability. When thinking about rural Ontario, categories tend to be spatially compact, in the sense that communities that are similar are typically, but not always, geographically proximate. This reflects the fact that conditions in rural communities are highly influenced by climate, topography, distance and resource endowments, and these vary significantly across the vast territory of the province.

What is outlined below and in Figure 1 is a taxonomy of rural Ontario that follows the logic of Garreau's *Nine Nations of North America*. It reflects differences in geography, economic function, population levels and density, and access to urban agglomerations. The resulting regions can be called functional in nature since their boundaries reflect differences in how people organize and interact. This is a different approach than government typically uses when it draws boundaries for administrative purposes. Existing administrative boundaries are less important in shaping these development regions, if only because existing administrative boundaries generally do not take this type of spatial variability into consideration when they are set, or if they do, at the time the boundary was created, they fail to recognize changes over time that require boundary adjustments.

Figure 1: Regions of Ontario



The Proposed Taxonomy

Rural in the Greater Toronto Area (GTA) — The GTA dominates the provincial economy and is by far the largest urban concentration in Canada but it also includes a large rural area, much of which is protected from urban development (The Greenbelt). The rapid growth of metropolitan Toronto and nearby urban places in the last 50 years has transformed large amounts of previously rural land that was held by working farms into other uses. With increased urbanization, planning and zoning decisions now play a large role in land-use decisions. A consequence of this is that the public interest in land use, as identified in planning documents, can become a significant constraint on local economic development when planning decisions limit local action to achieve some larger public purpose (OECD, 2017).

While urban and rural interactions are important in other metropolitan areas in Ontario, the scale of these effects is vastly different in the case of the GTA, because of its sheer size and rapid growth. With the Greenbelt legislation in 2004 the provincial government intervened directly in land-use decisions in the GTA in a way that it had not done previously, nor subsequently in other urban areas where land-use decisions largely remain a local government responsibility. Crucially, this intervention was to preserve rural land from urban conversion, suggesting that, at least in the GTA, the province has identified the need for a spatial policy to preserve rural areas from urban conversion.

Although the spatial boundary of the GTA is reasonably well understood at any point in time, it is a boundary that changes with time as development expands the size of the agglomeration. Expansion brings rural areas that were previously not strongly influenced by the Toronto agglomeration under strong urbanization pressure. The Greenbelt has removed a large amount of land that was under pressure for development, but this has had a leapfrog effect on more remote rural areas (Vyn, 2012).

Rural on the Metropolitan Fringe — This is the only category in the typology that is not spatially contiguous because its members are adjacent to the largest cities in the province that are outside the GTA. The population and economy of Ontario are now mainly urban in nature. But in metropolitan areas,

a significant share of the territory is rural in nature and a strong minority of the population live in a rural environment. As in the GTA, these rural areas are tightly coupled to an urban place, specifically a medium-size urban centre (population over 100,000). In some cases both the urban and the rural area are part of a metropolitan or regional government (Ottawa-Carleton, Niagara) where planning and development decisions are unified across rural and urban areas. In other cases administrative boundaries can separate urban and rural governments (Windsor, London). In all cases rural is tightly coupled to urban — see OECD 2013 for linkages and issues. These regions are distributed across the entire provinces as autonomous units and are not spatially contiguous.

Cottage Country — A distinct area north of the GTA that has long been dominated by seasonal recreational housing forms a unique rural region. The area is centered on the Kawartha, Muskoka and Haliburton lake districts and bounded by the northern edge of Algonquin Provincial Park running across to Georgian Bay and up to Lake Nipissing. The southern boundary extends down to the outer edge of an expansive definition of the GTA, which is steadily moving north. While seasonal homes are common in Canada, Cottage Country is unique in terms of the sheer number of second homes, the value of the properties and the volume of weekend trips. Its growth is clearly linked to the growth of the GTA. It is characterized by huge seasonal population fluctuations, high income inequality between seasonal population and permanent residents. While forestry and manufacturing are important in some communities, the region is dominated by a single industry — seasonal tourism.

Boundary Waters — This is the territory in the southern part of northwest Ontario running from Thunder Bay to Kenora along the US border. Unlike the land further north, it is a relatively densely settled region with a mix of agriculture, forestry and tourism. Importantly, its western portion is more strongly connected to Manitoba than to the rest of the province in terms of economic and social linkages, and the entire region has a strong US influence. Relative to much of the north, Crown Lands are a somewhat less-important barrier to economic development. Administratively, the region is part of two very large Census Divisions, but this band of territory is significantly different from the remainder of these Census Divisions in terms of number and density of incorporated settlements and population.

Distant North — The region contains roughly all of Ontario north of the 48th parallel. The area is very sparsely settled, with mostly isolated small communities that are either First Nations reserves or mining sites. Weak transportation linkages and large problems in access to services characterize the territory. Settlements are, for the most part, isolated single-industry towns reliant on either transfer payments or a single mining company that offers limited employment opportunities. The area lacks a higher order level of regional government and relies upon the province to carry out these functions.

Intermediate North — This region roughly runs from north of North Bay to the 48th parallel and along the northern edge of Lake Superior. It is a better connected version of the Distant North with larger places, better infrastructure and more development opportunity but still mostly single-industry towns. Forestry and mining are important sectors.

Eastern Ontario — The region runs roughly from the Quebec boundary west to a line passing through Peterborough. In the past, the region was relatively densely settled and had a significant agricultural and manufacturing base that has declined over the last 50 years. Farmland abandonment remains a significant concern. Tourism is significant, but has a lower value than in other parts of rural Ontario. Some smaller urban places are doing relatively well but others are struggling as their economic function erodes.

South Central Ontario — This area consists of the Niagara and Kitchener–Waterloo regions and nearby places. Historically, rural areas in the region were farm based, but with a lot of off-farm income from the well-paying manufacturing sector, particularly in the automotive sector and in metal production and fabrication. Currently there is considerable variability in economic performance between the northern part of the region where economic conditions are still good and the local economy has adapted to NAFTA, and Niagara which largely deindustrialized after NAFTA and has become reliant on services and

agro-tourism based on wineries. A defining feature of this region is the strong influence of the GTA, although it is not currently a part of the GTA labour market.

Southwestern Ontario — The area lies roughly west of a line between Brantford/Paris and on up to Georgian Bay. It is mainly agricultural land with strong commercial farms and a few large urban centers. Manufacturing, although significant, was less dominant than in south central Ontario and concentrated along major highways. The recent loss of manufacturing, especially first-stage agricultural processing, has had negative direct employment implications and is an impediment to high-value farm production. Tourism is significant along the lakes and in communities like Stratford but is not generally a key sector.

The typology set out above is relatively rudimentary, but it serves to demonstrate that there are distinct rural types in Ontario that have important differences in geographic situation and in opportunities and constraints. Adopting any typology of rural brings the benefit of recognizing that while rural Ontario is diverse, there are significant similarities among parts of this huge territory. Adopting a typology of rural provides government with a framework for organizing public policy to support economic development in the different types of rural Ontario. Without a typology, the best that government can do is either assume that rural is homogeneous, which leads to relatively ineffective policy, or try to deal with individual communities or regions on a case-by-case basis, which can lead to fragmented and inconsistent approaches.

Towards a Spatially Sensitive Rural Policy for Ontario

Balanced economic growth is often seen as more desirable for long-term stability and equity purposes (OECD 2012, Barca McCann and Rodriguez-Pose, 2012). Obviously at a macroeconomic or provincial level, spatially balanced growth is difficult to address since territorial variability is inherently masked by the level of analysis. It is only when the sub-provincial or regional level is considered that concerns with where and how growth is occurring, and where the benefits of growth are occurring, can be addressed. Moving to a provincial strategy that achieves better balanced growth across different parts of the province requires first identifying appropriate regions and then introducing sets of coordinated and effective policies that can support growth within the various regions.

To be sure, a balanced growth approach may not result in maximizing aggregate provincial growth, because the different parts of the province will have different growth potential and growth rates. But relying on only a few regions for growth is inherently risky because these regions can experience cyclical downturns, it can lead to large transfer payments from wealthy to lagging regions that offset the effects of faster growth and unbalanced growth reduces social cohesion. If labour and other markets were completely flexible, it might be possible that sufficient movement of people from lagging to leading regions would restore more balanced growth. But there is a lot of evidence in Canada and other countries that, although migration flows are significant, people do not move as easily as simple economic models assume (VanderKamp 1971; VanderKamp 1986; Grant and VanderKamp 1986; Molho 1986; Polese 2013; Amirault, de Munnik and Miller, 2013).

Ontario is currently experiencing highly unbalanced growth, with only the GTA and a few other urban centres experiencing high rates of growth in population and economic activity. Meanwhile, other parts of the province are seeing declines in population and output. This experience is not unique to Ontario. Other provinces, such as Quebec and British Columbia, are also seeing growth concentrating in their largest cities (Markey, Halseth and Manson 2008, Polese, 2013). Similar experiences can be found in Scandinavia and the United Kingdom. Most OECD countries with this phenomenon are trying to put in place ways to broaden the growth base and support more balanced growth. Notably, the European Union has long used regional policy as a way to strengthen cohesion within the Union. Although there has been considerable criticism of some of the specific policy instruments used by the European Commission, there is evidence that the programs have strengthened economic activity in lagging regions. Similarly, Quebec has a longstanding commitment to improving conditions in rural areas, initially through the Pacte Rurale from 2002 to 2014, and more recently with a new rural policy introduced in 2014 that

continues provincial support but devolves most responsibility for economic development initiatives to regional government (OECD 2010: Jean 2014).

For Ontario, a key challenge is identifying spatially differentiated policy approaches that recognize the diversity of condition across the province. Diversity comes in many forms. For urban policy, there are clear differences between the GTA, urban places adjacent to it, such as Hamilton and Kitchener-Waterloo, and urban areas in the rest of the province, including the National Capital Region, London, Sudbury and Thunder Bay. Similarly, there are large differences across the rural parts of the province that will require similar spatial sensitivity in policy approaches to achieve more balanced development.

The regional typology set out above is one way of identifying regions but it is not the only way and may well be inferior to other approaches. What is clear from the experience of other nations and provinces in trying to define useful sub-provincial regions is that this is a task that cannot be performed by a few ministries in provincial government acting independently. Getting the boundaries right is important because if the people and places in a region do not believe that the defined boundaries of their region are appropriate, they will be unlikely to engage in collectively working to strengthen its economy. Similarly, where regions are not well defined, investments by the province and others can spill out of the target region into other places where they may not be appropriate influences.

People-Based and Place-Based Policies

There is a tendency to see development policy either in terms of supporting people or in supporting places as a way to indirectly support people. More appropriately, some types of policy are better delivered through direct efforts to assist people while some other types can be more effectively delivered through the places where people live, because the people in those places collectively benefit from this approach. In general, policies that accrue to individuals are better thought of as person based. These include: education, health care and many social services where there are clear minimal standards that all individuals should have equal access to, irrespective of where they live. However, while people everywhere in Ontario should have equal access to these services, they may be delivered differently in a large city than in a small remote rural town. At a minimum, people in rural areas will have far less choice about how they receive services, or from whom they obtain them.

Other public services, such as, public safety and infrastructure: water, broadband, electricity etc., are delivered where people collectively access them. In rural areas, fire protection is commonly provided through a volunteer fire brigade, while in cities professional fire fighters are hired by the community. Rural residents pay more for electricity because the costs of delivering it are inherently higher in a low-density environment. Larger urban places have local police forces while rural residents rely on the Ontario Provincial Police. Urban regions have public transit systems, but where bus service exists in rural regions it is typically a private service.

The distinction between place- and person-based approaches is especially important for discussions of economic development. Person-based approaches tend to focus on skill development as a way to increase the earnings potential of individuals and on increasing mobility so that people can move from places where unemployment is high to places where jobs are plentiful. This is an important activity and is a key part of improving labour market outcomes. However, it is also important to understand why unemployment is high and incomes are low in a region. These phenomena may be the result of some other barrier to economic growth. For example, if funds for business development are difficult to obtain in a small and remote community, firms that could create jobs and income will not develop. In this situation encouraging people to move to other places when they might prefer to stay can be an inferior solution to the problem.

Recognize Linkages Among and Within Regions

While any regional typology creates boundaries between different territories, these boundaries are only

meaningful in specific contexts. In other contexts they may not be useful. Regions are not autonomous units. They are open to a wide range of flows and are part of larger systems. Every region in Ontario is part of the province, part of Canada and part of North America. In particular, some rural regions are tightly coupled to large urban places. Obviously those rural regions that are in close proximity to metropolitan regions are tightly integrated into that system, even though they may have a distinct local labour market (OECD, 2012). Linkages can also occur in other ways. Cottage Country is a region that is defined by a particular relationship with the Greater Toronto Area. It exists as a distinct region because of the large flow of urban residents who make weekend and seasonal trips to a cottage in the region. Without this flow it would have a different identity and different characteristics. Similarly, parts of the Boundary Waters region especially around Kenora and Lake of the Woods, also rely on seasonal summer residents, mainly from Winnipeg.

Proximity to even a medium-size city provides rural people with access to goods and services that are not available in their community. This is one of the basic differences between rural life in southern Ontario, where settlement density is high, and northern Ontario, where settlements are distant from each other and most small communities do not have easy access to a larger urban place. It is also an important reason why a spatially differentiated rural policy is important if people in Ontario are to have equitable access to vital goods and services.

Proximity, however, does not mean that rural challenges are not present. Rural areas within a metropolitan region are the most integrated with urban territory but can face important challenges in having a voice in local governance. For example, when the City of Ottawa merged with the rest of Carleton County to create a unified government, there were clear challenges in absorbing a huge territory into a local government that was oriented to delivering services in a purely urban context. Extending fire protection and emergency services to rural areas was an immediate concern. More importantly, perhaps, was adjusting a city council electoral process to the new regional reality. The initial approach, driven by the city, was to extend Ottawa's existing wards out into the new rural territory. This approach effectively diluted the rural vote so that rural residents were a minority in every council district. A challenge raised by rural residents to the Ontario Municipal Board overturned this approach and required a new districting process that improved the likelihood that rural residents would have an elected voice at the council.

Regions can be a useful organizing principle for understanding how communities in a similar geography share similar characteristics. However, within any region there will be places that are prosperous, others that are doing all right and others that are struggling. Community-based policy has to sit somewhere below regional policy and drawing a line between regional policy and community policy can be challenging.

Conclusion

Ontario has become a highly urbanized province over the last 50 years, but it continues to have a significant rural population and the vast majority of the land in the province is either not settled or has a low-population density. Not unexpectedly, the change to a mostly urban population and mostly urban economy has led to provincial policies that are urban oriented. Yet there are clear economic development opportunities in rural Ontario that could benefit both the people living in these areas and the province collectively. To realize these opportunities will require the introduction of a policy framework that supports local rural development initiatives. In this regard, Ontario is similar to other parts of the OECD where there are similar ongoing challenges in identifying appropriate policies to support rural growth.

Moreover, because the vast majority of rural land in the province is Crown Land, and because municipalities and other local governments are limited in their authority and actions by provincial law, there is a clear need for a proactive provincial role in supporting local economic development. The sheer size and diversity of rural Ontario means that for any policy to be effective, it has to deal with different

types of rural places in different ways. For example, opportunities in farming areas in southwestern Ontario differ from those in the mining belt near Sudbury.

In turn, this means that if the province is to have an effective territorial approach to supporting rural development it must first improve the way that it understands the nature of rural Ontario. This will require identifying how the various parts of rural Ontario differ from each other and what their challenges and opportunities look like. The taxonomy suggested in the paper is at best an illustration of what is required. It is offered as a way to stimulate thought about how a more effective rural policy might be developed.

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NORTHERN PERSPECTIVES

Growth Beyond Cities: Place-Based Rural Policy Development in Ontario

Charles Cirtwill & Emma Helfand-Green¹

The implementation of place-based policies has the potential to significantly improve the ability of communities and regions to foster economic development and to achieve other important outcomes in northern Ontario — especially in rural areas. For decades, there have been calls for northern Ontario to be self-governing due to its vastly different climate, geography, size and industrial structure (see Mackinnon 2015 & Robinson 2016) from the rest of the province. These calls come from a belief by northerners that the needs of northern Ontario have not been recognized by decision makers and that the uniqueness has not been accounted for in policy making and program delivery.

Furthermore, as described in Freshwater's report, northern Ontario's rural communities and areas differ significantly from rural communities in the south — especially given the vast geographic area of the north (which is larger than the size of France) which results in significant challenges related to infrastructure and transportation. Thus, place-based policies allowing for more regionally specific decision making can not only improve outcomes for rural and northern areas, but also foster a sense of self-determination among community members.

Freshwater highlights that the provincial government can benefit from a better understanding of the true nature of rural Ontario by becoming more familiar with economic opportunities, infrastructure availability, population trends and other characteristics in the diverse regions of northern Ontario. This sentiment is echoed in a recent report by Charles Conteh (2017) that also discusses the importance of place-based policy making for northern Ontario specifically. While Freshwater defines three regions in his taxonomy of rural northern Ontario: the Boundary Waters, the Distant North and the Intermediate North, Conteh (2017) identifies 12 economic zones or clusters in northern Ontario. More specifically, through his analysis, Conteh names six city regions: Kenora, Thunder Bay, Sault Ste. Marie, Sudbury, Timmins and five industrial corridors: Fort Frances, Manitoulin, Marathon, Parry Sound, Temiskaming Shores, and the Far North as unique clusters in northern Ontario with shared opportunities and economic advantages.

Although Conteh and Freshwater present different numbers and composition of the regions in Northern Ontario, both drive home an important point — the north is not a single, resource-dependent, monolithic economy. Opening up a dialogue that sees rural and northern communities as diverse, and requiring a range of solutions rather than a one-size-fits-all approach, is a critical first step for developing appropriate place-based policies. Furthermore, the identification of regions or zones in rural Ontario can help communities collaborate to achieve common goals. As Freshwater notes, if the government does not employ a typology, the best they can do is consider that rural Ontario is homogenous, or deal with individual communities and areas on a case-by-case basis, which can lead to fragmented and inconsistent approaches (p.13). Similarly, Conteh elaborates that structures to enable place-based policy making "need to target the specific assets and challenges of economic clusters" (p.28). Overall then, the authors highlight the need for both the provincial government, and local governments and structures, to think more carefully about locally based strategies to reflect shared needs.

These findings are absolutely critical to the effectiveness of future government investment and regulation of the economies in the north and other rural communities. Ignoring these realities risks ignoring the potential growth and comparative advantage to be found in each separate region. It will be

¹ The authors gratefully acknowledge the contributions to this piece made by James Barsby.

interesting to see if the newly endorsed “northern Ontario” committee in the Ontario Legislature will encourage place-based policy making in northern Ontario by acting as a “northern lens” on various policy and governance issues (Slattery 2017) and whether this new committee will recognize the diversity of the regions of northern Ontario.

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The Impact of Megatrends on Rural Development in Ontario: Progress through Foresight

Michael Fenn

Introduction

Recent research has identified six major trends — so-called Megatrends and eleven specific impacts of those trends — that will likely affect Ontario over the next two decades (Fenn, 2016). To a large extent, these impacts will be felt in infrastructure and related economic activity, but there will be equally important impacts on society and communities, the environment and public policy.

Too often Ontario's discussion of the future focuses on urbanization, globalization and cities, but the impacts on rural communities and the rural economy will, if anything, be even greater.

Rural and northern Ontario face major societal and economic changes in response to emerging megatrends. By anticipating these trends, rural Ontario can deal with them realistically — both anticipating the need for mitigation and identifying the opportunities that come with disruptive change.

However, there is no single, universal "rural" experience in Ontario. Issues in rural communities that are becoming suburbs are unlike those of communities in more remote locations. The issues facing northern and eastern Ontario rural residents are often qualitatively different than those facing southwestern Ontario rural residents. Those engaged in agriculture have a different range of challenges than those involved in other aspects of the rural economy or professions. But they all share many common and fundamental challenges. This is particularly the case with infrastructure and its impact on all Ontario rural communities.

We must also be modest and realistic in our efforts to anticipate the future. A lot can change in a couple of decades or several election cycles. For example, in 2000, millennium discussions did not mention global terrorism or a surplus of oil, neither the iPod nor the iPhone existed and GPS was for aircraft and cruise missiles.

We may be challenged to better understand how emerging trends will affect rural Ontario and its infrastructure over the next two decades. However, we can draw on evidence-based experience to guide us. As jurisdictions like Scotland have demonstrated (Skerratt, 2014), research can prove a useful tool when making practical choices.

Infrastructure's Role in Rural Ontario, Past and Future

Infrastructure in all its aspects is the nervous system of a successful modern society. Historically, Ontario's prosperity and quality of life stand "on the shoulders" of those who invested in public infrastructure and maintained it. Our generation (the Baby Boomers), however, has not been sufficiently committed to that proven course. Our public and private budget priorities have often been focused on other needs and desires, at the expense of infrastructure and the economic and social dividends that it pays. In both urban and rural Ontario, we are burdened with an "infrastructure deficit" that acts as a drag on our productivity and quality of life.

Somewhat belatedly, we have come to recognize the importance of restoring our public and economic infrastructure. We now recognize infrastructure's contributions to revitalizing our economy and to meeting the needs of a changing society. Governments at all levels are planning major investments and institutional investors (e.g., public-sector pension funds) are being invited to join in those efforts.

Will these efforts be primarily focused on urban regions, or will they include rural and northern

communities, as they did in the era of highway building and rural electrification? Does it still make sense to replicate the infrastructure networks and facilities supporting the economy of the twentieth century in rural and northern Ontario? How can communities facing economic or population decline use their resources and innovation to leverage the potential investments of others?

Understanding Megatrends and their Impacts

What are the "Big Six" Megatrends that will affect Infrastructure?

Based on research and analysis, several major trends have been identified that will affect infrastructure and infrastructure decisions over the next two decades. While various analysts have identified different trends or suggested more or fewer trends (Avent, 2014; Richard Dobbs et al., 2015), there are six megatrends particularly worth watching for their impact on infrastructure, and correspondingly, for infrastructure's impact on society and the economy (Fenn, 2016, p. 19-42).

1. Technological Trends and the Pace of Technological Change

At its heart, infrastructure is technology. As a result, technology trends will most conspicuously affect infrastructure. In particular, the pace of technological change can be even more important than the technological changes. Recent trends in technology in all fields have taught us a common lesson: many of our conventional assumptions and established practices can be swept away in a very short period of time by the advance of new technology — and the public's embrace of it. "Exponential growth ... looks negligible until it suddenly becomes unmanageable." (Avent, 2014, p. 4)

Technologies are tools without an agenda of their own, but their influence on society is never neutral. They blindly sweep aside the livelihoods of some people and enrich others. Politics must craft rules and institutions that harness technology to suit society's values and vision of itself (Avent, 2014, p. 18).

Technology can come to the rescue of the mounting problem of deferred maintenance obligations in rural waterworks, bridges, arenas and other public infrastructure, which now also burden the financial balance sheets of municipalities and public agencies. Nano-sensors built into roadways, bridges and under-road water and sewer networks, along with the expanded use of drones and other monitoring/inspection technology, will enable a more targeted "no-surprises" approach to maintaining existing infrastructure.

One of the challenges of rural and northern communities has always been the impact and cost of distance and sparse population. Contemporary technology will change that, especially with the infrastructure we use to support a variety of societal functions. Despite the rising cost and demand for health care and education, will we still need the expensive bricks-and-mortar facilities that we traditionally use to deliver these programs? Conventional social infrastructure — health, education, custodial facilities and housing for the elderly — may see big changes. Digital technology can bring global resources and the best minds in health, education, skills training and agricultural enterprise, readily and inexpensively, to every rural community and to every farm kitchen.

2. Urbanization, Globalization and Connectivity Trends

In their book, *No Ordinary Disruption: the four forces breaking all the trends*, McKinsey analysts include urbanization as one of the great forces that will affect all of our lives in the future (Dobbs, 2015). Advances in "intelligent" transportation technology will change the face and the future of our urban centres and the transportation and energy infrastructure that serves them (or fails them). Emerging technologies will change the ground rules and conventional assumptions. Land-use policies favouring compact urban form — for reasons of infrastructure efficiency and to reduce pressure on adjacent agriculture and natural areas — may need to undergo a fundamental re-evaluation. New developments already on the horizon paint the picture: driverless and shared electric vehicles;

automated inter-urban trains; and, internet-sourced sales and distribution networks. They will all combine to make living in small-town Ontario a practical option — for the first time— for many city dwellers facing high housing costs or retirement and, particularly, for entrepreneurs and professionals seeking to combine lifestyle and economic competitiveness.

Globalization trends will remind us that neither Ontario nor North America is an island. The growth of middle-class markets in the once seemingly far-off lands of China, Indonesia, India and Brazil will see a repositioning of supply chains to respond. We see it already. Once the focus of the steel industry's Great Lakes shipping, Hamilton Harbour's fastest growing commodities are now Ontario agricultural and processed food products destined for the Far East. Trump-inspired trade barriers could change our traditional markets, our patterns of commodity production and distribution, and even the wider "markets" for our post-secondary and healthcare institutions.

Correspondingly, commercial, environmental and political developments that were once safely on the other side of the world will increasingly affect our daily lives, much as the revolution in consumer products and durable goods manufacturing has altered North America's relationships with Asia and Mexico over the past three decades.

3. Social and Demographic Trends

Demographers have pointed out that since the Baby Boom generation learned to walk, Ontario's patterns of social demands — and related infrastructure demands — can be tracked closely to the annual aging of the post-war demographic cohort. Elementary and secondary schools built decades ago progressively empty, facilities for the frail elderly are in greater demand and someone in North America is turning age 65 every seven seconds.

Healthcare delivery will need to be integrated across the continuum of care, from primary care, diagnostics and specialists, through hospitals and community care, to long-term, hospice and palliative care. Institutional barriers, professional silos and the unintended barriers to care created by our health privacy rules will be eroded by technology in the hands of both providers and patients. This evolution is proving difficult in metropolitan settings, but it is a role already played well by rural hospitals and clinics.

Community-based services in rural and northern communities face the same financial pressures as any public entitlement program. Mass public entitlement programs, such as Medicare, the Canada Pension Plan (CPP) and large public pension plans, depend on a demographic pyramid where multiples of younger workers at the bottom of the pyramid support the benefits paid to older citizens at the demographic apex. When the pyramid begins to narrow at the bottom, the medium-term fiscal and social consequences can be dramatic.

With falling fertility rates in big cities and elsewhere, the need for more immigrants becomes acute, both to attract talent and skilled workers (and taxpayers), and to recruit less-skilled workers to support the health care and lifestyles of an aging population. But not since the beginning of the twentieth century has immigration been seen as the solution to the economic and social pressures facing rural Ontario. For a century, agricultural productivity gains and family succession have allowed farm operations, agribusiness and small-town commerce to cushion the impact. In recent decades, an unwillingness of the younger generation to stay in rural communities has eroded the vitality and even the sustainability of rural Ontario.

But that may be about to change. Out-migration from the cities, including first- and second-generation immigrants, may be a feature of the revitalization of rural communities and "second tier" urban centres. Sustained and expanding working populations may well be the key to keeping rural infrastructure viable.

Along with large-scale immigration, however, comes the domestic social and political reaction to the societal changes that other cultures and other values bring. Chancellor Angela Merkel may have reversed

the decline in the proportion of workforce population in Germany, but it will come with social and political consequences.

4. Economic and Workforce Trends

Consider our recent experience, where telecommunications and online marketing have increasingly overtaken the in-person retail experience, in areas as diverse as newspapers and magazines, consumer-products retailing, travel bookings, culture, sports, entertainment and department stores.

A century ago, every small town had a bustling commercial core, a number of churches and well-patronized public facilities. Today, many of those retail, institutional and entertainment functions have declined or disappeared in small towns.

If conventional commercial retail ceases to be the focus of our cities, suburbs and small towns, and if automated vehicles don't require ample parking and automotive infrastructure, what will take their place? Should we start to consciously re-design our rural centres, using infrastructure that produces new and different rural communities?

While the rate of unemployment has been declining, Ontario's obsolescent jobs are being replaced with large numbers of less well-paid and less dependable service-sector jobs. Particularly in smaller communities, this shift in employment profile means lower capacity to pay taxes for things like infrastructure and, correspondingly, more demands for public services that support lower-income citizens.

Some are suggesting that we may see a resurgence of manufacturing in North America, including Ontario. Political pressure, re-imposition of tariffs, attenuated Asian supply chains, geo-political instability and a desire to have some percentage of product suppliers ready-to-hand, could combine to influence corporate decisions. Before the widespread decline of Ontario's light manufacturing base in the 1980s, both domestic and foreign manufacturers were known to favour locating in space-extensive rural settings, with ready access to labour markets that boasted the practical skills of rural workers, without a tradition of industrial unionism.

5. Environmental and Energy Trends

Disturbing trends are appearing that affect environmental and energy infrastructure across rural and northern Ontario. Sanitary sewers, stormwater and agricultural drainage systems are increasingly incapable of managing periodic extreme weather events. Water quality issues continue to plague our First Nations communities, small communal water systems and septic systems on farms and in cottage country.

Water quality and availability are also emerging as major issues across North America, as others look enviously at rural Ontario's aquifers and surface water assets. However, cost-effective solutions may be around the corner. Environmental impacts and their high remediation costs using old technology are motivating new approaches.

Energy infrastructure will be under increasing demands from burgeoning electronic communications and electricity-powered transportation, with pinch-points in transmission and increasing demands for higher (millisecond) tolerances in electricity stability. A benign combination of favourable public and tax policy, technological progress and rising electricity costs will also give rise to a wave of localized micro-generation, from inexpensive rooftop solar generators to district heating and cooling systems (*The Economist*, 2015). Areas of rural Ontario have been in the contentious forefront of this new generation (and storage) activity, both in wind and nuclear. Among other things, it may change the business cases for building more transmission capacity and for attracting commercial investment to locate nearer the source of the power.

6. Political and Fiscal Trends

At the fulcrum of all of these trends lie government and the public purse. How will these megatrends affect those charged with the responsibility for leading change and mitigating its impacts? *The Economist* emphasizes the need to act in a way that is not an historic peacetime strength of governments: to be nimble and rapid in their evaluation and response to demands for the right infrastructure. Of equal importance, governments need to create the right social and economic policy environment to plan for and correctly select infrastructure by type and priority (*The Economist*, 2014).

Technology is also helping compensate for labour displacement and the loss of major industrial and service employers. Like Uber in the cities, online services like Etsy and Airbnb have democratized the local and global marketplace for rural Ontario, for everyone from vehicle owners and tourist operators, to craftspeople and organic growers. In June 2015, the BBC profiled how impoverished, traditional sari-makers in rural India were using basic CAD and web-based global “fulfilment” to earn much higher salaries than ever before. If rural Indian seamstresses can penetrate the large South Asian community in Britain, it should certainly be possible for rural Ontario enterprises to find markets for their products and services throughout urban North America, provided the infrastructure to support that activity is in place and barrier-free.

What will these Six Trends do to Planning for Future Infrastructure in Rural Ontario?

By reflecting on these megatrends and their own experience, rural Ontarians can better anticipate, prepare for and seize opportunities, early and with more confidence. Of equal importance, they can more easily pre-empt, deflect or mitigate the avoidable risks.

Here are eleven potential impacts of these megatrends.

Impact 1: Distances will Shrink

Distance and a perception of isolation have long been the burden of daily life in rural and northern Ontario. But that is about to change fundamentally. The internet does not care about distance and it does not charge based on distance or volume of customers.

The desire to move goods, people and information quickly, efficiently and economically across a region or across the world will continue and accelerate. Much of this shrinkage in distances will be abetted by new technology, from the Internet of Things (Howard, 2015a, 2015b) and 3D printing, to high-speed trains and low-cost autonomous vehicles.

In addition to the obvious positive aspects, shrinking distances will have a number of disruptive manifestations. It will expand the reach of urbanization by allowing long-distance commuting and the development or redevelopment of residential communities and business centres at some distance from major urban centres. It will pit local businesses against digital businesses and big-city competition.

These developments will have implications for Ontario’s Greater Golden Horseshoe Growth Plan and Metrolinx’s Big Move Plan, both of which are heavily influenced by concentrated and concentric growth assumptions that may not prevail in the future. Conversely, it could cause some rethinking of the underlying assumptions in the Growth Plan for Northern Ontario (Northern Ontario Growth Plan, 2011). While it may be a problem in metropolitan areas, these “reverse migration” trends could revitalize rural centres and boost employment options for rural residents, including young people.

Impact 2: Elapsed Times will Shrink

Like distance, the time lost in travel and poor connectivity has plagued rural and northern Ontario since the days of Mowat’s settlement of New Ontario. That, too, will change.

Based on their experience with telecommunications and e-business, users of infrastructure will transfer their expectations to public systems, activities and processes. Rural Ontarians will expect infrastructure and the programs it supports to perform instantaneously and simultaneously. They will not accept the pace or the sequence preferred by the public-agency provider. Based on their experience with the commercial world, they will be less inclined to accept that things must take longer, or be more limited, or be less accessible, when serving more remote locations. Demands will grow to deal with cycle-time issues, like reduced waiting times for medical services and more competitive transportation options. These changes will have dramatic implications for the design, location, operation and, especially, integration — convergence — of infrastructure serving rural and northern Ontario.

Impact 3: Scale will Shrink

Moore's Law predicted that miniaturization would exponentially expand the processing capacity of computer chips. The same pattern will be seen in the next generation of infrastructure. Lightweight, environmentally beneficial materials, energy-efficient systems, functions linked with robotics and radio-frequency identification (RFID) communications, and small-footprint engineering and architectural designs made possible by nano-technology, will all be features of the new infrastructure.

While some grand infrastructure projects like those of the past will doubtless be needed, modesty and restraint will be important characteristics of local infrastructure and infrastructure affecting designated natural areas. The constraints that "NIMBY" has imposed on our land-use planning and environmental assessment processes will cause us to rethink the scale, scope and impact of infrastructure (to say nothing of timing). While more defensible, the duty to consult with Indigenous peoples will also have an impact on the timing and scope of infrastructure projects.

Tweaking, refurbishing and technical innovations to improve existing capacity will stand equal with the big signature project or the innovative new design. To win its social licence and political and legal approvals, the new generation of infrastructure will often need to be unobtrusive, make minimal impact and confer conspicuous and compensating benefits, ideally at a competitive cost. However, the unique ability of rural communities to sit around a single table and reach consensus on a course of action could be a significant tactical advantage, in relation to the increasingly fraught decision-making environment for infrastructure investment in major urban centres. Smaller scale, more adaptable infrastructure is also much more suited to a rural community than a metropolitan centre.

One of the most significant implications of a "small is beautiful" approach is to ensure that existing systems are maintained in good working order and a state of good repair, extending their useful life where possible. In many rural communities, the infrastructure already exists, but the need is to refurbish and sustain existing infrastructure and to maintain its customer base, rather than to build entirely new basic infrastructure. This may be less glamorous than new projects yielding shiny new infrastructure. Ideally, we should be able to prioritize our investments, to achieve the greatest rate of return. Unfortunately, some of our biggest infrastructure assets lie below the ground, where they are difficult to monitor, hard to maintain and easy to neglect.

Recent government efforts have aimed to improve the asset-management practices of all municipalities. Even very small municipalities have been required to inventory their infrastructure assets, for both the municipality's balance sheet and the annual work plan — many of them for the first time. They have also been required to prepare asset management plans, in order to schedule and budget for regular maintenance and rehabilitation (Fenn, Burke and May, 2015).

All of this activity gives us reason to hope that infrastructure repair and refurbishment investment can be more targeted. We should aim to ensure a full lifecycle approach for past public investments and to put off major new infrastructure investments until, and if, they are needed. However, asset-management plans also provide sobering evidence of the degree to which we have neglected infrastructure over the years. They illustrate the need to be wise and to use evidence-informed investment choices, with the

limited funds available to the public sector for these purposes. They may also demonstrate that rural communities need new governance/organizational models to deliver and share the cost of basic infrastructure, particularly in northern Ontario.

Impact 4: Functions will Converge

Arising from their experiences with smart communications, both society and the marketplace will push mergers and interfaces between previously separate and even previously unrelated providers and organizations. This will have significant implications for the providers of infrastructure and for the ability of infrastructure to provide a suite of functions, rather than a single, closely related set of services or individual functions. In general, the public cares less about the ownership and provenance of an infrastructure service than they do about the quality, availability and flexibility of a service. (More simply, they won't care whose name is on the truck or the mobile site, as long as the service reflects good value.) But in rural Ontario, experience says that consolidation means jobs and suppliers leaving the local community, and neighbourly customer service being transferred to a call centre in some far-off urban (even foreign) setting.

To understand convergence, look at healthcare delivery in Ontario, which represents half of the Ontario government's operating budget each year. In major urban centres, hospitals were largely developed to deal with acute episodes (childbirth, work and car accidents, heart attacks), as the formal term "acute care" facility indicates. Now our aging population increasingly needs care for chronic disease — protracted illness or end-of-life care. Other than for complex, tertiary-care procedures, community-based healthcare facilities often achieve the same efficacy as hospitals, with higher satisfaction levels, lower risk of collateral acquired infections and, of course, at a dramatically lower all-in cost. This is an approach that is ideally suited to the existing rural healthcare model. It gives rural communities an important head start in modelling integrated health care, and in assuring rural communities that their care is as good as, perhaps even better, than that enjoyed by their urban cousins.

Rural and northern communities are often Ontario's healthcare pioneers. Existing models, such as the Sault Ste. Marie Group Health Centre and Sioux Lookout Meno Ya Win Health Centre, or the multi-site hospital corporations of Grey and Bruce counties, demonstrate that solid health results can be achieved using this integrated, regional approach. In the spirit of technological convergence, a patient's health information will need to be available to the full range of medical practitioners, including pharmacists and nursing staff in long-term care homes. In future, up-to-the-minute healthcare data will be collected and available from monitoring systems on the patient's wrist or in the patient's home through to various clinical settings, as well as being accessible to the informed patient and/or their trusted caregivers and clinical casemanagers (*Macleans*, 2015).

In years gone by, these requirements would have been a major hurdle facing medical practitioners and patients, involving travel, delay and inadequate information. Advances in areas like diagnostic imaging and remote surgery have reduced the perceived risk of medical isolation, for both patients and healthcare providers in rural settings. All of this represents a revolution in the way in which we build healthcare infrastructure and health information systems, to say nothing of the way that we educate, recruit, deploy and reimburse our healthcare professionals and healthcare workers.

This convergence story could easily be repeated for other areas of the public sector, again with significant implications for traditional physical and technological infrastructure.

Impact 5: Margins will Shrink

For generations, rural residents have lamented the cost escalation that occurs between the farm gate and the grocery shelf, little of which finds its way back to the rural economy. Generation X, Generation Y, the Millennials and new international consumers are rapidly becoming the marketplace for rural Ontario's products. The public's willingness to pay a significant added premium on the price of goods and services as they progress through the value chain will be resisted — and ways to avoid them will be

sought out by informed consumers, app developers and new entrepreneurs. Global competition in other fields has taught these end-users and consumers that they have options, especially when quality, price or availability of products and services do not meet their expectations. With the internet, increasingly they and suppliers can go directly “to the source.”

In addition to mounting pressure on marginal costs, there will be increasing efforts to link the cost of specific services to specific clientele. In some respects, government services are society’s last holdouts in embracing the principles of user-pay or beneficiary-pay. Beyond charging fees or user charges, in government there will be efforts to exclude customers or beneficiaries who either do not pay enough, if anything, for a public service, and who have cost-competitive alternatives, or whose economic circumstances do not warrant public subsidy.

Finally, as is the case with the rise of electronic banking, online retailing and travel planning, the citizen-consumer will increasingly be expected to provide the labour and transaction processing previously offered by providers such as bank tellers, counter staff in offices and retail staff in stores. Crucially for rural communities, this eliminates the need for “critical mass” geographically. On the internet, a customer is a customer, irrespective of his or her location or geographic concentration.

Impact 6: Expect Individual Customization

We will see a rise in customer-focused individualization, including less interest in universal, boilerplate and warehouse approaches, from retailing and logistics, to transportation, education and health care. Processes organized for the administrative convenience or cost-efficiency of public-sector suppliers and providers, from health care to governmental programs, will be forced to reorient themselves to the customer’s unique and differing preferences.

Fortunately, everything from user-designed smartphone apps to regulatory reforms will make it possible to match consumer needs to infrastructure options.

Impact 7: Global Impacts will become Local Impacts

The markets for goods and services will reflect changing values and preferences, reflecting the growth of the middle class in emerging markets. An increase in immigration will also alter domestic consumer preferences, for things ranging from housing choice to education, as they did after the Second World War. Likewise, the ability to source goods, services and information from a global marketplace will devolve to the household level, with implications for things ranging from logistics and order-fulfilment to local production, domestic taxes and regulatory enforcement. With these changes and the connectivity of global commerce, there will be impacts on conventional fiscal arrangements — especially property taxation and user-charges on which rural municipalities depend — in much the same way as the private service sector has had to adjust its business models to survive.

Beyond consumer impacts, there are other types of global impacts on infrastructure and the environment, such as the accidental introduction of invasive species. With the experience of Ebola, Mad Cow disease, SARS and hospital-acquired infections, our infrastructure — from health care and transportation to marketing systems — needs to anticipate a need to control and manage contagions and to certify the provenance of products.

Impact 8: Climate Change will be Accepted, but will its Consequences?

Extreme weather events will become more commonplace. Ontario may not yet feel the full impact being experienced by other jurisdictions, like drought-stricken California or Australia, or the flooding in Alberta and southern Manitoba. But already, so-called 100-year storms are now regular events. We will need more resilience and redundancy in stormwater infrastructure, bridge designs, water and wastewater treatment facilities, and electrical distribution networks.

Will altruistic policy goals on climate change translate into changing consumer habits or political support for infrastructure-related initiatives? It will depend on their relevance, their political marketing and the tolerance of the average citizen. Ontario's move away from coal-fired electricity generation is still accepted as a positive move. Without more practical alternatives, will we see a similar acceptance in areas like automobile use, localized-energy generation and land subdivision?

Impact 9: Demographics will change Society's Priorities

As the Ontario population moves through the Baby Boom demographic, the political and market influence of the post-war generation will wane, despite its demands on social and healthcare services.

We will see less emphasis on bricks-and-mortar infrastructure, more focus on electronic communication, in-situ processing and 3D printers, and universal connections to the Internet of Things. This change of emphasis may have some positive aspects. Local theatre, the 100-kilometre diet and home renovations have less economic leakage than buying the latest South Korean entertainment technology or importing Chilean vegetables.

Impact 10: New Consumer-driven Urban Designs

As the cost of home ownership continues to rise, new models of urban residential accommodation will emerge and be sought out.

The likely prospect is that Ontario will move beyond simple intensification and natural areas preservation policies. Those policies are already generating both community resistance and, ironically, a re-emergence of metropolitan-scale urban sprawl. Our cities and towns will need to be redesigned and to build new models, reflecting family and consumer housing preferences. And as noted, where they have the option, many may look to life in rural and small town Ontario as a viable, attractive and affordable lifestyle alternative.

Impact 11: Short-term Thinking will Threaten Progress and Sustainability

As we try to look two decades into the future, we must acknowledge that our political, media and investment horizons have diminished, what with the 24-hour news cycle and business performance based on the latest quarter and the closing stock or commodity price. These are more often seen as concerns for corporate boards of directors and political candidates. However, this same "social-media attention span" will make it increasingly difficult to anticipate, manage and motivate decisions focused on medium-term and longer-term trends.

The bottom line, however, is similar throughout the developed world. For business, long-term considerations are increasingly subservient to the here-and-now. This economic and legal environment makes it difficult for farmers and other business people to consider future opportunities, and to invest with confidence in the future. In this atmosphere, governments at all levels must help. They must play their historic role: setting the rules of the game; promoting productivity and broad-based prosperity; and considering the future, not just the near term.

What are some practical implications of these eleven impacts?

1. New Types of Infrastructure

Infrastructure is not static. In rural Ontario, railways displaced canals, then highways displaced passenger rail and now the digital age demands new types of infrastructure. The most obvious recent addition to the portfolio of public infrastructure is the advent of rural broadband networks (Levin, 2017).

The next generation of infrastructure will also benefit from new technology by altering the nature, weight, lifespan and footprint of traditional infrastructure. For example, we generally assume that our

existing water and wastewater network is universal and standard. In many parts of the US, parallel grey-water systems are commonplace: piping lightly treated or recycled water for use in landscaping, agriculture, industry and other non-potable applications. The work of the Gates Foundation, while targeted at low-cost innovation in Third World sanitation systems (Gates, 2014), could easily produce a next generation of domestic sanitary sewage systems that would revolutionize our vast and capital-intensive wastewater infrastructure.

Heavy infrastructure, like electricity generation and distribution, hospitals and college buildings may be paralleled or even displaced by lighter, more flexible, lower-cost options. If so, the pace of infrastructure investment may accelerate and resistance to projects decline. The challenge may lie in distinguishing the next generation of new infrastructure from the fads.

2. Long-distance Commuting

The next generation of infrastructure users will expect to be able to move considerable distances regionally, rapidly, conveniently, frequently, safely and at low cost. Rising housing prices in major centres will be a factor as well. Many may want to live in one community and work in another, as their spouse/partner travels from home in the opposite direction for his or her work or study.

As many more Ontarians will be self-employed, and seeking work where they can find it, they will want to be able to serve a much wider market area. These are commuting patterns that are not anticipated in our traditional concentric or hub-and-spoke transportation models, in which we have continued to invest so heavily. These new commuting patterns are an example of the kind of individual customization that will be expected. They will conspicuously reflect themselves in small-town Ontario and in a resurgent demand for land-severances.

3. Light and Adaptable Infrastructure: The Impact of Convergence

Infrastructure that will accommodate a highly mobile society will need to be inexpensive to build, maintain and operate.

Many traditional public and community functions will converge; the result is that traditional segregations will make less sense. Customary distinctions may erode, like those between school systems by physical plant and bussing or in the justice field. Most conspicuously vulnerable to convergence are the distinctions based solely on geography, history or municipal ownership.

With the convergence of miniaturization, pre-constructed components and new building materials, the infrastructure of tomorrow will include more “light” infrastructure. It will have a shorter life expectancy, new materials and designs, more capacity to be adjusted to meet changing use patterns, demographics or economics, and with a lower environmental impact and price tag.

Paralleling light infrastructure is the retrofitting and repurposing of existing infrastructure to increase its resilience, its through-put or its life expectancy, as an alternative to the daunting task of securing approval for major new heavy infrastructure projects, networks and utility corridors.

4. Think Globally, Act Locally

We can anticipate innovations from elsewhere being adopted here, overcoming idiosyncratic homemade policies. We can also anticipate Ontario communities being sought out for their products and services from a global marketplace seeking quality and distinctiveness, provided our rural enterprises are open to those overtures. But climate change impacts and policies will also drive some fundamental lifestyle changes and added resiliency in our infrastructure designs.

5. Demographics and their Implications

The demographic challenges facing the labour market will intensify. Young taxpayers and pension contributors will be needed to support the cost of services to the Baby Boom generation. There will be increasing diversity in our rural population. In the future, immigration will reflect our need for the skills and innovative drive of offshore talent and, realistically, the personal caregiving needs of an expanding frail and elderly population. Given the global migration pressures of war and poverty, we may also be affected increasingly by the pattern of “informal” immigration seen in Europe and the US.

The prospect of governments building long-term care homes, palliative care wards in hospitals and similar infrastructure for the whole Baby Boom generation appears unsustainable under the present fiscal circumstances, especially since they are the wealthiest generation of seniors in history. Technological and medical measures to maintain the elderly in their homes and in commercial residences for the elderly will expand dramatically. Relocation to communities with lower-cost, ground-related housing and readily accessible health care will be an attractive option to prosperous but aging Ontario urbanites.

The Next Generation of Infrastructure

In examining and responding to impending trends within infrastructure and the trends affecting infrastructure, the role of government has always been central. From ancient times, it has fallen to civic authorities to design, build and operate crucial civil infrastructure. This mantle has included the obligation to anticipate social and economic needs but also, to use infrastructure to create new possibilities. From Roman aqueducts to fibre-optic broadband networks, successful infrastructure often requires new ideas and new approaches to anticipate needs and to serve public policy and economic objectives, often before the markets can catch up. When done well, major infrastructure development can change a society for the better and assure its continued prosperity, as with the decisions to build Highway 401 and to electrify rural and northern Ontario.

Despite rapid advances in technology and engineering potential, both governments and their private sector and civil society counterparts are often reluctant or unable to break free of the constraints of convention, risk-aversion, complacency and cost. Third-sector organizations, like the Rural Ontario Institute (ROI) or the Northern Policy Institute (NPI) will have a crucial role to play in framing the concepts, describing the opportunities and risks, and pointing the way to the future.

Successful Strategies for Economic and Social Development in Rural Societies

The economic, social and environmental challenges facing rural communities are no longer confined by local municipal boundaries or traditional community identity. One promising approach is therefore to address the challenges facing rural communities from a regional, rather than purely local perspective. In northern Ontario, the absence of county governments has meant an expanded role for district social services administration boards (DSSABs), in areas ranging from social housing to social services, but outside urban centres, the existing structures really do not fulfil the need. In southern Ontario, however, a number of county governments have accepted this twenty-first century “regional” role.

Prince Edward County has re-invented itself, adopting a single-tier county government and moving away from an economy dominated by traditional agriculture and declining population, but without abandoning its roots and its assets. Prince Edward has embraced a 21st century economy that features tourism built on vineyards, farm products, and natural and heritage assets. From that base, it has attracted digital-economy enterprises and professional services that gravitate to communities with a high and affordable quality of life and superior digital connectivity, with accessible urban markets. Like some other counties, Prince Edward reduced the number of municipalities, both to expand the capacity and integration of local government and to facilitate the adoption of a broad common vision.

Other counties have developed economic development partnerships with major regional employers. With Bruce Power, the counties of Bruce, Grey and Huron have developed a unique working relationship — the Nuclear Economic Development and Innovation Initiative. That government/business partnership is already showing progress in recruiting new and existing suppliers and spin-off businesses to contribute to (and benefit from) the multi-billion-dollar long-term refurbishment of the Bruce nuclear reactors (Bruce, 2017).

The Eastern Ontario Wardens Caucus — an informal association of the leaders of rural county governments — showed how a 21st century vision could leverage municipal seed money into a \$100+ million investment in high-speed broadband connectivity across all of rural and small town Eastern Ontario. The Eastern Ontario Regional Network (EORN) is an economically and socially powerful initiative. EORN gives residents, professionals and businesses in rural communities a low-cost opportunity to enjoy many of the benefits of big-city services and institutions, and connectivity to global markets. It helps to sustain and attract those who want to live and do business in rural eastern Ontario.

Civil infrastructure remains a burden for many rural municipalities. A vast inventory of water and wastewater systems, drainage works and rural roads and bridges must be supported by small populations and limited fiscal resources. Across Ontario, hundreds of small bridges are in need of repair or replacement, like those in Wellington County (MMM, 2013). Individual bridge projects can be a major financial burden for a township municipality.

Jurisdictions like Missouri and Pennsylvania have found ways to bring a whole portfolio of bridge infrastructure up to contemporary safety and construction standards with a “big bang” approach called “project bundling.” Research suggests that results can be more assured through the use of Infrastructure Ontario’s Alternative Financing and Procurement (AFP) model (OGRA, 2013). Hundreds of similar bridges are bundled into an overarching evaluation, design, construction, financing and maintenance initiative. They are tendered to a single general contractor or bid consortium, in a time-limited, set-price contract, potentially financed by the private sector. The winning bid consortium uses repetitive processes and standardized designs to effect savings, often employing local delivery agents bound to centrally determined design specifications and execution provisions.

One example of the power of bridge bundling is found in Missouri, which in the fall of 2008 launched an ambitious \$685 million program to improve or replace 802 bridges statewide within five years. The 554 bridges slated for replacement were bundled into a 2009 mega design-build contract — the first of its kind in the nation — with a joint-venture contractor comprising national industry players. With an aggressive target completion date of December 2014, the contractor tackled the project by engaging, among other firms, more than 100 Missouri contractors and subcontractors, which lowered costs and boosted local knowhow. Such efficient sourcing, combined with collaboration and economies of scale unprecedented in bridge rehabilitation programs, contributed to the 554 bridges being replaced a full year early — and under budget. (Price, 2016)

Rural water, wastewater and drainage works face similar problems. What are the solutions for limitations on local municipal financial resources and technical capacity?

- Economies of scale
- Geographic footprint corresponding to the scope of the challenge
- Full-cost and lifecycle pricing
- Openness to private-sector financial and operational partnerships, and
- More professional and managerial capacity and depth.

“Regional” solutions can be designed and funded using upper-tier, watershed-based, or private-sector entities with the scale and expertise to do the job (Fenn and Kitchen, 2016, p. 14, 17, 21, 23, 76-77, and 105fn).

Conclusion

How can these opportunities be identified and initiatives promoted? Making better use of regional entities to advance the solutions to infrastructure challenges is one proven course. Allowing the private sector to play a bigger role in infrastructure delivery is another. However, transformative change in the face of megatrends will not come easily to rural Ontario, with its respect for tradition, competing interests and, understandably, cautious approach to economic risks.

A number of existing not-for-profit and university-based programs can assist with that difficult but exciting transformation. In part, it involves leaving behind stereotypes and ingrained self-perceptions. Like Scotland's SRU, Brandon University's Rural Development Institute (RDI) has been a pioneer in re-imagining rural communities for the 21st century. Among other contributions, RDI has helped rural Manitoba communities re-think their sense of identity in a way that looks at patterns of rural social and economic interaction, rather than traditional political, administrative or urban centre/hinterland paradigms (Ashton, 2015).

The Rural Ontario Institute is uniquely positioned to describe the nature of the challenges facing rural Ontario in clear sighted and evidence-supported ways. ROI also has the leadership network to develop and pursue the agenda for change. As this paper has attempted to illustrate, that change agenda will need to include using megatrends to anticipate the future, and using infrastructure to shape and create that better future for rural communities.

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NORTHERN PERSPECTIVES

The Impact of Megatrends on Rural Development in Ontario: Progress through Foresight

Charles Cirtwill & Emma Helfand-Green²

Michael Fenn's paper ties together a number of the themes discussed in the other *Rural Foresight Papers*. Overall, Fenn highlights the impacts that six megatrends will have on infrastructure and rural and northern development. These trends are clearly happening and will result in significant changes for rural communities, but the pace of change may not be as quick in the northern part of the province as compared to communities in southern Ontario.

The slower northern change is because many communities in Ontario's northern regions, especially those far from the Great Lakes or the Quebec border, are still without basic infrastructure that is commonplace in the rest of the province. Indeed, there are approximately 24,000 people living in what is sometimes referred to as the Far North (Government of Ontario 2017). The Far North communities in this region are still dealing with a lack of basic infrastructure such as roads, housing, drinking, broadband and other necessities. As Charles Conteh described in a paper commissioned by Northern Policy Institute:

The particular characteristics, potential, and constraints of the Far North are distinct from those of the other economic regions of Northern Ontario. It is a unique region with special needs based on issues of access, distance, and density. For instance, these communities need investment in rudimentary physical and social services infrastructure just to bring them up to par with other communities covered in this study [other communities in Ontario's northern regions]. The problems of isolation, lack of basic road and rail access, and subsequent socio-economic exclusion are particularly poignant in these Far North communities. The deliberations about strategic investment in the Far North, however, should not be restricted to thinking simply about road access. Rather, it should be a larger framework of community capacity building through the provision of basic necessities that most Canadians take for granted: safe drinking water, electricity, and broadband Internet access (Conteh 2017, 4).

What does this mean for the trends identified by Fenn in his paper? It is likely that some of the impacts discussed in his paper will not be as strongly felt in these northern communities, or that the change will take longer to materialize. More specifically, many of the impacts of the megatrends identified by Fenn are predicated on a community's and individual's ability to access reliable broadband and internet connection. However, as highlighted in the Northern Perspective response to Catherine Middleton's paper, there are still areas lacking the basic information and communication technology (ICT) infrastructure across Ontario's northern region. This will act as a drag on the speed of change for these communities.

The vast geography of the province's northern regions (which covers a land area of over 800,000 km²) has an impact on how the implications proposed by Fenn will be felt in the area. For example, the notion of long-distance commuting may be practical in rural areas in southern Ontario, but may be unrealistic for many communities in northern regions that would require significant technological advances to make

² The authors gratefully acknowledge the contributions to this piece made by James Barsby.

commutes possible. Finally, cultural differences in communities in northern Ontario — especially First Nations communities — may impact the time it takes for adoption of new changes. Overall then, the implications and trends identified by Fenn surely will have significant impacts on the future of Ontario's northern regions, but they may happen at a different pace and they will impact each of northern Ontario's diverse regions differently.

One interesting opportunity for rural and northern communities, that relates to a changing understanding of physical infrastructure, are community hubs — physical or virtual places that bring together a range of services and programs for clients. In many ways, community hubs are a response to a number of the practical implications of the megatrends Fenn identifies. For example, Fenn describes how going forward, functions will converge and society will expect infrastructure to provide “a suite of services.” Hubs are designed to do this very thing by bringing services together for easier access and better service delivery. The current trend in hubs — to re-purpose existing infrastructure like schools (an example being the community hub in Parry Sound) — is aligned with what Fenn describes as the “shrinking scale” of future infrastructure projects. As Cirtwill (2017) explains, “the province spends millions, indeed hundreds of millions, of dollars each year on new infrastructure. We love to build new things [...] Instead of allocating 100% of our infrastructure spend to maintenance or replacement, we could allocate a small portion of it to repurpose infrastructure.” Making use of existing assets will be one critical way to deal with the megatrends, and community hubs represent a great opportunity to make use of these assets to better meet the needs of residents in a changing society.

In sum, Fenn identifies six megatrends and a number of key implications of these trends for rural Ontario. Although it is clear that these trends are and will continue to be felt across both northern and southern Ontario, it is likely that due to existing differences in infrastructure, demographics and culture in communities in Ontario's northern regions, especially those in the Far North, the implications will be less strongly felt and may take a longer time to be realized.

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Broadband Infrastructure for the Future: Connecting Rural Ontario to the Digital Economy

Dr. Catherine Middleton

Introduction

Recognizing that broadband networks are now essential infrastructure, this paper discusses the current availability of broadband in rural and remote Ontario and makes the case that immediate action is needed to improve and extend connectivity across the province. Recommendations for developing future-proof broadband are offered, calling for a variety of approaches to attract investment from private and public partners, and to enable local communities to develop solutions that meet their needs.

The paper focuses on fixed broadband services, but both fixed and mobile broadband should be considered as policy makers develop a comprehensive approach to improving broadband infrastructure in Ontario. The paper does not address issues of broadband affordability, focusing instead on actions to extend availability. To realize the full benefits of investment in broadband infrastructure, people must have the skills and literacy to use it to their advantage. Encouraging digital literacy, improving affordability and ensuring the development of mobile broadband networks are all issues that are crucial to realizing a thriving digital economy in Ontario but these issues are beyond the scope of this paper.¹

Ontario is going digital

According to the province's Digital Government website, "Ontario is becoming the most modern and digital government in Canada by accelerating how citizens engage and interact with government through the power of digital technology."² The Premier has instructed Ontario's Minister responsible for Digital Government to work with the province's first Chief Digital Officer (hired in 2017) and other colleagues to "drive digital transformation across government and modernize public service delivery."³ At the federal level, Canada's Minister of Innovation, Science and Economic Development is developing an agenda to advance innovation in a world where "technology is digitizing and automating every aspect of our lives — and it's happening much faster than anyone ever imagined."⁴

While the full promise of widespread, rapid digital transformation is yet to be realized, there is little doubt that information and communication technologies (ICTs) are now central to everyday life. Economic and social activities are increasingly enabled by ICTs, with the effect that, as declared by OECD ministers in June 2016, "the world economy is becoming ever more digital" and "growing use of and investment in digital technologies and knowledge-based capital is profoundly transforming our societies."⁵

The terminology of the "digital" economy is relatively recent but the underlying acknowledgment that society and the economy are being transformed by ICTs is not new. As a 1992 discussion paper prepared by the Ontario Ministry of Culture and Communications noted, "Telecommunications has the potential to allow everyone in Ontario to have immediate access to emergency and health services, education and training resources, government information, library resources, a world of information and databases, cultural resources and programs, and a range of newly developing services provided both publicly and privately."⁶ Substitute "digital technology" for "telecommunications" and this statement would not look out of place if published in 2017, 25 years later.

There is extensive evidence documenting the ways in which ICTs improve quality of life, increase economic productivity, support greenhouse gas reduction, and enable social inclusion and engagement in society.^{7,8} But the digitization of the economy is both uneven and incomplete.⁹ Declaring that "the digital economy is the economy,"¹⁰ as the federal Minister of Innovation, Science and Economic Development did recently, does not necessarily make it so. Likewise, Premier Wynne's claim that Ontario is "at the cutting edge of the digital economy"¹¹ is aspirational rather than reflective of reality for many

residents of, and businesses operating in, Ontario. Nevertheless, digital technologies are embedded in, and essential to, the everyday lives of Ontarians. This paper examines the need for better telecommunications services across the province to enable the digital economy.

Broadband availability in Ontario today

Among the factors slowing Ontario's transition to a fully digital economy is the lack of universal access to affordable and high-quality telecommunications services. Telecommunications infrastructure is an essential enabler of the digital economy. As early as 1992, a vision for telecommunications infrastructure to enable Ontario's economic growth called for:

- "a ubiquitous, transparently mobile, digital, high capacity network infrastructure provid[ing] integrated voice, data, image and video services to meet the diverse requirements of businesses, governments, institutions and consumers alike.
- Ontario businesses [to] have available affordable, innovative telecommunications services equal to anywhere in the world which support their competitiveness and enable ongoing productivity gains.
- Advanced telecommunications services [to be] available in all areas of the province, including rural and remote areas."¹²

Since 1992, the province has invested hundreds of millions of dollars in telecommunications infrastructure, funding the extension of broadband (i.e., very fast internet access) to rural and remote areas, and connecting citizens, businesses, educational institutions and local governments to each other and to the world.¹³ Provincial investments were often matched with federal funding¹⁴ and/or funds from local governments (as with EORN, the Eastern Ontario Regional Network), further extending the reach of broadband networks across the province. Additionally, private telecommunications companies, small and large, have collectively invested billions of dollars in fixed and mobile telecommunications infrastructure in the province.

Much progress has been made. In urban Ontario, individuals and businesses have access to broadband services from a number of providers, supporting internet use for communications, education, entertainment and access to government services. Infrastructure is in place or available to support sensor networks and to enable the "Internet of Things," making the development of "smart" communities and autonomous vehicles possible.¹⁵ Mobile services support ubiquitous use of smart phones, facilitating always-on communications and providing access to services as people move around cities and travel on major roads across the province. These services are more expensive in Canada than in many other OECD countries,¹⁶ but it is reasonable to assume that in urban Ontario individuals and businesses who want to use digital technologies to engage in society and to generate economic activities have the necessary infrastructure to do so. Unfortunately, for many individuals and businesses located in rural and remote parts of the province, this assumption does not hold. The 1992 vision for universal access to telecommunications infrastructure in Ontario has yet to be fully realized.

In 2011, the CRTC (Canada's telecommunications regulator) set a target for broadband speeds in Canada, calling for all Canadians to have access to broadband connections providing a minimum of 5 Mbps (megabits per second)¹⁷ download speed and 1 Mbps upload speed by the end of 2015.¹⁸ These speeds were recognized as sufficient to allow multiple people in a household to simultaneously use the internet for browsing (viewing text and low-quality video files), email and voice applications. Videoconferencing, for instance to support online learning or health consultations, or access to higher-definition video streams, could also be provided at these speeds but only for a single user at a time.

In urban Canada, these speeds have been available since the late 1990s, over cable or telephone (DSL) networks. CRTC data indicate that by 2015, 96 percent of Canadian households could access a broadband service that met the download speed target of 5 Mbps.¹⁹ But the 4 percent of households not able to get broadband service at 5 Mbps were disproportionately rural. All households in communities with more than 1,000 residents had access at the target speed, compared to just 81 percent of

households in rural areas.²⁰

The CRTC reports that 85 percent of Ontario households subscribed to a broadband service in 2015,²¹ but does not indicate whether the subscription rates are different in urban and non-urban parts of the province. Statistics Canada data from 2012 indicated that 84 percent of Toronto households had a broadband connection, compared to just 64 percent of households in rural Canada.²² Rural broadband adoption has always lagged adoption in Canada's urban centres,²³ and it is likely that this pattern persists.²⁴ There is, however, strong demand for higher-quality, more affordable²⁵ broadband in rural Ontario. The quotes below are from submissions to the CRTC's 2015–2016 consultation to define the characteristics of basic telecommunications services needed to "participate meaningfully in the digital economy."²⁶

"I feel like the service we are receiving is actually declining instead of improving. ... In today's wireless society it is very difficult not being able to access services that everyone else takes for granted (e.g., online banking, streaming video, online radio, renting movies, work, shopping, school assignments, research....)" (Georgian Bay area)

"I live within 5 km of a major city, 2 km of a smaller town and less than 1 km from another town. I am limited to three types of internet, dial-up which is not broadband access, cellular internet or satellite/line of site. The latter two are extremely expensive compared to other plans within the city. For something practical and realistic for me I cannot even get close to your [the CRTC's] goals of broadband at 5 Mbps." (Southwestern Ontario)

"Due to the traffic management policy of [the internet service provider] between the hours of 8 am and 1 am speeds are reduced to that of dial up. I cannot watch videos, use Skype, I have had to discontinue my education online at Durham college as I cannot participate in some class chats or video conferences. Our internet services are constantly going down or experiencing technical issues, more and more often I am relying on my cell phone data to access the internet. Our service is expensive, unreliable and extremely disappointing. It's 2015, the internet is no longer a luxury it's a necessity." (Eastern Ontario)

"Download speed from 0100 hours to 0800 hours is 9 mbps, upload is 0.6 mbps. Between 0800 and 1530 hours, the speed drops to 4 mbps down and 0.4 mbps up. Between the hours of 1531 and 0100, the speed drops to 1 mbps down and 0.2 mbps up. This is not sufficient to do any type of video streaming. I do not have any other options. I am retired so I can do my internet research etc. prior to the speed dropping. My grandchildren live close by and are stuck with the same inadequate service. High speed internet is not a luxury for them rather, it is a necessity. They are in school and are at a disadvantage to all of their classmates who enjoy wired high speed internet service." (50 km north of Toronto)

"[P]eople in Rural areas should have the same access as anyone else. We have the same interests in the way we use the internet and we change our viewing habits like anyone else. We are driven by the same social/economic pressures and the same need to keep up with everyone else." (Georgian Bay area)

"Living in a remote Northern Ontario town does not make it OK for our residents and business owners to suffer daily with extremely slow internet speeds. High speed internet is the way of the future and everyone in Ontario and Canada should benefit from reliable speeds. Our education system is also suffering, where kids at local schools can't even do proper research on the internet, as the capacity is not there and the high speed can't keep up. Something needs to be done very soon, to rectify this grave problem that affects the entire community and region." (North of Wawa)

These quotes express the frustration of rural and remote Ontario residents who have poor-quality, expensive broadband and are unable to access the information and services required to support their daily activities. There is less data available from rural and remote businesses but there is every reason to believe that they experience the same frustrations. So, while the CRTC reports that in 2015, 96 percent of Canadians did have access to broadband service that met its 2011 target (a target that supports very basic uses of the internet), many rural Canadians told the CRTC that the 2011 target was insufficient for their needs and that action was needed to bring high-quality, affordable broadband services to rural and remote parts of the country.

Broadband for the future

Rural Ontario needs better broadband connectivity. But what are the future requirements for rural broadband? The simplest answer to this question is that the future requirements for rural broadband are exactly the same as the future requirements for urban broadband. If the Ontario government is to succeed in its “digital by default” approach to providing services (in which the preferred delivery mechanism is digital), and if all Ontario residents and businesses are to be able to realize the benefits of widespread adoption of digital technologies, the province needs ubiquitous, uniform and future-proof broadband connectivity.

High-quality broadband connectivity is essential for all, but the consequences of not having good broadband are more serious outside urban areas.²⁷ Among the specific benefits better broadband provides to rural areas are: online access to health and education services that are not currently available in rural communities, and the capacity to buy physical goods and obtain services that are not available locally.²⁸ The deployment of broadband in rural communities promotes employment and wage growth,²⁹ and makes advanced manufacturing and high-end video production and editing possible. Broadband enables the establishment of local healthcare and advanced education facilities and supports law-enforcement agencies. Broadband also supports access to audio and video content, not just for entertainment but also for education, as illustrated by reaction to a recent TVO proposal. In early 2017, TVO, the province’s educational television station, announced that it intended to shut off eight over-the-air television transmitters. It stated that less than one percent of Ontario households would be impacted³⁰ because households could access TVO through cable or satellite TV providers, as well as online using a broadband connection. The reaction from Ontarians whose internet connections did not allow them to access TVO content was swift and furious, and within a couple of weeks TVO decided to keep the over-the-air transmitters in service.³¹ TVO assumed that broadband capacity was sufficient to allow viewing of their video content across the province. This was not the case, and they faced the ire of viewers whose access to educational television would be severely constrained due to their lack of broadband connectivity.

Economic benefit also comes from the rapidly evolving practices of “smart farming” and “precision agriculture” (enabled by the “agricultural Internet of Things”).³² In areas where broadband infrastructure provides sufficient bandwidth (often through mobile or wireless connections, with support for uploading large volumes of data as well as downloading), farmers and agribusinesses are deploying a wide array of new technologies to increase the productivity and sustainability of their operations.³³ A 2016 report on advancing competitiveness in the US agricultural sector is clear that “The future of agriculture depends on the adoption of new field technologies that facilitate the gathering of data.” Such data include soil sampling and crop yield information, satellite imagery and GPS data, which can be combined with data from other sources on prices, productivity and other factors and analyzed using big data techniques.³⁴

Other papers included in these *Foresight Papers* also offer insights on demand for broadband services in rural Ontario. Chamberlain discusses the growth of the local food movement, which uses the internet to connect producers to consumers, and notes the development of online resources for immigrants to identify business opportunities in rural Ontario. The availability of good-quality broadband in rural communities will assist in attracting and retaining younger residents, and will support the development of social enterprises by facilitating information sharing and community building. Rural business

succession will not happen without the availability of broadband infrastructure to allow these businesses to join and thrive in the digital economy.

Fenn identifies trends that are expected to impact life in Ontario in the coming decades. With universal connectivity every rural community and every farm can have easy, affordable access to global resources, providing expertise in health care, education and training, and agricultural enterprise. Ubiquitous broadband will enable the advent of driverless and shared vehicles, 3D printing, nano-technologies and robotics. He also describes the possibilities of using sensor and monitoring technologies to assist in maintaining physical infrastructure like roads and bridges, and broader applications of the “Internet of Things.”³⁵

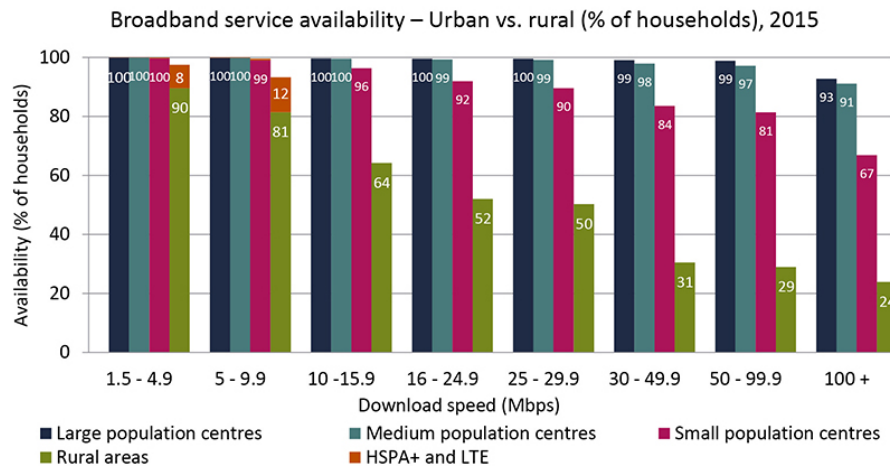
These possibilities are real, but a recent American report warns of the perils for those unable to access the Internet of Things (IoT). Once IoT devices become central to the delivery of health care and other services, if “the public sector does not implement policies to encourage equitable deployment, the Internet of Things could exacerbate existing inequalities by providing the benefits of data-driven decision making only to some, and placing already underserved communities at an even greater disadvantage.”³⁶ The danger of exacerbating existing inequalities extends beyond the Internet of Things to internet access in general.

The issues of providing service to underserved communities, and of removing inequality of access to the digital economy, were central to the CRTC’s 2015–2016 consultation on basic telecommunications services.³⁷ In its December 2016 decision, Telecom Regulatory Policy CRTC 2016-496: *Modern Telecommunications Services – The Path Forward for Canada’s Digital Economy*,³⁸ the CRTC determined that “broadband internet access services are vital to Canada’s economic, social, democratic, and cultural fabric,”³⁹ and called for all Canadian households and businesses to have access to fixed (i.e., wired) broadband internet services offering download speeds of a minimum 50 Mbps and upload speeds of at least 10 Mbps. The decision also establishes that “the latest generally deployed mobile wireless technology should be available not only in Canadian homes and businesses, but on as many major transportation roads as possible in Canada.” The inclusion of mobile services will be of particular benefit to those in rural Canada, as current mobile phone coverage is often poor or even non-existent outside towns and cities.

The CRTC decision is generally recognized as a positive step forward for Canada’s digital economy and is designed to bring real benefits to parts of the country where high-quality broadband is not currently available. Broadband services offering 50 Mbps download speeds and 10 Mbps upload (50/10) speeds at specified service-quality levels⁴⁰ and deployed ubiquitously will support the uses described above. But the history of the internet has demonstrated that connections that were adequate at one point in time very quickly become inadequate as applications become more bandwidth-intensive and new services are adopted. Given this reality, it is possible that by the time broadband services meeting the minimum universal service objective criteria are rolled out in rural and remote Canada, they will already be straining to deliver adequate access to the latest applications and services in use at that time.

Indeed, in announcing this decision, the Commission noted that more than 80 percent of Canadians already have access to fixed broadband services at 50/10 speeds.⁴¹ Most rural Canadians cannot currently subscribe to a broadband service offering speeds anywhere near the new target, yet in urban Canada services faster than the target speeds are already widely available (see Figure 1). As telephone companies replace their copper telephone lines with fibre-optical networks, urban Canadians will have a choice of service providers offering speeds in excess of 50/10. The real challenge for rural Canada then is not achieving the CRTC’s 50/10 universal service target for fixed broadband services, but developing a strategy to ensure more future-proof broadband services are, or will be, available even in small population centres across the country in the next few years. This challenge is examined in the following section.

Figure 1: Broadband service availability – Urban vs. rural (% of households), 2015 (Sources: Innovation, Science and Economic Development Canada (ISED) and CRTC data collection)⁴²



Meeting Ontario’s future broadband needs

Despite extensive investments in broadband infrastructure by governments and the private sector, many individuals and businesses in rural and remote parts of the country still do not have the broadband they need. This section identifies actions already underway to improve broadband availability in rural and remote Ontario, and outlines further actions needed to ensure universal access for all. It calls for the development of a provincial broadband strategy and offers examples of how new broadband investments can be funded, recognizing that improvements to broadband infrastructure can be initiated by individuals and communities, not just through provincial and federal government actions.

Current programs

The CRTC’s recent decision establishes a fund to extend broadband infrastructure to locations where the new target speeds are not available. The fund will distribute a maximum of \$750 million in its first five years, with funding to be awarded on a competitive basis. Applicants must invest in the project themselves and secure “non-nominal” contributions from a government entity.⁴³ Given the lead time needed to establish the program (initial funding decisions are not anticipated until 2019 or 2020),⁴⁴ and then the time needed to extend broadband connectivity, the CRTC does not anticipate that its target of 50 Mbps download and 10 Mbps upload speeds available to all premises will be met for another ten to fifteen years.⁴⁵

The CRTC has indicated a desire to align its fund with existing funding programs.⁴⁶ For example, the federal government has pledged to invest \$500 million for broadband infrastructure by 2021, through the Connect to Innovate (CTI) program.⁴⁷ CTI funds are awarded on a competitive basis, with a focus on investments in backbone infrastructure (backbone networks are analogous to main roads, and bring high-capacity connectivity into communities, linking smaller locations to the internet at local “points of presence”). CTI will also invest in last-mile connectivity, which is more analogous to local roads, connecting individual homes and businesses to the internet “main road” at a local point of presence. As is common with broadband funding programs, CTI will not fund 100 percent of any project, requiring applicants to get contributions from other federal government programs or agencies, or from other sources (including provincial and municipal agencies). Applications for CTI funding are currently being adjudicated, and it is likely that demand will exceed the available supply of funds.

An urgent need for leadership and action

In its submission to the federal government's 2016 Innovation Agenda consultation, the CRTC was very clear about what is needed to ensure broadband access for all, stating:

"Meeting the nation's broadband challenges will require billions of dollars over many years to come. Closing all of the gaps will require coordinated and collaborative action on the part of multiple stakeholders, including the private sector, community and non-profit organizations, the CRTC, and governments at all levels. The record of the proceeding [the CRTC's consultation on basic telecommunication services] supports the federal government's leadership of this approach."⁴⁸

The need for large-scale investment in broadband, led by the federal government, has been recognized for more than 15 years, yet there is still no national strategy in place to ensure broadband for all. For instance, the 2001 National Broadband Task Force (NBTF, appointed by the federal government) was clear that "The priority of the broadband deployment strategy should be to link all First Nations, Inuit, rural and remote communities to national broadband networks using appropriate technology."⁴⁹ The NBTF called for broadband for all by 2004. Some investments were made to improve broadband availability following the NBTF but they were insufficient to provide connectivity to everyone. Recognizing the continued need for investment, the 2006 Telecommunications Policy Review Panel recommended a targeted subsidy program to achieve universal access.⁵⁰ This recommendation was not acted upon. The 2010 federal consultation on a digital economy strategy for Canada yet again recognized the need for better broadband, stating "Given the huge importance of access to high speed networks, governments will likely have an ongoing role to ensure that Canadians in rural areas are not left behind. In doing so, Canada must ensure that citizens and communities have more than just basic broadband, but the speeds and capacity needed for economic growth."⁵¹ No digital economy strategy resulted from this consultation, but in 2014 the federal government did make additional funds available for investment in rural broadband networks (these funds are being allocated through the CTI program).⁵²

In 2017, the Ontario government has embraced the use of digital technologies to deliver services to Ontarians. Broadband has been declared an essential service, but access to the broadband infrastructure that allows digital service delivery remains a challenge for many. Researchers have noted the paradox of poor broadband access, observing that those who could benefit the most from digital delivery of services (using digital technologies to bridge distances and improve quality of health care, educational access and facilitate economic participation) are least likely to have access to the infrastructure needed to make digital delivery possible.⁵³ The problem of poor broadband access is real, and has increasingly serious consequences. Despite repeated recommendations for federal action to address the problem, there is still no unified national strategy in place to ensure broadband for all. In order for Ontario to advance its aspirations to be at the cutting edge of the digital economy, it must act now to develop a plan to ensure that all Ontarians will have access to future-proof broadband and mobile technologies as soon as possible, to allow their full participation in the digital economy.

Developing a broadband strategy for Ontario

In 2016, the Premier of Ontario appointed the province's first Minister Responsible for Digital Government, with a mandate "to make government work better for citizens by delivering simple and straightforward digital services and products."⁵⁴ The Minister is to work with other government ministries on "high-impact signature digital projects" and make "it easier for citizens to participate in government." The Minister's mandate also includes the development of a digital literacy strategy and appointment of a Chief Digital Officer for the province,⁵⁵ but makes no explicit mention of ensuring that all Ontarians have access to the infrastructure needed to engage in digital society. While the work of the Minister for Digital Government and the Chief Digital Officer appears to be focused on the development of digital government services, these services will not be accessible to all without universal broadband access. Responsibility for advancing the rollout of broadband infrastructure in Ontario appears to rest with four

other ministers.⁵⁶ The Minister of Infrastructure and the Minister of Economic Development and Growth are instructed to work together “on expanding broadband infrastructure and improving connectivity in communities across the province.” The Minister of Northern Development and Mines is to seek federal support and work with Indigenous partners and other ministers, including the Minister of Intergovernmental Affairs, to provide a “modern broadband network across Northern Ontario.” The Minister of Infrastructure is required to deliver an infrastructure plan by the end of 2017, and the Minister of Digital Government is to develop a Digital Government Action Plan.

Access to broadband is fundamental to supporting education, health care, culture,⁵⁷ commerce and social engagement. Broadband is essential infrastructure, and the competitive approach to funding broadband, in which limited funds are awarded to communities deemed to have the best proposals, and other communities receive no funding, must change. Broadband can no longer be developed through a patchwork approach that has rewarded those local communities who do have the capacity to argue why they are deserving of support to build this essential infrastructure, while excluding their neighbours who do not have this capacity. At present, however, the provincial government’s approach to ensuring that Ontario residents and businesses have access to broadband infrastructure is fragmented and incomplete. The province does not appear to have committed to high-quality broadband for all, instead calling for “improving” connectivity.⁵⁸ At a time when action is urgently needed, a single ministry should develop a strategy to ensure that the province’s stated objectives to use digital technologies to transform service delivery and improve the quality of life for Ontarians are realized. The province alone cannot solve the problem of poor access, but it must take a leadership role in making broadband available to all.

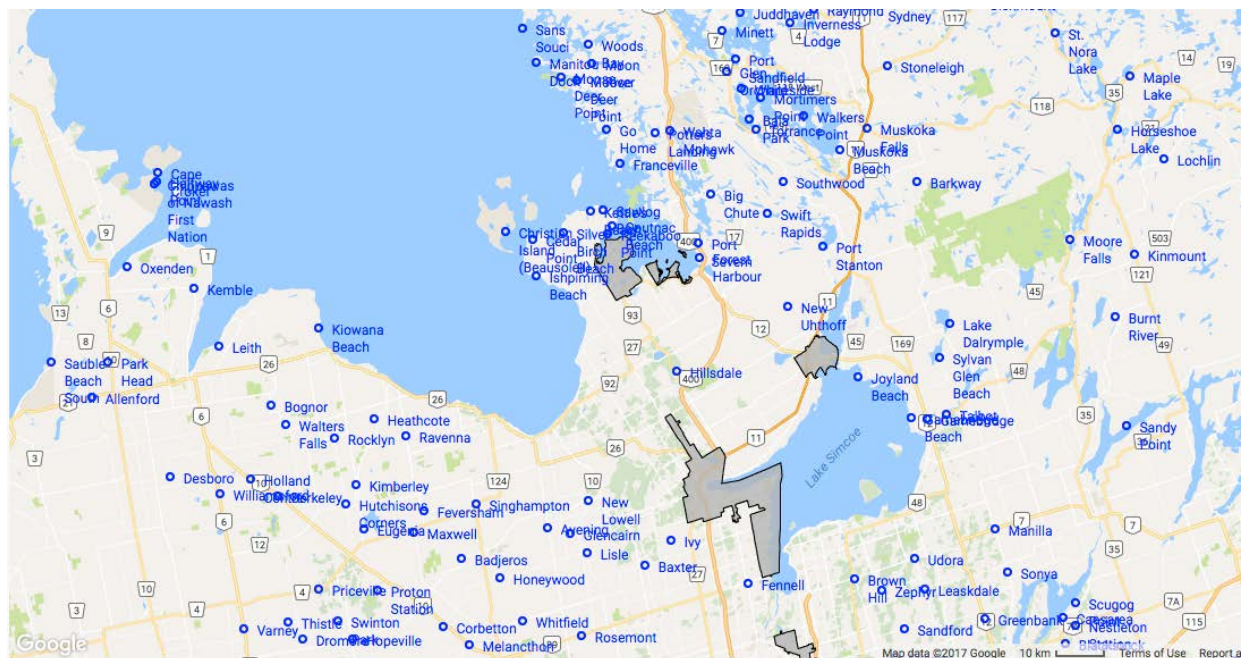
As a starting point, the strategy should explicitly acknowledge the need for all Ontario communities to have affordable access⁵⁹ to fixed and mobile broadband at the CRTC’s target speeds as soon as possible. To ensure longer-term competitiveness, a provincial broadband strategy should go beyond the CRTC’s targets with a plan to develop future-proof broadband infrastructure for rural and remote Ontario. It is beyond the scope of this paper to offer a detailed discussion of the technologies used to provide broadband access,⁶⁰ and it is difficult to anticipate future demand. There are uncertainties about the potential future capacity of existing technologies, and ongoing debates as to whether wireless technologies will advance sufficiently to become a true substitute for wired connections. These debates will continue, but current consensus is that the most future-proof broadband available today is provided through fibre-optical networks.⁶¹

Fibre broadband is available in urban Canada, typically offering speeds of 1 gigabit per second (1 Gbps, which equals 1000 Mbps). Fibre networks can offer symmetrical services, meaning that upload and download speeds are the same (facilitating data storage in the cloud and making it easier for individuals and businesses to send large files as well as to receive them). Gigabit connectivity means download speeds twenty times faster the CRTC’s 50 Mbps target, and upload speeds one hundred times faster than the 10 Mbps target. Additionally, once a fibre network is installed, data transfer speeds can be increased by changing the equipment used to run the network. So as demand for speeds increase, a gigabit network can be upgraded to offer 10 Gbps or 100 Gbps or more over the existing fibre. To future-proof broadband access in Ontario, and to ensure that all Ontarians have the capability to participate fully in the digital economy, it is necessary to extend fibre networks as deeply as possible into rural and remote parts of the province.

A broadband strategy for Ontario should develop approaches to extend gigabit connectivity into the 687 Ontario communities⁶² eligible to receive new backbone funding from the federal government’s Connect to Innovate program⁶³ (recognizing that many of these communities will not receive support from the CTI program). These communities, located across the province, are at least two kilometres away from a gigabit point of presence. As an example, Figure 2 identifies eligible communities in areas northwest and northeast of Toronto, illustrating the need for better broadband in this part of rural Ontario. In addition to these communities that are eligible for new backbone funding, hundreds more are eligible for funding to upgrade the existing backbone connection or increase network resiliency. Investment in fibre across the

province will also support the rollout of next generation (5G) mobile networks, anticipated to offer much faster and more reliable connectivity.

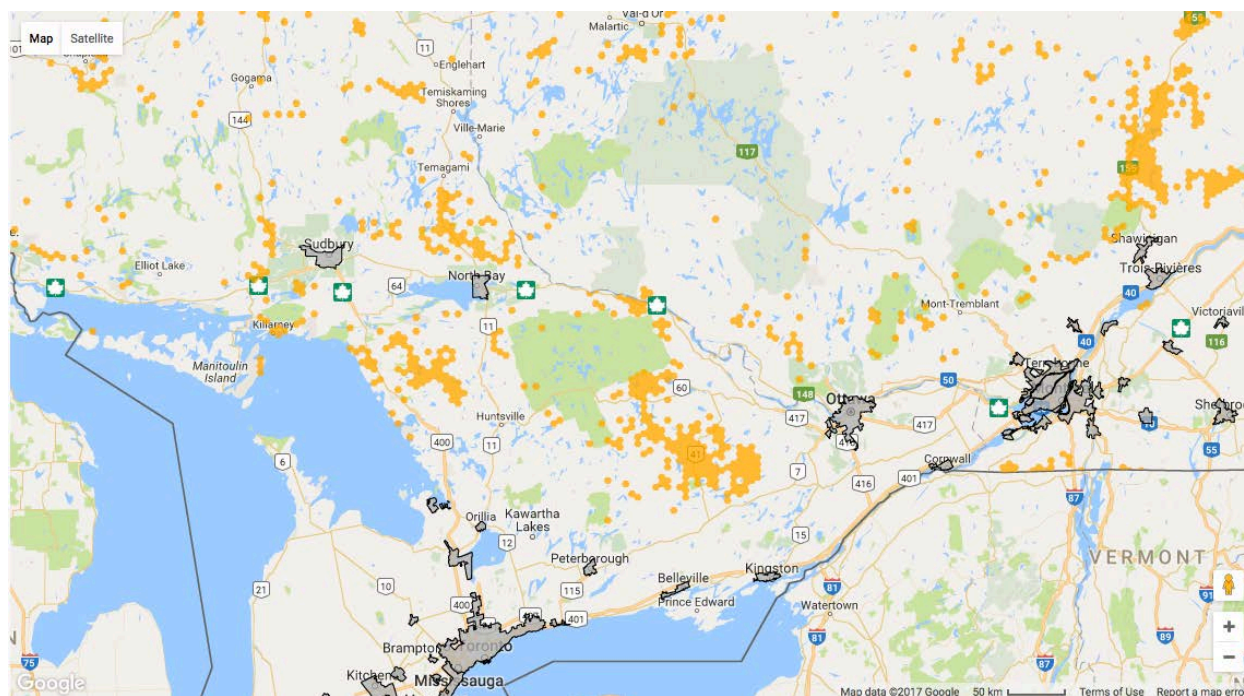
Figure 2: Areas eligible for new backbone funding to enhance broadband access through the Connect to Innovate program (Source: Innovation, Science and Economic Development Canada: <http://www.ic.gc.ca/app/sitt/ibw/hm.html?lang=eng>)



A provincial broadband strategy also needs to address last-mile access (i.e., the connection from a point of presence to an individual premise).⁶⁴ The orange hexagons on the map in Figure 3 show communities eligible for last-mile funding from CTI. This map only identifies locations where there is no last-mile connectivity at all, excluding communities where some premises do have service (for example, in southwestern Ontario). Note that according to the parameters of the CTI program, communities are considered to be connected if they can access a 5 Mbps broadband service. Applying the CRTC's 50/10 target would likely identify almost all the non-urban parts of the province as unserved. (There are exceptions where local internet service providers have deployed fibre to the home networks in rural Ontario, but as noted in Figure 1, less than a third of rural residents had access to broadband at speeds greater than 50 Mbps in 2015.) Wherever possible, broadband networks should be built using fibre directly to the premise (often referred to as fibre to the home, FTTH, or fibre to the premise, FTTP). In some parts of the province FTTH will not be economically viable so last-mile connectivity will need to be provided by satellite or fixed wireless⁶⁵ technologies.

It is beyond the scope of this paper to discuss approaches to encourage the rollout of mobile broadband networks and to ensure that the fixed and mobile networks serving rural and remote Ontario offer affordable services. These issues do need to be addressed in the provincial broadband strategy in an integrated manner (recognizing that both fixed and mobile services are essential), along with a plan to advance digital literacy for all.

Figure 3: Areas eligible for last-mile funding to enhance broadband access through the Connect to Innovate program (Source: Innovation, Science and Economic Development Canada: <http://www.ic.gc.ca/app/sitt/ibw/hm.html?lang=eng>)



Funding models and examples

Broadband can be funded by the private sector, by the public sector or through public-private partnerships (PPP).⁶⁶ Financing options include revenue-based models, private capital and financial markets, government-backed bank loans and bonds, public funds and bottom-up community financing.⁶⁷ To extend broadband to everyone in the province a mix of business models, funders and service providers will be required.

Although it is often argued that there is no business case to extend broadband to areas with low-population densities, private capital is funding fibre-backbone networks in the remotest parts of North America. For instance, the Quintillion project⁶⁸ brings fibre to communities on Alaska's northern coast, operating a 1,200 mile submarine fibre-optic cable through the Arctic Ocean, and demonstrating that there is a business case for private investment in areas not served by existing internet service providers. In developing a strategy to extend broadband to everyone in Ontario, the government should actively seek out private sector investors who might invest in backbone infrastructure because they value steady, sustainable long-term returns.

Large internet service providers have not extended their highest speed networks into much of rural Canada. In Ontario, however, there are a number of independent internet service providers that have built fibre-to-the-home networks in rural communities, demonstrating that it is possible to do so. Examples include the co-ops Quadro Communications⁶⁹ and Hay Communications,⁷⁰ providing fibre to small communities outside Stratford and London, and WTC Communications⁷¹ offering fibre in several locations north of Kingston.

Public ownership of broadband networks is fairly uncommon in Canada. One Ontario example of a public broadband provider is Lakeland Networks, a division of a municipally owned energy company. Lakeland offers fibre to the home in rural areas outside Huntsville and Bracebridge,⁷² with partial project funding provided by the Small Communities Fund.⁷³ Many communities in the United States have adopted a

public ownership model, often led by municipal utilities. Smaller towns like Sandy, Oregon⁷⁴ and Ammon, Idaho⁷⁵ have demonstrated that it is feasible to provide FTTH to residents and businesses at an affordable price.⁷⁶ This approach could be used more widely in Ontario to improve broadband quality in smaller towns.

In Olds, Alberta (a town of less than 10,000 people), local community members planned and built Canada's first community-owned FTTH network, which offers gigabit speed service to every residence and business in town.⁷⁷ In northern England, rural residents decided to address their lack of reliable broadband service by building their own FTTH network. Community members learned how to install fibre, digging their own trenches across fields to connect farms and villages. Broadband for the Rural North, or B4RN, now provides more than 2,300 customers with gigabit broadband, funded by the community.⁷⁸ In Sweden, the widespread availability of publicly owned open-access fibre networks has enabled a similar "fibre to the farm" approach, in which neighbours work together to connect themselves to the internet.⁷⁹

The Eastern Ontario Regional Network (EORN) and the Southwest Integrated Fibre Technology (SWIFT) Network are public-private partnerships developed to improve broadband access in rural Ontario. The EORN network was completed in 2014, and offers access to broadband at speeds of 10 Mbps or higher to more than 1 million residents of Eastern Ontario.⁸⁰ The SWIFT network, currently in the design phase, will initially provide fibre-backbone connectivity into 350 communities in southwestern Ontario, and will work with partners to extend last-mile access across the region.⁸¹ The SWIFT network will support locally owned last-mile networks (like the do-it-yourself approaches described above, as well as initiatives making use of wireless technologies), making FTTH connectivity more feasible in small communities.

The Quintillion, EORN and SWIFT networks are all examples of open-access networks, in which the network owner sells capacity on the network to other operators, allowing multiple providers to use the same infrastructure.⁸² All projects funded by CTI must be open access, and this model is often mandated for publicly funded and PPP-funded networks. Open-access models enable competition among service providers, and generate returns for the network owner/operator by increasing the use of their infrastructure. Some experts argue that open-access models are particularly well-suited to advance the rollout of rural fibre networks, as they can reduce investment risk.⁸³ It is recommended that any project funded with public dollars be operated on an open-access basis.

Recommendations: What can the province do now?

In developing a broadband strategy, the province should draw on the extensive work done in other jurisdictions. There is a wealth of information available in national and regional broadband plans,⁸⁴ reports from the OECD and the ITU, and from not-for-profit organizations that champion community and municipal broadband networks (see Appendix 1 for some examples).⁸⁵ While the province works to develop a complete strategy, there are actions that can be initiated immediately to advance the objective of universal broadband across Ontario. Four of these are noted below, and may build on initiatives already underway in the province.

Assess the current state of broadband in Ontario

The province should catalogue the availability of broadband across the province to identify areas that are unable to get fixed (i.e., wired) service at the CRTC's new target speed (50/10),⁸⁶ and to identify existing resources⁸⁷ that might be leveraged to extend connectivity. It is assumed that much of this information will already be available,⁸⁸ and Cybera's *State of Alberta Digital Infrastructure Report*⁸⁹ provides a model for this exercise. Based on this assessment, which must be done rapidly, a rough classification can be made of the types of remedies that are most likely to address connectivity problems across Ontario. It is necessary to understand where investment in backbone networks is required, where last-mile connectivity is the challenge, and where both backbone and last-mile connectivity is required. Developing an estimate of where it could be feasible to extend fibre (with a

variety of funding approaches) and where satellite or fixed wireless last-mile solutions are needed will help define the range of policies needed to ensure broadband is available to all. As part of this exercise, it will be useful to estimate the support that Ontario projects could receive through the CRTC's new broadband fund and the federal Connect to Innovate program, and to understand the possibilities afforded by leveraging the SWIFT and EORN networks.

Identify approaches to finance investments in broadband networks

To realize the digital transformations envisaged by politicians and the government's own vision, the province must invest in the extension of future-proof broadband to all homes and businesses, and encourage other parties to invest as well. The cataloguing exercise described above will provide a foundation for estimating the investment required to bring broadband to all (including contributions to CTI and CRTC broadband fund projects), by identifying the mix of public and public-private projects needed to extend access to locations that will not be served by private-sector providers. Investment approaches may include direct investment in network infrastructure (for publicly owned networks or for PPPs), outsourcing provision to the private sector, and providing subsidies to existing providers to extend or improve their services.⁹⁰ The province can begin to investigate ways to finance these investments in parallel with the development of a broadband strategy, considering options beyond existing programs like the Ontario Community Infrastructure Fund and the federal Small Communities Fund.⁹¹ Approaches to help finance broadband network construction could include providing guarantees for loans or creating infrastructure bonds, approaches that could assist local communities in funding their own network builds. Cost-benefit analyses across provincial ministries can identify instances where direct provincial investment in broadband infrastructure may be warranted due to reduced costs of delivering services over broadband networks, or reductions in carbon emissions, and provide a means for prioritizing investments. The costs of investing in broadband must be assessed in the context of the implications of not investing, in terms of lost productivity and social and economic disadvantage for those without adequate broadband.⁹²

Develop policies and practices to facilitate access to passive infrastructure

Construction costs make up a major component of the cost of rolling out fibre networks. The province should investigate its options to encourage more access to, and reuse of passive infrastructure owned by public and private entities.⁹³ The cost of fibre rollouts can be reduced by making it easier for providers to use existing rights of way and to reuse physical infrastructure already in place (e.g., ducts and utility poles).⁹⁴ It is also sensible to coordinate civil works and to develop a "dig once" approach to construction projects (e.g., laying conduit for fibre when roads are built, even if it will not be used immediately). Provincially funded construction projects should routinely be assessed to determine how they might be leveraged to extend broadband connectivity. For instance, while the proposed high-speed rail project will provide passenger service only to major cities, as part of the project it would be possible to develop a fibre network running parallel to the tracks to provide "branch line" broadband connectivity to the many smaller towns and villages along the route.

Support capacity building in rural and remote Ontario

The province should establish a staffed resource centre to provide information and guidance for communities and municipalities considering investment in broadband infrastructure, leveraging expertise in the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA), the Ministry of Infrastructure and elsewhere in the provincial civil service. As noted throughout this paper, there are many resources to assist those seeking to improve broadband connectivity, and much expertise in communities and municipalities in Canada and beyond. What is needed though is development of specific expertise to support the differing requirements across the province (as identified in the assessment exercise), to allow for targeted approaches to capacity building in rural and remote Ontario. In particular, support should be available for all interested parties (including the private sector, local government and citizen groups) in rural and remote Ontario to develop viable plans to fund and rollout broadband infrastructure investment in their areas.

Conclusion

The importance of high-quality, reliable telecommunications infrastructure in supporting social and economic objectives has been understood for decades. But despite repeated calls for investments to ensure telecommunications infrastructure is available to rural and remote areas of the province, Ontario still lacks universal broadband access. The challenges of bringing broadband to all are real and must be addressed with coordinated actions across multiple levels of government, and in consultation with citizens and business owners who will use this infrastructure. In the apparent absence of efforts to develop a coordinated national strategy, this paper offers recommendations that can be implemented by the province of Ontario, now, to improve access to this essential infrastructure within Ontario. There are many good resources available to support the province in developing and implementing a provincial broadband strategy. These resources outline various possible approaches and will support the development of business cases to attract investment from the private sector, the public sector and by public-private partnerships to extend broadband to rural and remote Ontario. The residents and businesses of rural and remote Ontario need better broadband today, but it will take years to achieve the goal of a completely connected province. Action is needed immediately to advance the rollout of future-proof broadband across the province so that the 1992 vision of telecommunications infrastructure enabling economic growth and social inclusion for everyone in Ontario will finally be realized.

Endnotes

¹ For discussion of these issues see Middleton, C. (2016). *There's an App for That. Unless There Isn't – The Challenges of Digital Inclusion in Canada in 2016*. Big Thinking Lecture, Royal Society of Canada Annual Meeting. Kingston. <http://www.ryerson.ca/~cmiddlet/ourresearch/Middleton-Digital-Inclusion-Canada-2016.pdf>

² <https://www.ontario.ca/page/digital-government>

³ Wynne, K. (2016). September 2016 Mandate Letter: Digital Government.

<https://www.ontario.ca/page/september-2016-mandate-letter-digital-government>

⁴ Innovation Science and Economic Development Canada. (2016). *Innovation for a Better Canada*. [http://www.ic.gc.ca/eic/site/062.nsf/vwapj/Innovation-for-a-better-Canada.pdf/\\$file/Innovation-for-a-better-Canada.pdf](http://www.ic.gc.ca/eic/site/062.nsf/vwapj/Innovation-for-a-better-Canada.pdf/$file/Innovation-for-a-better-Canada.pdf)

⁵ OECD. (2016). *The Cancún Ministerial Declaration on the Digital Economy*.

<http://www.oecd.org/internet/Digital-Economy-Ministerial-Declaration-2016.pdf>

⁶ Ministry of Culture and Communication. (1992). *A Telecommunications Strategy for Ontario: Framework for Discussion*.

⁷ For recent examples see Mölleryd, B. G. (2015). *Development of High-Speed Networks and the Role of Municipal Networks*. *OECD Science, Technology and Industry Policy Papers*, No. 26. Paris:

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http://www.oecd.org/sti/ieconomy/Cancun_ChartBooklet.pdf; and OECD. (2016). Innovation and the Digital Economy, in *OECD Science, Technology and Innovation Outlook 2016*. Paris: OECD Publishing.

⁸ Broadband Commission for Digital Development. (2016). Open Statement from the Broadband Commission for Sustainable Development to the Marrakech Climate Change Conference (COP-22) – broadband for Implementing the Paris Agreement. http://broadbandcommission.org/Documents/BBCommission_Open_Statement_COP22_11Nov2016.pdf

⁹ Salemink, K., Strijker, D., & Bosworth, G. (in press). Rural Development in the Digital Age: A Systematic Literature Review on Unequal ICT Availability, Adoption, and Use in Rural Areas. *Journal of Rural Studies*. <https://doi.org/10.1016/j.jrurstud.2015.09.001>

¹⁰ Bains, N. (2016). International Institute of Communications Canada Conference – Speaking Points. <http://news.gc.ca/web/article-en.do?nid=1155469>

¹¹ Office of the Premier. (2017). Creating the Jobs of Tomorrow, Today. Ontario Investing \$650 Million in the Business Growth Initiative. <https://news.ontario.ca/opo/en/2017/05/creating-the-jobs-of-tomorrow-today.html>

¹² Advisory Committee on a Telecommunications Strategy for the Province of Ontario. (1992). *Telecommunications: Enabling Ontario's Future: The Report of the Advisory Committee on a Telecommunications Strategy for the Province of Ontario to the Minister of Culture and Communications*. Toronto: Ministry of Culture and Communications., p. 52

¹³ Provincial initiatives included ONIP (Ontario Network Infrastructure Program), Connect Ontario Broadband Regional Access (COBRA), and Rural Connections, as well as partial funding for the Eastern Ontario Regional Network (EORN). For more details on these programs see McNally, M. B., Rath, D., Evaniew, J., & Gareau-Brennan, C. (2015). Intervention in Response to Canadian Radio-Television and Telecommunications Commission Telecom Notice of Consultation CRTC 2015-134. <https://services.crtc.gc.ca/pub/ListeInterventionList/Documents.aspx?ID=223980&en=2015-134&dt=i&lang=e&S=C&PA=t&PT=nc&PST=a>

¹⁴ See McNally et al., cited above.

¹⁵ See the paper in this collection by Michael Fenn for discussion of some of technology trends anticipated to improve quality of life in the future.

¹⁶ Nordicity. (2016). *2016 Price Comparison Study of Telecommunications Services in Canada and Select Foreign Jurisdictions*. Prepared for the CRTC.

<http://www.crtc.gc.ca/eng/publications/reports/compar/compar2016.htm>, Organisation for Economic Co-operation and Development. (2015). *OECD Digital Economy Outlook 2015*. Paris: OECD Publishing.

¹⁷ Mbps = megabits per second and is a measure of data transfer speeds. The top speed for dial up internet access is 56 kbps (k=kilo), or about 10 times slower than the 5 Mbps target speed. Gigabit broadband is now available in parts of Ontario, with a 1 Gbps connection providing data transfer at 200 times the speed of a 5 Mbps connection.

¹⁸ Telecom Regulatory Policy CRTC 2011-291: Obligation to Serve and Other Matters.

<http://www.crtc.gc.ca/eng/archive/2011/2011-291.htm>

¹⁹ Canadian Radio-television and Telecommunications Commission. (2016). *Communications Monitoring Report*. Ottawa: <http://www.crtc.gc.ca/eng/publications/reports/PolicyMonitoring/2016/cmr.htm>, p. 247. This figure excludes mobile and satellite internet services, which are more expensive and offer lower download limits than broadband services provided over telephone or cable networks, or by fixed wireless. Given the limitations of mobile and satellite internet services, they would not allow for affordable access to high definition video streaming and as such would not deliver the functionality envisaged in the 2011 CRTC target.

²⁰ Defined as areas with populations below 1000, or with a population density below 400 per square kilometre. CRTC. (2016). *Communications Monitoring Report*, p. 270.

²¹ CRTC. (2016). *Communications Monitoring Report*, p. 266.

²² Statistics Canada. (2014). *Canadian Internet Use Survey, 2012 [Canada]: Household File*.

²³ See Landry, K. M., & Lacroix, A. (2014). *The Evolution of the Digital Divides in Canada*. Paper presented at the Telecommunications Policy Research Conference, Arlington, VA. <http://ssrn.com/abstract=2418462> and McKeown, L., Noce, A., & Czerny, P. (2007). Factors Associated with Internet Use: Does Rurality Matter? *Rural and Small Town Canada Analysis Bulletin*, 7(3), 1-15.

²⁴ Recent data shows rural Americans have lower technology adoption rates than urban Americans, and it seems reasonable to assume that a similar pattern would exist in Canada. Perrin, A. (2017). Digital Gap between Rural and Nonrural America Persists. Fact Tank. Pew Research Center.

<http://www.pewresearch.org/fact-tank/2017/05/19/digital-gap-between-rural-and-nonrural-america-persists/>

²⁵ The average minimum price for broadband in rural Canada is about \$52 per month. Monthly prices in rural Ontario range from \$30 - \$93, compared to \$53 in urban Ontario. See CRTC. (2016). *Communications Monitoring Report*, p. 52 and p. 256.

²⁶ Telecom Notice of Consultation CRTC 2015-134: Review of Basic Telecommunications Services.

<http://crtc.gc.ca/eng/archive/2015/2015-134.htm>. The quotes are from public interventions submitted in the first phase of the consultation, available online at

<https://services.crtc.gc.ca/pub/ListeInterventionList/Default-Default.aspx?en=2015-134&dt=i&lang=e&S=C&PA=t&PT=nc&PST=a>

²⁷ Saleminck, K., Strijker, D., & Bosworth, G. (in press). Rural Development in the Digital Age: A Systematic Literature Review on Unequal ICT Availability, Adoption, and Use in Rural Areas. *Journal of Rural Studies*. <http://doi.org/10.1016/j.jrurstud.2015.09.001>

²⁸ See for example Australian Medical Association. (2017). AMA Position Statement: Better Access to High Speed Broadband for Rural and Remote Health Care - 2016. <https://ama.com.au/position-statement/better-access-high-speed-broadband-rural-and-remote-health-care-2016>; Skerratt, S., Farrington, J., & Heesen, F. (2012). Section 5: Next Generation Broadband in Rural Scotland: Mobilising, Meeting and Anticipating Demand. *Rural Scotland in Focus 2012*. (pp. 70-85). Edinburgh: Rural Policy Centre, Scottish Agricultural College.; and Stenberg, P., Morehart, M., Vogel, S., Cromartie, J., Breneman, V., & Brown, D. (2009). *Broadband Internet's Value for Rural America: Economic Research Report Number 78*. Washington, DC: https://www.ers.usda.gov/webdocs/publications/err78/9335_err78_1.pdf

²⁹ Ivus, O., & Boland, M. (2015). The Employment and Wage Impact of Broadband Deployment in Canada. *Canadian Journal of Economics*, 48(5), 1803-1830.

³⁰ <http://tvo.org/article/about/tvo-decommissions-8-over-the-air-transmitters>

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³² <https://www.ibm.com/blogs/internet-of-things/iot-agricultural-applications/>

³³ Griffith, C., Heydon, G., Lamb, D., Lefort, L., Taylor, K., Trotter, M., & Wark, T. (2013). *Smart Farming: Leveraging the Impact of Broadband and the Digital Economy*. <http://24green.com/wp->

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³⁴ Coble, K., Griffin, T., Ahearn, M., Ferrell, S., McFadden, J., Sonka, S., & Fulton, J. (2016). *Advancing US Agricultural Competitiveness with Big Data and Agricultural Economic Market Information, Analysis, and Research*. http://www.cfare.org/UserFiles/file/10-7-2016BigData_v1.pdf

³⁵ See Department of Commerce Internet Task Force & Digital Economy Leadership Team. (2017). *Green Paper: Fostering the Advancement of the Internet of Things*. Washington, DC:

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[http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/ICCP/CISP\(2015\)3/FINAL&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/ICCP/CISP(2015)3/FINAL&docLanguage=En). The 2009-2015 Rural Digital Economy Research Hub project, led by researchers at

the University of Aberdeen, offers links to projects on rural applications of the Internet of Things at <http://www.dotrural.ac.uk/iot/>.

³⁶ Department of Commerce Internet Task Force, & Digital Economy Leadership Team. (2017). *Green Paper: Fostering the Advancement of the Internet of Things*. Washington, DC:

<https://www.ntia.doc.gov/other-publication/2017/green-paper-fostering-advancement-internet-things>,

p. 20. Note that this quote comes from comments submitted by the Center for Data Innovation, see the Center's full comments at <https://www.ntia.doc.gov/files/ntia/publications/cdi-2016-ntia-internet-of-things.pdf>.

³⁷ Telecom Notice of Consultation CRTC 2015-134: Review of Basic Telecommunications Services.

³⁸ Telecom Regulatory Policy CRTC 2016-496. <http://www.crtc.gc.ca/eng/archive/2016/2016-496.htm>

³⁹ Telecom Regulatory Policy CRTC 2016-496. Paragraph 21.

⁴⁰ The CRTC's Interconnection Steering Committee is to make recommendations on quality of service metrics to "reflect the objective that broadband Internet access services in rural and remote areas be of similar high-quality as those in urban areas." Telecom Regulatory Policy CRTC 2016-496. Paragraph 110.

⁴¹ Telecom Regulatory Policy CRTC 2016-496. Paragraph 79.

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⁴³ Canadian Radio-television and Telecommunications Commission. (2016). Backgrounder: New Funding Mechanism. <http://news.gc.ca/web/article-en.do?nid=1172419>

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⁴⁶ Telecom Regulatory Policy CRTC 2016-496

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⁴⁷ Innovation Science and Economic Development Canada. (2016). Connect to Innovate Application Guide. https://www.canada.ca/content/dam/ised-isde/documents/pdf/programs/computer-internet-access/connect-to-innovate/CTI_Application_Guide.pdf

⁴⁸ *CRTC Submission to the Government of Canada's Innovation Agenda*. Ottawa:

<http://www.crtc.gc.ca/eng/publications/reports/rp161221/rp161221.htm>

⁴⁹ National Broadband Task Force. (2001). *The New National Dream: Networking the Nation for Broadband Access*. Ottawa: <http://publications.gc.ca/collections/Collection/C2-574-2001E.pdf>, pp. 10-11.

⁵⁰ Telecommunications Policy Review Panel. (2006). *Telecommunications Policy Review Panel - Final Report 2006*. Ottawa: <http://dsp-psd.pwgsc.gc.ca/Collection/lu4-77-2005E.pdf>

⁵¹ Government of Canada. (2010). *Improving Canada's Digital Advantage. Strategies for Sustainable Prosperity – Consultation Paper on a Digital Economy Strategy for Canada*. Ottawa: http://publications.gc.ca/collections/collection_2010/ic/lu4-144-2010-eng.pdf

⁵² Government of Canada. (2014). *Digital Canada 150*. Ottawa: [https://www.ic.gc.ca/eic/site/028.nsf/vwapj/DC150-EN.pdf/\\$FILE/DC150-EN.pdf](https://www.ic.gc.ca/eic/site/028.nsf/vwapj/DC150-EN.pdf/$FILE/DC150-EN.pdf)

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⁵⁴ The 2016 mandate letters of all Ontario government ministers are online at <https://www.ontario.ca/page/mandate-letters-2016>. The quotations in this paragraph are from these mandate letters.

⁵⁵ Hillary Hartley took up this position in April 2017. <https://news.ontario.ca/maesd/en/2017/03/ontario-names-first-chief-digital-officer.html>

⁵⁶ See the mandate letters, at <https://www.ontario.ca/page/mandate-letters-2016>

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⁶² These communities are listed in Template 5 of the Connect to Innovate application guide, accessible at [http://www.ic.gc.ca/eic/site/028.nsf/vwapj/Template5_NewBackbone_CC_WholeSalePricing.zip/\\$FILE/Template5_NewBackbone_CC_WholeSalePricing.zip](http://www.ic.gc.ca/eic/site/028.nsf/vwapj/Template5_NewBackbone_CC_WholeSalePricing.zip/$FILE/Template5_NewBackbone_CC_WholeSalePricing.zip)

⁶³ Innovation Science and Economic Development Canada. (2016). Connect to Innovate Application Guide. https://www.canada.ca/content/dam/ised-isde/documents/pdf/programs/computer-internet-access/connect-to-innovate/CTI_Application_Guide.pdf

⁶⁴ The “last mile” terminology reflects a provider-centric perspective, in that it refers to the last mile of connectivity from the core network to the consumer. Community-centric providers often refer to this connection as the “first mile” as it is the first link from an individual to the internet. This perspective is widely adopted by First Nations communities, as documented by the First Mile Connectivity Consortium at firstmile.ca.

⁶⁵ Fixed wireless broadband provides a wireless connection to fixed location on a building. It is not the same as mobile broadband which provides connectivity to a device (smartphone or portable Wi-Fi hotspot) that can be moved. A fixed wireless signal can be distributed within a building using Wi-Fi.

⁶⁶ These options are discussed in detail in a recent report on improving broadband access in the Arctic. Telecommunications Infrastructure Working Group. (2016). *Arctic Broadband – Recommendations for an*

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⁶⁷ <https://ec.europa.eu/digital-single-market/en/main-financing-tools>

⁶⁸ <http://qexpressnet.com/system/>

⁶⁹ <http://www.quadro.net/internet/fibre>

⁷⁰ <http://www.hay.net/page/internet>

⁷¹ <https://www.wtcccommunications.ca/residential/internet/fibre>

⁷² <http://www.lakelandnetworks.com/get-gig-lakeland-networks-1-gigabit-fibre/>

⁷³ <http://www.infrastructure.gc.ca/plan/sc-cp-eng.html>

⁷⁴ <http://www.ci.sandy.or.us/sandynet/>

⁷⁵ <http://b.ci.ammon.id.us/fiber-optic/>

⁷⁶ A recent report by University of Pennsylvania researchers

(<https://www.law.upenn.edu/live/news/7099-new-penn-research-assesses-financial-viability-of>)

concluded that the business case for publicly funded networks was weak. This conclusion was quickly refuted by organizations that support the development of public and community-funded broadband networks, who argued that the benefits to communities are extensive and not easily assessed by models that focus primarily on financial returns on investment (<https://muninetworks.org/content/addressing-upenn-report-dud-data-unsuitable-approach>).

⁷⁷ <http://o-net.ca/>; <https://www.oldsinstitute.com/choose-olds/gigabit-broadband-in-olds/>

⁷⁸ <https://b4rn.org.uk/about-us/>. For a description of community-led broadband projects see Ashmore, F. H., Farrington, J. H., & Skerratt, S. (in press). Community-Led Broadband in Rural Digital Infrastructure Development: Implications for Resilience. *Journal of Rural Studies*.

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⁸⁰ <https://www.eorn.ca/en/About-EORN.asp>;

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⁸¹ <http://swiftnetwork.ca/>

⁸² <https://ec.europa.eu/digital-single-market/en/broadband-business-models>

⁸³ Felten, B., & Langer, T. (2016). *Structurally Independent Broadband Infrastructure Can Solve Perceived FTTH Coverage Issues*. SSRN. <https://ssrn.com/abstract=2794850>

⁸⁴ For a list of national broadband policies see Annex 1 in Broadband Commission for Digital Development. (2016). *The State of Broadband 2016: Broadband Catalyzing Sustainable Development*. Geneva. http://www.itu.int/dms_pub/itu-s/opb/pol/S-POL-BROADBAND.17-2016-PDF-E.pdf

⁸⁵ There is also extensive information in the academic literature, but this tends to be written for an expert audience and is less accessible to those looking for practical advice on broadband network financing and deployment approaches.

⁸⁶ This exercise could also document the availability of mobile service.

⁸⁷ Ontario's ORION network, supporting research, education and innovation across the province, is one such possibility. <http://www.orion.on.ca/about-us/>

⁸⁸ e.g. as noted in the Northern Perspectives commentary for this paper, Blue Sky Net's *Broadband and Associated Infrastructure Mapping Analysis Project* documents broadband availability in Northern Ontario. <http://www.connectednorth.ca/learn>. The federal Connect to Innovate program also offers extensive mapping of broadband availability, see <http://www.ic.gc.ca/app/sitt/ibw/hm.html?lang=eng>

⁸⁹ Cybera. (2016). *State of Alberta Digital Infrastructure Report*. Calgary. http://www.cybera.ca/wp-content/uploads/2016/09/2016_Digital_Infrastructure_Report.pdf

⁹⁰ Examples of how these approaches have been used in Canadian provinces are found in Rajabiun, R., & Middleton, C. (2013). Rural Broadband Development in Canada's Provinces: An Overview of Policy Approaches. *Journal of Rural and Community Development*, 8(2), 7-22. See also the European Commission.

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⁹¹ <http://www.omafra.gov.on.ca/english/rural/infrastructure-broadband/>

⁹² The record of the CRTC's 2015-134 consultation on basic telecommunications services offers extensive and compelling evidence of the social and economic costs of poor broadband connectivity borne by those in rural and remote Canada.

⁹³ Guidance can be found a European Commission directive on reducing the costs of deploying broadband networks, <https://ec.europa.eu/digital-single-market/news/directive-201461eu-european-parliament-and-council>

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Appendix 1: Resources to Advance Broadband Infrastructure Development

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NORTHERN PERSPECTIVES

Broadband Infrastructure for the Future: Connecting Rural Ontario to the Digital Economy

Charles Cirtwill & Emma Helfand-Green³

Ontario may be “going digital”, but the north is being left behind. Infrastructure investments for internet and cell technology that provide reliable, quality services are still lacking in many areas in northern Ontario, especially rural areas in the remote north (Fig. 1 & 2). The consequences of this lack of infrastructure are real and significant. It acts as yet another barrier to northerners participating fully in a changing economy, accessing advanced education and training and benefitting from public services that are increasingly being delivered online. As Middleton states, “Digital technologies surround us” yet, for many northerners, access remains a barrier. The inequity with regards to access to the broadband infrastructure necessary to engage in these technologies will result in northern Ontario lagging behind and missing out on new and emerging opportunities that are necessary for the future of the region.

Due to the geographic realities of the north, which spans almost 90 percent of Ontario’s geography while representing less than 10 percent of the population, online service delivery in the northern part of the province has real potential. Indeed, healthcare services and educational services delivered online can be an important means for providing and improving access for communities — especially First Nations — located in remote areas (Cloutier, Hoffman Morin & Dabous, 2016, p.6). Although virtual care “cannot replace in-person visits” with health professionals in all cases (Al-Hamand & O’Gorman, 2015, p.8), there are real opportunities to improve conditions for rural and remote populations through internet-based provision. This is especially true as the population of northern Ontario ages, which may result in older adults facing more physical barriers to accessing services in larger, urban centres.

Similarly, “geographical distance and possible isolation of northern Ontario can be considerably reduced through online education (Carter and Graham, 2012, p.1)” which can provide residents with opportunities to gain skills in a changing economy. However, without the appropriate broadband infrastructure, the benefits of this form of service provision cannot be realized.

Economic opportunities in rural and remote northern Ontario are also hindered by a lack of sufficient broadband infrastructure. As Mandy Masse (2016) writes, “By arming communities with opportunities that are unfettered by eternal download speeds and sprawling geography which place knowledge and opportunity out of reach, high speed broadband services can function as a springboard of opportunity for small, northern communities to expand their horizons, and markets.”

Furthermore, the importance of sufficient broadband infrastructure to enable cell and wireless communications are relevant for transportation and tourism in northern Ontario. In fact, a discussion paper released as part of the *Northern Ontario Multimodal Transportation Strategy*, highlights the importance of wireless connectivity for “enabling safer transportation” and argues that enhanced ICT infrastructure could improve the “ability to arrange carpooling, organize shopping assistance among people with limited access to personal vehicles and utilize smartphone apps aimed at improving mobility” (NOMTS, 2016, p.12). All of the above arguments demonstrate the far-reaching consequences to northern Ontario as a result of not being fully connected to the broadband system.

In her paper Middleton highlights the fact that many argue that there is “no business case to extend broadband to areas with low-population densities” (p.16). The Quintillion project described in Middleton’s paper, an initiative to bring fibre-optic cables to Alaska’s Northern coast, demonstrates that there is a business case to be made, with the right information.

³ The authors gratefully acknowledge the contributions to this piece made by James Barsby.

The Broadband & Associated Infrastructure Mapping Analysis Project, completed by Blue Sky Net and funded by FedNor, was a mapping exercise conducted to identify areas in northern Ontario that are underserved in terms of access to broadband. The project identified gaps in existing service areas, the bandwidths available in serviced areas and clusters of demand for the service in under and un-served areas (Connected North, 2017). Through this work, Blue Sky Net hopes to provide necessary information to help provide a better understanding of the demand for service in the north to help businesses develop a business case to improve access to the internet.

A discussion about costs of internet access, although beyond the scope of Middleton’s paper, is critical when thinking about northern Ontario’s unique barriers to online connection. In 2016, it was found that a basic internet plan, providing 5 Mbps internet service, cost between \$25–\$58 per month in urban Ontario, compared to \$30–\$93 per month in rural Ontario. However, 2014 Taxfiler data also shows that average family incomes in northern Ontario are lower than southern Ontario (\$71,532 as compared to \$80,698 respectively), meaning that those with lower incomes are required to pay more for access (Statistics Canada, 2016). Furthermore, First Nations individuals, often living in rural and remote communities, had a province-wide median income of \$22,546 compared to \$36,971 for the non-Indigenous population in 2010 (Leary 2016). The lowest median incomes for First Nations peoples were found in Manitoulin (\$17,249) and Kenora (\$17,404), both districts with significant rural populations (Leary, 2016). Thus, the conversation about access to internet services in northern Ontario must consider price, as many individuals, especially First Nations in rural and remote areas, are required to pay more, even though they earn less.

The development of a province-wide strategy to improve access to quality broadband infrastructure will only become more important in the future. As noted in Middleton’s report, while a number of government initiatives have been announced and are currently in place to address the discrepancy in access, challenges remain. Without collaboration between the various federal, provincial and private and non-profit partners, the ‘digital divide’ between rural and urban, and north and south, will continue, acting as an additional barrier for communities and individuals.

Figure 1: Map of households underserved by 5Mbps Broadband connections Northwestern Ontario in 2015. (Source: <http://www.connectednorth.ca/wp-content/uploads/2015/09/dwellings-underserved-northwest-new.jpg>)

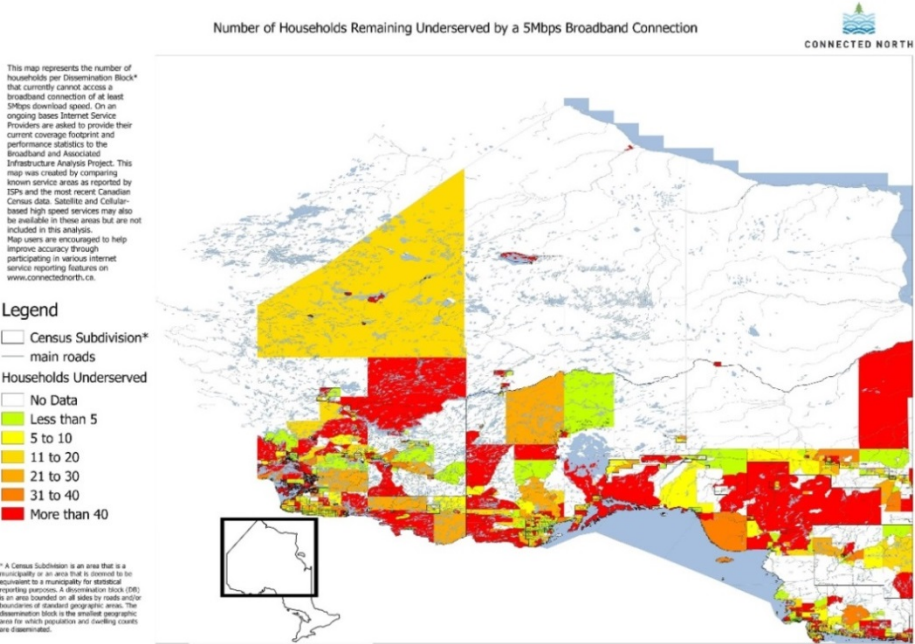
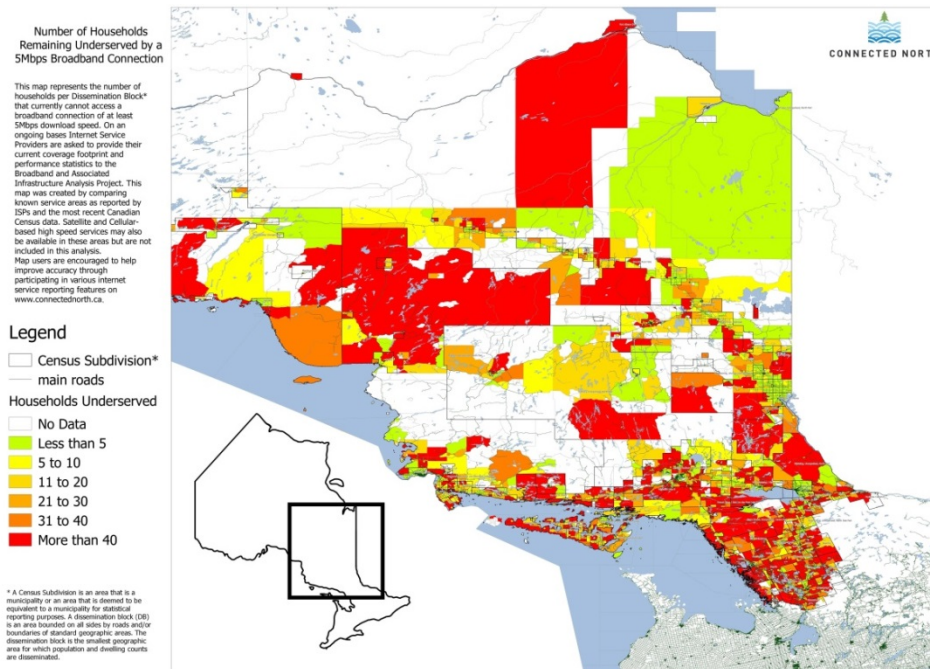


Figure 2: Map of households underserved by 5Mbps Broadband connections Northeastern Ontario in 2015.
 (Source: <http://www.connectednorth.ca/wp-content/uploads/2015/09/dwellings-underserved-northeast-new.jpg>)



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Rural Business Succession: Innovation Opportunities to Revitalize Local Communities

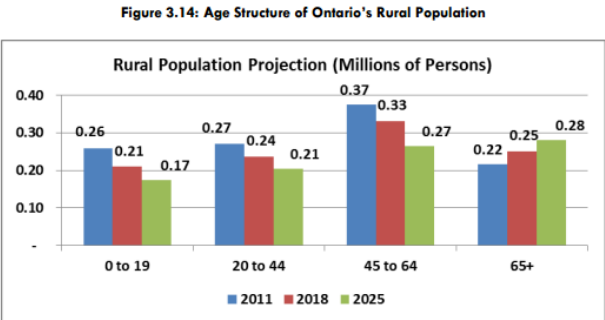
Paul Chamberlain

Introduction

Business succession is an important issue for the future vitality of rural Ontario communities. According to the Canadian Federation of Independent Businesses (CFIB), “75% of Canadian business owners will exit their business before 2022” and that nationally, over the next decade, this could affect as many as two million jobs with more than a trillion dollars being transferred.

A 2015 letter to the then-new Minister for Small Business and Tourism, quoted below, eloquently highlights the need to pay attention to business succession.

“Dear Minister Chagger, congratulations on your new appointment! You are in charge of a very important portfolio. Small business is the backbone of our economy. According to Statistics Canada, 98% of all Canada’s businesses are small. They make up ...43% of our GDP. // Unfortunately, it’s a vulnerable backbone. Small business, ... is in serious trouble. Many of the owners of these businesses are a stone’s throw away (or closer) from retiring. Nearly 60% are over 50. // Already in small towns across the county we see the evidence of this problem. Many shops on Main Streets are closed or for sale—the previous owners waited too long, didn’t make their business sustainable, didn’t find a buyer, or just got tired and gave up” (PROFITguide.com)



Aging populations are a crisis for all of Canada but, as the above letter points out, what is a crisis in an urban centre is even more critical on rural main streets. Ontario’s “rural population is aging rapidly not only due to the declining birth rate but also due to an out-migration of youth between the ages of 20 and 30 years old” ([Moazzami](#)). A trend of population decline affects many parts of rural Ontario. Canada has “one of the lowest rural population among G8 countries.” Not surprisingly, where we see declining populations we also see corresponding declining local economies ([Caldwell](#)).

The closing of rural businesses and shrinking of rural economic centres is a significant challenge, but it has also led to the creation of many innovative approaches to rural succession that are based in local asset-based community economic development.

For those who wish to learn more about any of the strategies presented, a selection of relevant case studies to inspire replication is included throughout, as are recommendations for policy and practice that point the way to an enabling environment for rural business succession.

Business succession usually refers to the life of an individual business being continued when its owner retires. This paper postulates a broader place-based perspective that enterprise succession needs to focus on the continuation of the entire local business community. This approach includes the more traditional individual business succession, but it also adds starting new businesses or growing existing businesses. This community-based and community-wide framework provides the rationale for a broader approach to succession that includes newcomer and youth enterprise development, as well as the development of local food systems, food hubs, co-ops and social enterprises. Succession for a rural business community requires all of these approaches if the business life of that community is to continue.

The agriculture and resource sectors have traditionally been the backbone of rural and northern communities. This paper will focus on agriculture with the presumption that many of the strategies are adaptable to other sectors.

“Employment on farms and in food-related sectors (still) represents about 15% of total employment in Ontario’s non-metro census divisions” (ROI). Given that the family farm is central to the agricultural sector, succession planning based on the established concept of transferring family farms, usually from one generation to the next, is an important starting point. The paper then explores alternative approaches to succession that are based in agriculture and food production. Farm diversification, land trusts, local food movements and food hubs are included. Youth and newcomers are two specific population demographics critical to rural Ontario communities and both are included in the succession strategies presented. There are also innovative business structures that are being employed in rural communities: co-operatives are a proven alternative succession strategy for enterprises in many sectors, and social enterprise development is another significant new strategy supporting rural community development. A discussion of both business structures is included.

To summarize, the paper examines one significant industry sector, two specific target populations and two alternative business structures and thus provides a review of innovative business succession strategies that could inform broader multi-sectoral efforts. The examples and illustrations of innovation that the paper touches on reflect those that also link up with community benefit purposes since those principles are inherent in the perspective of the Community Economic Development Network and that the author is most familiar.

Rural Business Succession

The authors of *The future of family farming: A literature review on innovative, sustainable and succession-oriented strategies* express their concern that research on the subjects of succession, innovation and sustainability is fragmented and that each topic remains in its own silo. They call for a multidisciplinary dialogue to bring these issues together. By taking a broad place-based perspective on the future of rural enterprise, this paper aims to play a part in stimulating that desired dialogue.

Australia’s Peter Kenyon, founder of the Bank of Ideas (www.bankofideas.com.au/), proposes an asset-based community development approach to rural revitalization. He says that “the best way to predict the future is to create it — successful rural communities need to play a proactive role in their future.”

Kenyon’s message is that communities have the potential to create significant impacts themselves, rather than wait for politicians and policy makers, and the strategies and examples presented in this paper are ways in which communities can take on proactive roles to address rural Ontario’s burgeoning succession crisis. Supportive government policies and programs will stimulate this work, reduce obstacles and hence increase impact, but communities can begin the work themselves.

The Family Farm: Succession, Diversification and Land Trusts

“80% of all business owners would like to see their business stay in the family but 50% don’t expect that to actually happen” and only nine percent have a formal succession plan. The overall goal of family succession is similar for farmers but they fare better, with 19 percent having plans. However, only 40 percent say they have identified a successor (CFIB).

The current lack of planning and minimal success in implementing plans remains a significant issue for Ontario, despite the Ontario Ministry of Agriculture and Rural Affairs (OMAFRA) having had a business lead around succession planning and having published tools and guides for at least 13 years.



Why 81% of family Farms have no Succession Plan

- 50%+ Too soon
- 29% No time
- 21% No advice or tools
- 13% Too complex

Fears:

- 1 losing identity
- 2 loss of wealth
- 3 conflict

When it comes to succession planning and reasons why farmers have hesitated, more than half of farmers say it is too early — although they are less than a decade away from retirement — a third say they have no time and a fifth say they don't have adequate advice and tools, despite many being available through governments and farm organizations. However, when digging deeper, research shows that fear of losing their identity or control is the number one reason farmers do not engage in succession planning (Amy Petherick, Country Guide, 2014).

Keeping the farm in the family is an important option and one with complex challenges. To quote Concordia University research from Quebec, "succession planning is complicated because it involves matters of the heart and mind," it therefore requires innovative approaches that

can address the social and psychological barriers. For business as a whole, the current reality is that only 30 percent of family businesses successfully transfer from the first to second generation and that goes down to only 12 percent for the third generation (Dawson and others, Concordia).

Given these numbers and the challenges outlined, additional strategies and supports that address the complexity of the issues are clearly needed, along with financial incentives. In May 2016, a private members bill was introduced to provide tax incentives to support small business succession, Bill C 274 An Act to amend the Income Tax Act (transfer of small business or family farm or fishing corporation). Unfortunately, despite strong support from CFIB, the bill was recently defeated.

On-Farm Diversification

In looking at examples of successful young farmers (FCC video: www.fcc-fac.ca/en/ag-knowledge/inspiration/young-farmers-see-bright-future-in-agriculture.html), diversification is clearly a part of many of these stories and this usually includes on-farm diversification. This is a strategy for improving the economics of the farm and for maintaining agricultural land for agriculture-related work. It also fits within the context of general economic diversification which is so critical to rural economic development.

On-farm diversified uses: means uses that are secondary to the principal *agricultural* use of the property, and are limited in area. *On-farm diversified uses* include, but are not limited to, home occupations, home industries, *agri-tourism uses*, and uses that produce value-added agricultural products.

PPS, definitions

Farm Credit Canada explicitly discusses succession through diversification and highlights the fact that "Established farms sometimes head in different directions when the next generation becomes involved" (FCC). In fact, prior to any complete transition, it is often the younger generation that initiates and manages a diversification activity while their parents continue to manage the core farm activities.

To quote OMAFRA's website, "Prime agricultural areas are a finite resource. Ensuring many economic opportunities are available in our prime agricultural areas will help protect the resource while also strengthening the rural economy." The OMAFRA Guidelines on permitted uses clarifies what "allowable on-farm diversified uses" means and also provides several key examples. Haldimand County, looking to inspire increased on-farm diversification developed their own list of examples currently operating in Ontario.

Local municipalities are often key to facilitating or blocking on-farm diversification through their zoning, official plans and land-use approval processes. Ontario's 2014 *Rural*



COUNTY OF HALDIMAND ON-FARM USES

The County of Haldimand is currently exploring a number of options for on-farm uses, most currently operating in Ontario:

- On-farm bakeries, wineries, restaurants;
- Artisan factories for cheese/yoghurt;
- Resort ranches, heritage tours, on-farm festivals, mazes and farm vacations or bed & breakfasts;
- Community Supported Agriculture, delivery services, meals-on-the-go or frozen foods;
- Cooperative and specialty products such as wool, feeds, hay, pellets, wood products;
- Biomass facilities;
- Small abattoirs and exotic meats;
- Recreational use of private lands (swimming, hiking, skiing);
- Aquaculture;
- Corporate and wedding occasions.

Roadmap: The Path Forward for Ontario addressed rural planning challenges and called for “more flexibility for development in rural areas, permitting additional agriculture-related and diversified on-farm development that ranges from grain drying to agri-tourism” ([OMAFRA, 2015 update](#)).

The OMAFRA Guidelines are designed to make provincial policy clear for municipalities, planners and farmers and the [Ontario Federation of Agriculture](#) welcomes the Guidelines and strongly recommends their broad circulation and promotion. However, the [Ontario Farmland Trust \(OFT\)](#) cautions that some of the acceptable uses outlined have no real connection with agriculture and open the door to unacceptable industrial use.

The town of Caledon provides an example of a local municipality that has amended its official plan to specifically support “value-added agriculture, farm diversification, prevention of non-farm development and land uses, consumer education on the importance of local agriculture...” ([OFT](#)).

Land Trusts

Land trusts are private, non-governmental charities that permanently conserve land and other natural resources by acquiring and stewarding them. Farm trusts acquire farmland or place a conservation easement on it to keep it as farmland in perpetuity. This can be an important component of succession as “landowners can have a direct say in the future use of their land and be given the assurance that their farms will be protected from future housing developments, aggregate pits and quarries, dumps and other non-agricultural uses” ([Ontario Farmland Trust](#)). OFT has, to date, protected over 1300 acres on 13 farms. However, at this point, about half of urban development is built on former prime agricultural land ([Statistics Canada, 2005](#)) and *Ontario is losing prime farmland at a rate of 350 acres per day* ([OFT](#)). This means that a dramatic expansion of land trusts is needed as one component of rural succession, and farmland easement agreements need to be promoted ([OFT](#)). In addition to stronger provincial protection policies, local municipalities can be significant players in promoting and supporting protection of agricultural land and the development of land trusts.

Local Food Systems and Food Hubs

Local food is not often directly referenced as a succession strategy. However, using a community-wide place-based approach, the economic benefits it provides — as well as the increasing youth engagement it promotes — means that it can reinforce a rural succession strategy.

A study by the **Canadian Co-operative Association** found that there were approximately 2,300 local food initiatives in Canada, with 24 umbrella organizations supporting and promoting these initiatives and over 200 co-operatives involved with local food. (CCA, 2009)

The Conference Board of Canada’s (CBOC) 2013 report *Cultivating Opportunities: Canada’s Growing Appetite for Local Food* reflects on the growing size and momentum of the local food systems and food hubs movement and its significant economic impact, and recommends strategies for further growth ([CBOC](#)). With 24 percent of Ontario food being sold in Ontario, this sector already represents an estimated \$8 billion GDP, employing some 187,000 people. Local farmers’ markets are one rapidly expanding manifestation of this movement and [2008 research](#) on the direct, indirect and induced economic impact of Ontario farmers’ markets estimated this to be about \$2.5 billion.

[Research out of Alberta](#) on farm direct-to-consumer sales indicates a 40 percent increase between 2008 and 2012. Ontario’s increase is similar and [Farmers’ Markets Ontario](#) now lists 179 markets. Direct farm-to-consumer sales include farmers’ markets, on-farm stores and stalls, U-pick, CSA and internet sales. US research quoted by the CBOC shows that revenue per unit through direct supply chains varies from equal to seven times as much as mainstream supply chains. This growth in local food is also linked to growing demands for organic food and it has a significant role in engaging young people with farming (see the section on Youth Entrepreneur Engagement on page 79).

The growing trends in local food also include the development of local food system approaches described by Nourishing Communities: "Food hubs are actual or virtual spaces through which food is collected and distributed to processors, retailers, restaurants, or other organizations. They can also provide space for other food-related activities including food preparation, handling and/or processing, education and skill-building and increasing food access." Their site features 17 Food Hub Case Studies from across Northern and Southern Ontario ([Nourishing Communities](#)). These innovative approaches supporting local food help to improve revenue margins and increase the potential sustainability of small to medium enterprise (SME) farms.

Local Food Fund
This \$30 million Ontario fund launched in 2013 has leveraged \$100 million for 163 local food projects.

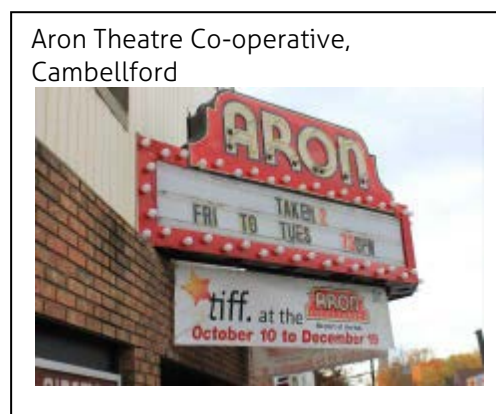
The Ontario government has recognized the economic impact of local food and developed a [local food strategy](#) with the [Local Food Act, 2013](#) as its centrepiece. The plan aims to increase the consumption of local food through consumer awareness and education, improve access to local food and ensure that there is sufficient supply to meet demand. [Foodland Ontario](#), the [Greenbelt Fund](#) and [OntarioFresh.ca](#) are three examples of provincial supports for local food. The province and Association of Municipalities Ontario (AMO) have also developed [Best practices in local food A guide for municipalities](#), an important tool to guide local government support for local food systems.

Co-operatives have been an integral part of all aspects of the local food movement, including production, processing, marketing and retail. In 2009, the Canadian Co-operative Association identified more than 200 local food co-ops and their [Working Together for Local Food](#) profiles eleven of them, four of which are in Ontario. It also highlights national, provincial and regional food co-op resources. There are also organizations such as the [Local Organic Food Co-ops Network](#) that have developed since then.

Co-operatives and Employee Stock Ownership Plans (ESOP) for Retirement Succession

Co-ops

For well over a decade the co-operative sector, both internationally and in Canada, has promoted co-operatives, and particularly worker co-ops, as an effective community-based strategy to address the coming crisis in business succession as baby boomer SME owners retire. In Canada the basis of this work has been Peter Hough's groundbreaking 2005 research report, [Succession Planning Using the Worker Co-op Option](#). This Canadian Worker Co-op Federation research used case study interviews to clearly outline the information and strategies to be considered in the decision making required to transfer ownership. It includes the roles and perspectives of the owners, managers and employees.



This comprehensive outline has been refined into [guides and fact sheets](#) for rural communities and is actively promoted by many provincial associations including the [Ontario Co-operative Association](#) and [Le Conseil de la coopération de l'Ontario](#) here in Ontario. With an estimated half million Canadian SME business owners expected to retire in the next 5 to 10 years, the co-op sector is actively promoting this model, with Quebec having the most established infrastructure. As described in recent Saskatchewan research, "the retirement succession campaign in Québec builds on three decades of successful worker co-operative development, and is promoted through a network of eleven state-funded but sector-managed regional development co-operatives." This research goes on to point out that the worker co-operative can help structure economic action in low-income communities ([Diamantopoulos & Bourgeois, 18](#)).

Although not developed specifically as a rural strategy, this co-op approach has been adopted in rural communities and the Saskatchewan research makes this potential role in rural revitalization explicit,

explaining that “co-operative succession plans can also help remedy the potential closure of key rural and remote community services on proprietor retirement; this tool can provide a vital prop to the revitalization of these strained communities” (24).

There is a long history of agriculturally based co-operatives in rural communities, including producers, marketing and purchasing co-ops. More recent examples of agriculture co-ops include local farms, greenhouses and food hubs. Beyond the agricultural sector, rural succession co-ops include solar energy, senior home care, community theatre and, in one Alberta example, Sangudo Opportunity Development Co-op was formed to find and finance a successor for a private meat packer.

Manitoba 2015 research provides US examples and compares case studies of two local transitions to worker co-ops: a yarn retail store and restaurant and catering business. In both cases, accessing capital was a barrier in the transition process. This same report highlights the fact that, despite there being more than 400 co-ops in the province, only six could be identified as having transitioned from a retail business to a worker or multi-stakeholder co-op in the past 20 years (Gould). Although there is not specific research to show it, based on the limited number of case studies available, this underutilization of the worker co-op succession model in Manitoba would seem to be true in Ontario and across most of the country.

The recent *Report on Business* article, “How the co-op model keeps businesses alive when boomers cash out,” quotes Russ Christianson, Ontario Co-op developer, on co-op possibilities as many thousands of SME business owners retire, “Even if we got a small percentage of [companies changing hands] going to co-operative ownership, that would still be a large number” (*Globe & Mail*). At this point it is a succession model that has not gained the momentum required if it is to provide the impacts needed in Ontario’s rural communities.

Employee Stock Ownership Plans

In *Becoming Employee Owned: Options for business owners interested in engaging employees through ownership* (2014), the Democracy at Work Institute describes, compares and provides case studies for three primary business transition approaches to share ownership with employees: Worker co-operatives, Employee Stock Ownership Plans (ESOP), and Management buy-outs. It highlights the growth and stability advantages of employee-owned firms and describes the popularity of the ESOP in the US.



ESOPs — where employees can own a small percentage of the business but do not collectively have controlling interest — have long been used by corporations of all sizes, primarily as a strategy for employee engagement and retention. Two larger Canadian examples include Simpsons-Sears from the '60s and WestJet today. These ESOPs need to be distinguished from those that are about succession — with actual transition of ownership to employees having controlling interest.

In the US, regulations and related tax benefits are national, while in Canada ESOPs are regulated provincially. Despite provincial jurisdiction, there is a national Canadian Employee Ownership Association dedicated to promoting ESOPs. According to *Advantage Magazine*, “forty percent of companies on the 2011 Profit 200 list, which compiles the 200 fastest-growing companies in Canada, are composed of businesses with some form of employee share-ownership program.” It goes on to quote Sherman Kreiner, then the president and CEO of Crocus Investment Fund, from a 2001 meeting of Parliament’s Standing Committee on Finance, “Employee-owned companies with participative management outperform conventional companies with regard to productivity, sales growth, and employment growth... Employee ownership is an effective mechanism for intergenerational transfer of family-owned businesses, and it also ensures that decisions affecting local businesses are made locally” (*Advantage Magazine*).

The Canadian Chamber of Commerce strongly recommends that the federal government increase information and tax incentives to support business succession and ESOPs. It acknowledges BC’s ESOP

program but considers it inadequate. In 2014, Manitoba introduced an effective ESOP tax credit which is endorsed by the [Canadian Federation of Independent Business](#). Ontario had an Employee Ownership Program with tax credits for labour-sponsored employee ownership but unfortunately it was discontinued in 2005. Ironically, this was the same year that the Canadian Worker Co-operative Federation called for a pan-Canadian strategy to address the coming crisis in business successions ([Hough](#)). Currently, the federal government's [Canada Business](#) website provides advice on succession which includes the sale of a business to employees as one possible option. However, this online advice page is by no means the national strategy called for.

Immigrant Enterprise for Rural Succession

Developing a strong immigration plan is an important component of the Government of [Ontario's policy](#) to address skills shortages and to create a strong Ontario economy. The [Community Immigrant Retention in Rural Ontario \(CIRRO\)](#) provides newcomer attraction and retention tools were designed to support "succession planning, skills attractions and business growth" for rural communities.

Now concluded, the REAP project researched immigrant entrepreneurship in agri-food. The REAP literature review clarifies that "the literature on IE's (immigrant enterprises) in rural areas and smaller communities is limited," however studies have highlighted the increased entrepreneurial depth IE's provide and the currently "unrealized pool of talent and experience" they represent ([REAP](#)). Studies have also posited that immigrant entrepreneurship is a form of societal inclusion because it increases interdependence and participation ([Eraydin et al in Caldwell](#)).

Immigrants usually prefer to settle where they have family and friends and economic and educational opportunities, which can be a challenge for smaller rural communities ([REAP](#)), as are "lack of public transportation, affordable housing and childcare ...(and) lack of settlement services" ([Passmore on RDI report](#)).

For immigrant entrepreneurs, challenges include: "language barriers, lack of start-up fund, lack of networks, discrimination, (their) own cultural restrictions," as well as their "motivation to become self-employed (choosing to be self-employed vs. being pushed into it as a result of labour market difficulties)" ([Chuong & Rashid](#)). These challenges were identified in a York Region study included in a review of the priorities of seven LIPs (Local Immigration Partnerships). It is worth noting that York was the only one of the seven LIPS to specifically include self-employment or entrepreneurship as a priority.

Is your community immigrant entrepreneur friendly?

Wise5
Community
Guide Checklist
& Case studies

[REAP](#) concludes that, "attraction and retention is built on several key factors, most notably economic opportunities and acceptance and inclusion into the receiving community" ([REAP](#)). There are several rural Ontario municipalities that have been doing research and implementing strategies to attract immigrant entrepreneurs. An [ROI infographic](#) summarizes recommendations for newcomer engagement that builds social capital and the [WISE5 Winning Strategies for Immigrant Entrepreneurship in Five Communities](#) ([Wayland](#)) provides a checklist and case studies to guide effective policy and practice.

A number of rural counties are seeking to attract entrepreneurial immigrants. The Leeds & Grenville Immigration Strategy "suggest(s) that there is a sound interest among both skilled immigrants (including those interested in self-employment) and business immigrants to consider alternative living destinations to the large cities where they have landed upon arrival. ... 63% of business immigrants were interested in relocation." This strategy also highlights their needs. "Business immigrants,... primarily requested information support to help them identify and connect with business opportunities in the region that provide highest return on investment, as well as incentives programs to subsidize their investment" ([Leeds & Grenville](#))



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Resources

Looked at with the perspective of this paper's community-wide succession approach, immigrant enterprise business development and the development of any rural businesses by immigrants is integral to rural business succession whether they are purchasing a business from a retiring owner or developing a brand new business.

In 2016, the Conference Board of Canada hosted the first-ever conference on *Entrepreneur & Investor Immigration Summit 2016: Vision, Action, Prosperity* and the "Active Matters" session looked at "How can they leverage their options to attract business immigrants to smaller communities, and replace retiring Canadian business owners across the country?" Such mainstream focus on rural succession through immigrant entrepreneurs as part of business succession is to be commended and should be built upon.

The LIPs are not a complete solution and their terms of reference seldom include a focus on entrepreneurship. However, they do facilitate local place-based approaches to encourage and support newcomer settlement and this has opened the door to some effective practice that promotes and supports immigrant entrepreneurs. Based on the perspective of this paper, entrepreneurship should be integrated into every rural LIP.

While immigrant enterprise in rural communities goes far beyond the agri-food sector, REAP's research reports and tools provide significant information to further develop policy and practice in the agri-food sector. Many of these findings are transferable to other sectors for which similar rural research is recommended.

A 2005 Manitoba Rural Development Institute paper provides an extensive list of rural immigration challenges with recommended policy and program responses. The paper concludes with advice that provides an important perspective on rural immigration. "While many rural communities are looking to immigration as a means to stimulate economic development and increase population, immigration is not a panacea for the challenges they face. At best, immigration may serve as an important facet of well-conceived community/regional development strategies, but only when stakeholders are fully aware of and prepared to meet both opportunities and challenges with equal enthusiasm" (*Silvius and Annis*).

Youth Entrepreneur Engagement

As the *Strengthening Rural Canada* paper makes clear, youth out-migration, particularly of 20–30 year olds, is significantly exacerbating the rural population decline based on birth rates and aging. Out-migration is highest in the 25–29 age group but then drops dramatically above age 30 and particularly above age 40. This drop is a positive indication that that, once well established in rural communities, families are staying. Despite this, current projected rural populations for all age groups other than seniors are expected to decline and that decline is sharpest in the prime earning years (45–64) (*Moazzami*). In addition, the average age of Canadian farmers is 52. This is 13 years older than the workforce average (*FCC video*: <https://www.fcc-fac.ca/en/ag-knowledge/inspiration/young-farmers-see-bright-future-in-agriculture.html>).

Strategies to keep youth in rural communities and to attract new youth include many of the entrepreneurship initiatives already discussed: family farm succession, on-farm diversification, local food and food hubs as well as immigrant entrepreneurship.

Approaches to keep youth in rural communities and to attract new youth are critical to the vitality of rural communities, and both the federal and provincial governments have initiatives that help with this goal. Both levels of government integrate youth entrepreneurship as a subset of broader employment strategies, though few are specifically geared to rural communities. The federal *Youth Employment Strategy* includes Skills Link, Career Focus and Summer Work Experience, yet only Skills Link specifically mentions rural. Ontario's Youth Jobs Strategy includes Youth Job Link and Youth Job Connection and Youth Employment Fund, a 4–6 month placement that does reference rural. The Youth Entrepreneurship Fund and Youth Innovation Fund include programs to support entrepreneurship through both high school curricula and college-level coaching and include the Summer Company, a program of the government of Ontario that helps young people between the ages of 15–29 to start and run their own summer business by providing

funding, advice and services. Information on the Government of Ontario's support for rural youth entrepreneurship is brought together in *Rural Roadmap: The Path Forward for Ontario* but that report would not speak to any new programs over the last few years

Initiatives such as 4H clubs have been engaging rural youth in agriculture for generations and anecdotally these are still considered successful. ROI's Build Leadership and Youth Engagement Showcase are more recent initiatives. Many youth move away to go to post-secondary education but evidence shows, if the interests and passions of youth are engaged in communities prior to leaving for school they are more likely to return. A recent ROMA conference session, presented by the Rural Ontario Institute, on "Counteracting Youth Out-Migration" made this point by asking two of the Youth Engagement Showcase nominees to speak about their involvement in their rural or northern Ontario communities.

Peter Kenyon who describes Australia's *Are your MAD?* (Making A Difference) program also makes clear that "one of the key characteristics of rural revitalization is an inclusive youth leadership growth strategy to make them part of the solution" (FCC - Kenyon: <https://www.fcc-fac.ca/en/ag-knowledge/inspiration/community-development-and-rural-renewal-with-peter-kenyon.html>).

Research emphasizes the importance of taking a holistic approach to youth entrepreneurship that integrates other strategic components such as youth recreation and employment opportunities. A few specific strategies that have proven successful include providing opportunities to really listen to youth, engaging them on local committees and establishing peer youth awards. A Nebraska organization that provides *20 Clues to Rural Community Survival* includes, "Deliberate Transition of Power to a Younger Generation of Leaders, People under 40 regularly hold key positions in civic and business affairs."

FarmStart was an innovative Ontario program that supported the development of young and new Canadian farming entrepreneurs for 10 years. Unfortunately, funding for this program has been discontinued. Coming out of this work, "the creation of a Farm Renewal and Business Development Pillar in the next Agricultural Policy Framework" is recommended to support the farming challenges facing rural communities.

A northeastern Ontario study shares several proven Youth Attraction and Retention Strategies that include being proactive and intentional, using an asset-based approach, being youth-led, branding the community as pro-youth and involving youth that have stayed or returned. The importance of setting specific goals and promoting local entrepreneurship are also emphasized (Robichaud).

Outside of farm succession, rural youth entrepreneurship is not often specifically associated with rural business succession. BC's Project Comeback provides some exceptions and presents a model worth sharing. This project worked in six rural communities to "identify, build and share community-based knowledge and evidence about innovative strategies that enable youth to stay in or move back to their rural hometowns." Within the many strategies identified, entrepreneurship was often included, sometimes with a specific focus on women, First Nations, mentorship or social enterprise (BC Rural Network and others).

In most rural communities, Community Futures Development Corporations (CFDCs) play a critical role in entrepreneurial development and most have programs or services specifically geared towards youth, a few examples include Cornwall's Be the Boss program, the Northern Ontario Youth Enterprise Camps or PELA's Empowering Young Entrepreneurs.

Understanding the Realities: Interim report of the Expert Panel on Youth Employment, 2016 shows that Ontario youth unemployment rate is 10.6 percent, over twice the rate for 30–64 year olds and highlights that "while entrepreneurship is only a small part of the employment equation, it can have a big impact." This report also points to transportation as a major barrier that needs to be addressed for rural youth. For entrepreneurs this specifically means "limited access to innovative programs like incubators and accelerators that exist in urban areas." The report also recognizes social enterprises as "innovating to bring young people and employers together in small towns through mentorship and project-based employment".

Social Enterprise: Business Innovation for Community Benefit

Social enterprise (SE) is a term developed in the 80s for organizations selling goods or services in the market to effect social impacts, something that has been happening without a specific name for centuries. SE has no universally accepted definition. For the Government of Ontario, "social enterprises use business strategies to achieve a social or environmental impact. While generating revenues from the sale of goods and services, social enterprises also expressly intend to create positive outcomes...." The federal government is more specific about what happens to profits and adds that "the social enterprise can be for-profit or not-for-profit but the majority of net profits must be directed to a social objective with limited distribution to shareholders and owners." Both of these definitions include a host of organizations, some of which have been part of rural Ontario communities for generations; key examples include farmers' markets, thrift shops, community theatres, museums and heritage sites. Similarly, Ag. Societies and Fair Boards across Ontario conduct money-making activities and direct the revenues to agricultural education and awareness.

As the concept of SEs has developed, so has their diversity and innovation. SEs include non-profit organizations seeking to diversify revenue or seeking to support their marginalized clients through training or employment, they also include individual social entrepreneurs developing a for-profit business with a social or environmental mission. Ontario-wide research from 2015 shows that, as a sector, SEs generate an estimated \$2 billion in annual sales and employ some 58,000 people. Approximately \$0.6 billion of these sales and 10,000 of these employees would be in rural Ontario communities (Chamberlain and others).

Social enterprise intersects with much of what has been discussed in this paper, including youth entrepreneurship, food systems and co-ops. As highlighted in the Rural Roadmap, the Rural Social Enterprise Constellation (RSEC) was a partnership that supported and reported on the roles of local, regional and provincial intermediaries that develop rural social enterprise. Examples of the diverse types of non-profit organizations currently providing these intermediary supports included a CFDC, a United Way, a housing organization, a women's self-employment program and local networks (Lang & Ferguson).

SEs are also being developed and run by municipal governments and First Nations. As with non-profit organizations, SEs often enable municipalities to earn revenue while supporting employment and maintaining cultural, social or environmental assets. A forthcoming PhD dissertation with an in-depth literature review entitled, *Literature Review, Rural Municipalities as Intermediaries in Social Enterprise Development: The Role of Place-Based Public Policy* highlights the fact that "Ontario municipalities are operating diverse social enterprises that include: museum shops, community halls and arenas, art galleries, public transit, festival heritage days, solar & renewable energy, library enterprises, a ski hill & ski school, a community radio station, humane societies/ shelters, gravel & road services, seniors & assisted housing, a recycling plant, community gardens, a youth centre with numerous enterprises, and an environmental assessment firm." In addition, it describes how "rural municipalities are also supporting non-profit social enterprises by providing free or low-priced space leasing, entering into co-ownership of buildings, sitting on committees, providing volunteers, facilitating accessible housing, grants, and enacting by-law revisions to support organizations like Habitat for Humanity; waiving water, sewer, water hook-up fees."



This literature review has shown that the "intersections of place-based policy and social enterprise development in rural Ontario municipalities" are plentiful and potentially powerful. It concludes with the reflection that there is currently little rural-focused social enterprise research in Canada and that, given the potential for significant economic and social benefit for rural communities, this research and the resultant policy development is much needed (Ferguson, Mary).

The province of Ontario's new Social Enterprise Strategy 2016-2021 will expand the range of resources for social enterprise. To date, access for many rural communities remains a challenge and unfortunately the strategy does not provide much in the way of targeted support for the intermediary organizations

identified as so essential by RSEC. The strategy is planning to support social enterprise capacity building through four regional ONE partnerships. At this point many ONE's do not have the expertise to support rural social enterprise development but this is something that should improve as these regional partnerships develop.

Missing Pieces, Connecting Fragments and Moving Forward

The forgoing brief overview of several innovative rural community-based succession approaches has, due to space limitations, omitted several industrial sectors that are significant to rural community-based business succession. These missing enterprise sectors include, manufacturing, energy, arts, tourism and the knowledge sector, including IT and, of course, the resource sector. Some have been omitted altogether and some have been fleetingly referenced through one of the linked case studies. Tourism is explored through *The Visitor Economy and Rural Cultural Amenities* (page 113) another of these *Foresight Papers*.

This paper has also not addressed the implications of the fastest growing Canadian population, Indigenous peoples. Ontario has the highest number of Indigenous people in the country and, as advocated by CRRF in their *State of Rural Canada, 2015*, "(r)ural development in Canada must address the needs of the Aboriginal People of this country and embrace them as full partners in rural development, particularly as it relates to the development of the natural resources sector" (Lauzon and others).

Despite these omissions, the paper has demonstrated that beyond the continuation of individual businesses, effective rural business succession will focus on ensuring the continuation or revitalization of rural business communities. The array of place-based approaches link succession, innovation and sustainability together. The sections, having been organized around several different principles — an industrial sector, agri-food, two business structures, co-operatives and social enterprises, and two target populations — immigrants and youth, overlap and interconnect. Many rural immigrant entrepreneurs are young entrepreneurs. By definition, family farm succession involves young entrepreneurs. But young entrepreneurs are also a significant part of on-farm diversification, local food systems, food hubs, co-operatives and social enterprises. Many co-operatives are engaged in the agri-food sector and many would also be considered to be social enterprise. The areas of overlap and interconnection are numerous.

The succession strategies profiled here are asset-based community development approaches. Although Australia's Bank of Ideas has been referenced several times, here in Ontario, the Tamarack institute's Vibrant Communities program utilizes a similar approach. Although most of Tamarack's work is broader than rural communities, they do share a number of resources specifically designed for small and rural communities.

Family farms and agri-food remain hugely important for rural communities and innovative diversification approaches are taking advantage of current food trends to create growth in a number of communities. Youth and newcomers are key to population stabilization and enterprise development and communities that have focused welcoming and engagement strategies are having an impact. Co-operatives and social enterprises are two forms of business development particularly suited to community-based business succession.

A number of relevant case studies and tools have been shared with the aim of supporting practice and inspiring adaptation and replication. While it is helpful to learn from the successes in other communities, ultimately a place or community-based approach acknowledges that the solutions to the succession crisis in rural communities will be developed in and grown by those communities. Each section has pointed the way to enabling policy and practice. The policy and program directions called for here should be supported and implemented but they alone are not sufficient. In enabling communities with appropriate tools and resources, governments and policy makers will make this work easier and more impactful. But communities do not need to wait, indeed many are not waiting, they are leading the way, working to mobilize their own assets for business succession and creating strategies together to solve the crisis in their own communities.

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NORTHERN PERSPECTIVES

Rural Business Succession: Innovation Opportunities for Local Communities

Charles Cirtwill & Emma Helfand-Green⁴

Business succession planning is critical in an area like northern Ontario that — like many other rural communities — is experiencing a combination of both population aging and decline.

In his paper, Chamberlain pays specific attention to business succession with regards to farming. Therefore, a quick note on the agricultural sector in the northern part of the province is warranted. According to the 2016 Census of Agriculture, the total number of farms operating in northern Ontario (across the north's 11 districts) decreased from 2,261 in 2011 to 1,985 in 2016. Furthermore, the average age of farm operators in northern Ontario in 2016 was 54.7 years, up from 54.3 in 2011 and there were only 270 farmers under the age of 35.

Interestingly, the average age of farmers in northern Ontario is actually slightly below that of southern Ontario (54.7 years compared to 55.9 in 2016). Nonetheless, with many of the current farm operators in northern Ontario approaching retirement age, the need for succession planning is apparent. This is especially relevant given the fact that many in the north see agriculture as an important economic opportunity for the future of the region, as more and more farmers from southern Ontario move their operations north to take advantage of government grants and to access property at a more affordable rate (White, 2017).

More generally, succession planning is key for northern Ontario, and unfortunately major gaps still remain. A 2015 study by the Sudbury Chamber of Commerce found that 51 percent of business owners surveyed had no succession plan in place. The top reasons cited for not having a succession plan in place were: no one to take over, no buyers, not interested/no need, uncertainty over future or too early. The report also found that around 80 percent of businesses without a succession plan end up shutting their doors — a troubling figure. Unfortunately, this report focused on an urban centre and data was unavailable for rural areas. Nonetheless, the results demonstrate that this issue is a real problem facing communities in the north.

As Chamberlain proposes, immigrant entrepreneurs offer an important response to the gap left by retiring business owners in northern Ontario. A report by the Far Northeast Training Board interviewed 55 immigrant business owners in northeastern Ontario (Curry, 2017). As author Don Curry explains, “the immigration of newcomer business owners represents a new flow of entrepreneurs to maintain the regions vitality.” One of the recommendations stemming from this report was that communities in northeastern Ontario “become more involved in business succession planning. This could include developing a framework for the activities of EDOs [economic development officers] in relation to recruiting new business owners” (Curry, 2017). This demonstrates that many communities, both rural and urban, are beginning to consider the important role that newcomers can play in succession planning.

For northern Ontario, rather than focusing only on international newcomers, communities can and should consider the role that newcomers from other communities within Ontario, or those from other provinces in Canada, can play in business succession planning. There are many opportunities to attract new residents, especially those in larger urban areas looking for a different type of lifestyle and more affordable housing.

Another interesting consideration, especially relevant in northern Ontario, is the role that the Indigenous

⁴ The authors gratefully acknowledge the contributions to this piece made by James Barsby.

population can play in filling positions vacated by retirements. Unlike the general population, the Indigenous population in the northern part of the province is growing and will represent an important contribution to the future labour force. A series of reports by Moazzami and Cuddy highlight that the Indigenous population as a share of total population is projected to increase in all eleven districts in northern Ontario (Table 1). The region has already seen a rise of Indigenous entrepreneurship with a number of highly successful operations opening up across the region. There may be opportunities for this population to play a role in purchasing and running existing businesses, representing an innovative approach to business succession planning.

Table 1: Projections of the Indigenous population’s share of the working-age population (aged 20–64) as a percent of total. (Sources: Moazzami & Cuddy, Human Capital Series reports, Thunder Bay: Northern Policy Institute)

	2013	2041
Greater Sudbury	8.1	10.6
Algoma	15.8	23.9
Kenora	28.8	43.5
Rainy River	23.4	46.8
Manitoulin	40.3	62.1
Nipissing	10.4	12.9
Thunder Bay	11.0	19.3
Cochrane	11.2	20.6
Timiskaming	4.9	7.2
Parry Sound	5.9	7.3
Sudbury	15.1	24.6

Finally, there have been some unique innovations for business succession planning implemented in northern Ontario through the post-secondary education system. The Northern Ontario School of Medicine in Sudbury and Thunder Bay, and the Bora Laskin Faculty of Law through Lakehead University in Thunder Bay have developed unique curriculums and placement programs to help keep graduates in northern districts. The programs also have specialization areas that further facilitate northern experiences, such as offering a focus on Indigenous, environmental and small practice. The two programs were created to address shortages of doctors and lawyers in northern Ontario, and to ensure that new professionals filling these roles have the right skills, experience and support systems to practice in a northern context. Northern College has also implemented similar programs, such as the announcement of a new Emergency Medical Services complex that merges educational areas with community-responder space. The merging of student and practitioner spaces enables students to gain hands-on learning experiences which may help with succession down the road. These unique programs are a few of the ways that communities in northern Ontario are addressing upcoming skills shortages and conducting business succession planning.

Overall, the solutions proposed by Chamberlain have all been implemented in communities across northern Ontario and highlight the fact that a combination of strategies is important to address this looming reality. Considering the role of a broad definition of newcomers — including international immigrants, those from within Canada and Ontario, and the role that the growing Indigenous population might play, will be important for rural business succession planning in the region.

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Rural Volunteerism: How Well is the Heart of Community Doing?

Tracy Birtch

Introduction

Volunteerism drives innovation and change, creates connections between social groups that build resiliency and is the substance that maintains a community's culture and services. Without strong and vibrant volunteerism, the quality of life and health in rural communities begins to suffer.

The International Labour Organization defines a volunteer as "an individual who performs unpaid, non-compulsory work, either through an organization or directly for others outside of their own household." Using this definition, two essential characteristics that identify volunteers are: 1) monetary and/or in-kind compensation is not provided, and 2) there is no pecuniary obligation to perform the task, activity or service.

According to Statistics Canada, in the period from 2004 to 2013, between 43 percent and 50 percent of Ontario's non-metro population volunteered for a group or organization, donating their time, energy and skills to charities and non-profit organizations. These formal volunteering rates are similar (slightly higher) to the participation levels of volunteering in metro areas. The time donated is approximately two billion volunteer hours nationwide, or the equivalent to more than one million full-time jobs. The economic value of volunteering in Canada has been estimated at \$50 billion each year, a "conservative estimate that does not include any capital investment, nor improved skills and attitudes." (Alexander, Gulati, 2013)

The heart of volunteerism, however, reaches beyond monetary motivation. For some, volunteering is an expression of kindness that is motivated by a genuine care and concern for the well-being of others and the community as a whole. Others are also motivated by the networking potential or experiences gained that may result in increased social opportunity and cohesion. Regardless of an individual's motive, a community benefits from volunteerism by way of the investment of an individual's limited resources, such as time and talents, as well as the social capital gained through strengthened social networks. It is the essence of "neighbours helping neighbours" that has been the glue that helps to sustain one another through hardship and also makes for higher quality of life where recreational and cultural opportunities are part of vital communities. Community is not the only beneficiary of volunteerism, as volunteers themselves have the opportunity to try new job experiences before making costly investments in training and can develop and improve skills for future paid work.

Formal volunteering (unpaid help given as part of a group, club or organization to benefit others) is common in both urban and rural communities. Data from 2013 show that the percentage of individuals volunteering formally is somewhat higher in Ontario non-metropolitan communities, but not markedly so. There is a notable statistical distinction between the rural and urban experience, in that rural volunteers are more likely to volunteer for more than one organization. Informal volunteering — helping a neighbour or caregiving for a relative — is something that 83 percent of Canadians and Ontarians report they do.

Informal volunteering has historically been higher in rural communities, according to the report *Formal and Informal Volunteering and Giving: Regional and Community Patterns in Canada*, but that difference was also reported to be shrinking.

Volunteerism is a common characteristic of most communities; however, unique community features may affect its expression. It may be readily understood that the rural life experience is different from the urban life experience, even within the rural context, each community can vary in its culture, values, demographic make-up and life expressions. For example, a rural southern Ontario agricultural community may vary significantly from a rural northern Ontario forested community that is culturally focused on hunting and forestry.

To address such unique rural differences, the Huron County Health Unit has developed a Rural Lens. The Rural Lens is a process that considers the priorities, needs and unique values of a rural community whenever a new initiative is being developed or adapted. Using such an approach protects a community from having solutions introduced on the basis that they worked in another region only to have them fail locally because they did not consider the communities' unique priorities and needs.

Historical Relevance of Volunteerism

Historically, volunteering to help one another was not only essential for survival, but was also an engrained social construct in rural communities. Many activities that were once primarily in the informal economy moved into the formal exchange economy as industrialization progressed. This process came to many remote, primarily resource-dependent communities later than elsewhere. Also, in many of these communities, organized service provision may not have been available, or was only available at great distances. This service gap resulted in a greater need to depend on one another, as family and neighbours gave their time and effort to support one another throughout the various stages of life. In this sense, in the rural context where formal service providers are still currently fewer and farther between, communities are still more reliant on the informal unpaid exchange of labour than other places.

Volunteering in rural settings was a mix of organized and unorganized activity. This mix, over time, fostered a sense of self-reliance for solving local challenges in many rural communities. Examples of this include the Grange Movement, which saw the development of rural co-operatives where farmers came together to buy supplies in bulk in order to combat increasing freight charges. Or the development of the Federated Women's Movement that taught domestic skills to rural women and implemented volunteer run "Well Baby" mobile clinics to assess the well-being and development of infants.

One of the major accomplishments of volunteerism in rural communities is that it has filled in the gaps of economic restraint and leveraged available resources for community benefit. Entire community infrastructures have been built and historically maintained through the efforts of volunteer service clubs and citizens.

Faith organizations, which are often overlooked in volunteerism research, represent one of the largest pools of volunteers. Historically, faith organizations were a more predominant hub of social activity that served a vital function in meeting the needs of local community members than they do today, although community needs remain just as great.

Current Rural Demographic Trends

Many rural communities report a sense of community belonging that is higher than provincial averages. Nonetheless, there is a range of variability among rural places in terms of the strength of their social networks. Meanwhile, vast geographic areas and limited transportation options can also result in feelings of loneliness and isolation.

Many rural communities are experiencing a slow decline in population, although this is dependent upon where they are in the province, as there are also rural communities experiencing positive but small net in-migration. Outside the urbanizing fringe, rural communities experiencing net in-migration are having a net gain of residents in their later years (45–64 years). Across the board, rural communities typically experience the loss of a large percentage of younger adults (18–24 years) who move out of rural areas for job opportunities and/or schooling. This in-migration trend of older adults and net out-migration of youth eventually leads to larger percentages of senior residents in the population.

Since many seniors live on fixed incomes, are living longer and are also more likely to be living alone than in the past, the pressure on informal caregivers is increasing and well recognized. In some agricultural and remote areas the "old" elderly are moving into centers where services are more readily available but where they may have less well-developed social networks.

Understanding the local demographic pattern is central to forecasting the impact on volunteerism not just because demographics drive social needs but also because volunteering patterns are different for different age groups.

Overall, there has been a slow decline in formal and informal volunteerism as societal pressures increase and responsibilities change. As Baby Boomers transition from being active older adults to frail older adults, middle-aged adults are increasingly going to have to care for both their children and aging parents.

Visible minorities often make up a very small portion of the rural population. In 2015, a little more than five percent of newcomers to Canada settled outside of the five major urban centers. The proportion of new Ontario immigrants settling in non-metro Ontario is even lower. Moreover, retention of newcomers to rural areas is a concern and those who do leave rural communities for urban centres suggest they found it difficult to develop a sense of belonging in smaller communities. The report *Newcomer Engagement: Building Social Capital in Rural Communities* from the Rural Ontario Institute provides examples of rural regions integrating newcomers and volunteerism is often central to that positive experience.

First Nations communities are among the fastest growing rural communities. Activities that would be considered volunteering in southern rural communities are not necessarily looked at the same way in First Nations communities. Rather, it is viewed as a part of being in a community and taking care of one another. It is a mindset where community members have a place to belong and a tangible role to play in their community.

Impact of Volunteering on Rural Communities

Volunteerism is a driving force and heartbeat of rural communities. Many services that are available in rural communities continue to exist because of the generous investment of volunteers.

The quality of life in rural communities is better because of volunteers. It is primarily through the efforts of volunteers that community service providers and churches are able to run programs and serve those in need around them. A recent report by the Social Research and Planning Council called *The Heart of Community: A Report on Volunteerism in Perth and Huron Counties* found that 84 percent of local non-profit organizations surveyed said they simply would not exist without the volunteers that help to offer the services.

Volunteerism is more than just doing a task. It supports life as community members' journey through the various stages of life and is a social and emotional engagement with community. Lack of public transportation and large geographic areas in rural communities limits active transportation possibilities (e.g., walking, cycling) and creates a dependency on owning a personal vehicle for transportation and increased feelings of loneliness and isolation. A positive impact of volunteerism is that it can reduce social isolation for both the volunteer and recipient of service.

Volunteerism promotes philanthropy and community engagement, and results in tangible benefit to the community. The personal investment of the volunteer creates a sense of ownership and responsibility while building a sense of belonging. Comradery from teamwork influences community morale and is vital in fostering a sense of community spirit and pride. This community-building element can be lost when planning and implementation activities shift in a non-profit organization from a volunteerism base to a staff responsibility.

The close-knit nature of rural communities makes it easier for community members to know when a neighbour is experiencing difficulties and how they might help them. Working together and caring for the needs of others helps people feel connected and provides the opportunity to develop meaningful relationships. By the same token, in a rural community where "everyone knows your business" there is a flip side where the lack of anonymity can inhibit people from seeking help formally for fear of stigma.

Integrating into a close-knit rural community can be challenging for newcomers. Community members may be resistant to changing the tight social network they have relied on in the past and may treat the newcomer with suspicion. Volunteering is a positive way for a newcomer to integrate into a community. By giving of their time, newcomers are demonstrating a care for their new community while they learn the unique culture and values. Additionally, it offers newcomers an opportunity to develop social networks of their own. By establishing even as few as two or three relationships with well-networked people in a community, newcomers may very easily find themselves linked with many more.

The social capital (the network of relationships among people who live in a particular society that enables it to function more effectively) that volunteerism builds is significant. Although there may be a predominant focus on one or two organizations, about half of rural volunteers volunteer in multiple organizations. The resulting cross-pollination of people, resources, ideas and opportunities creates a stronger, more resilient community.

For younger generations, volunteering can offer access to a community's network of decision makers, such as local government officials, police or fire chiefs and community leaders. This kind of exposure provides insight into local opportunities, mentorship and expanded life experience. Leadership opportunities offered by local groups and organizations provide valuable experience as youth prepare for the workplace.

Utilizing volunteers may not always be the most efficient way to get a job done because of the ongoing need to train and manage volunteers, but it builds capacity and allows local clubs and organizations to continue serving those around them. Operationally, there may be a wider scope of responsibilities available to rural volunteers who may need to carry more of the operational load if smaller rural non-profits have less staff to carry out day to day activities.

Monitoring the need for volunteers can help to identify emerging need and gaps in service availability. With limited resources, rural organizations and volunteers need to collaborate and build strategic alliances in order to produce similar outcomes to those in more urban settings. These alliances help to keep the doors of opportunity and collaboration open and operating effectively. This intersection of social networks creates opportunity for new initiatives to begin, as relationships develop outside of the initial volunteering experience. For example, two people who initially meet as volunteering members of a non-profit Board may discover a common interest in environmental issues and co-launch an environmental community initiative.

Volunteers can be leaders in advocating and mobilizing community change as they are not bound by the same bureaucracies and protocols which may hinder professionals. Volunteers can create awareness with energy and passion, act independently without organizational restrictions and liabilities, and are often able to speak more boldly. They are independent sources of energy that can mobilize community change.

The impact of volunteerism is not easily quantified, but there is value in making the attempt. Craig Alexander and Sonya Gulait, analysts at TD Bank, calculated the impact of volunteering in Canada based on the following formula.

In 2010, more than 13.3 million people completed volunteer work (which totaled 2.1 billion hours, which is the equivalent to 1.1 million full time jobs)
x average hourly wage in 2012 (\$24/hr)
= roughly \$50 billion dollars annual economic impact.

Using simple estimation methodology where Canada's rural population was approximately 30 percent of the Canadian population in 2011 and Ontario's rural population of 2.5 million people was 25 percent of the total Canadian rural population of 10 million or so, then the value of Ontario's rural volunteerism could be placed in the ballpark of \$3.75 billion. Although this estimate is a starting point in understanding the true impact of volunteerism, much is missed as the benefit of volunteerism goes beyond time and money. After extensive research on calculating the value of volunteering, Volunteer Canada issued the following statement to summarize their views.

Volunteer Canada recognizes the need to demonstrate the value and impact of volunteering through a clear measurement of volunteer time and volunteer programs and that in doing so, valuing volunteerism will take many forms.

Determining the impact of the contribution of volunteerism is complex and multifaceted, as there are benefits to people served, organizations, the community, and to the volunteer themselves. Volunteer Canada believes that any measurement on the value of volunteer involvement must consider the resources needed to support volunteering and the social and economic development volunteering generates, integrating qualitative and quantitative measurements. Both aspects of measurement must be considered equally valid and compelling and each measurement presented in isolation of the other presents an incomplete picture of the true value of the contribution of volunteers (Volunteer Canada, 2010).

Current and Emerging Rural Volunteerism Trends

Demographic characteristics of volunteers

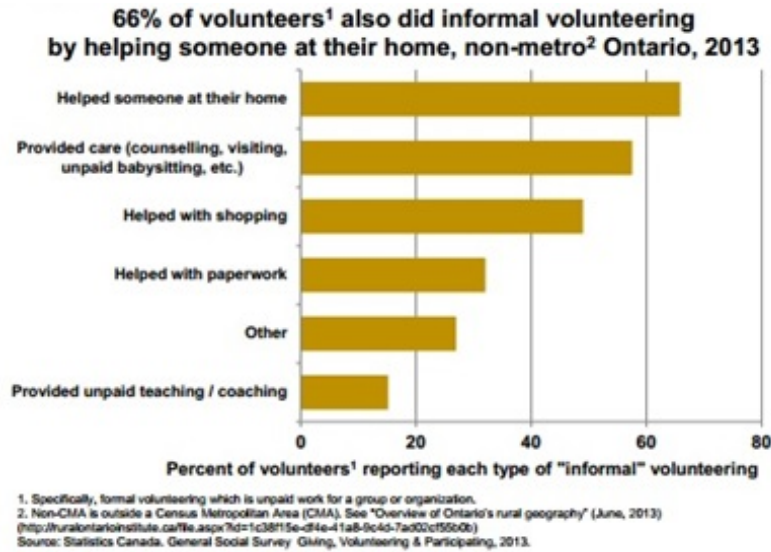
Volunteerism plays a key role in creating an engaged and sustainable civil and social services sector in rural communities. However, there are many different perceptions about the current state of volunteerism. Some feel that volunteerism as a whole is decreasing, while others feel that volunteerism is not suffering and that it is as much a part of communities as it always has been — although the expression of it is changing to be more lifestyle oriented. Still others believe that many volunteer opportunities are being professionalized, and the need and role of volunteers is changing. Which of these perceptions are an accurate reflection of volunteerism in communities and the trends that may be emerging?

In order to understand how volunteerism is contributing to the well-being of rural communities, it is helpful to identify whom in rural communities are the ones volunteering and how those trends may be changing. Analysis of data from the General Social Survey shows that women had a slightly higher tendency to volunteer than men did, a trend that noted a minor increase in 2013, and that compared with the number of Canadians who volunteer formally, twice as many people (83%) volunteered informally by providing direct help to family, friends and neighbours.

Those with higher levels of educational attainment volunteer more. In 2013, for example, over 60 percent of rural adults with a university degree reported doing volunteer work, as compared with about 37 percent of those with high school graduation. (An extensive set of charts and tables on rural volunteering [from which the chart below is drawn] is available from the Rural Ontario Institute, Focus on Rural Ontario, 2015.)

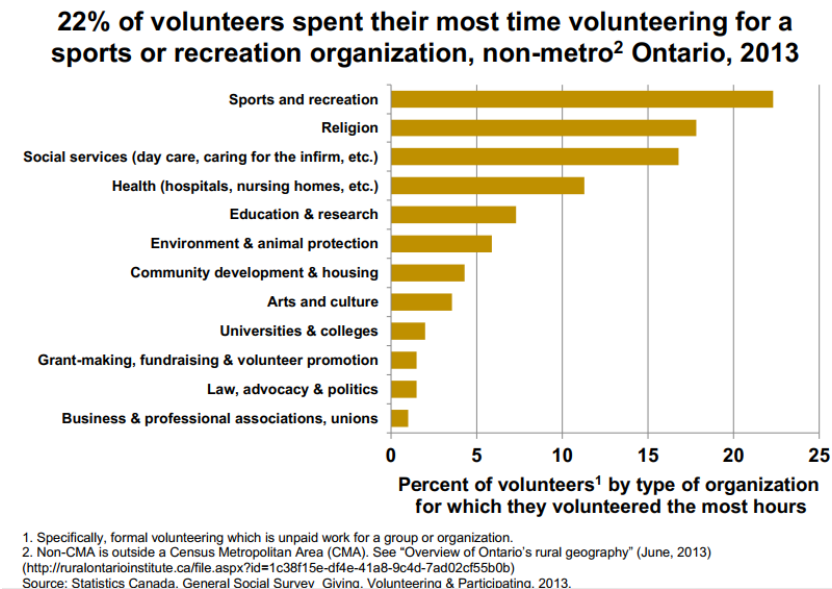
Income also had an impact on volunteerism rates; Statistics Canada reported that 58 percent of people with household incomes of \$120,000 or more volunteered, as compared to 33 percent of those with incomes under \$20,000. However, in general, people volunteering in the lower income group gave a higher average number of hours than those in the higher income group.

Chart 1



The need for volunteers, the type of volunteering opportunities available, and what volunteers are looking to do may not always line up. In rural Ontario, the top five types of organizations people gave the most time to were: sports and recreation; religion; social services; health; and education and research. This varies from urban volunteers where sports, social services, and education preceded religion and health.

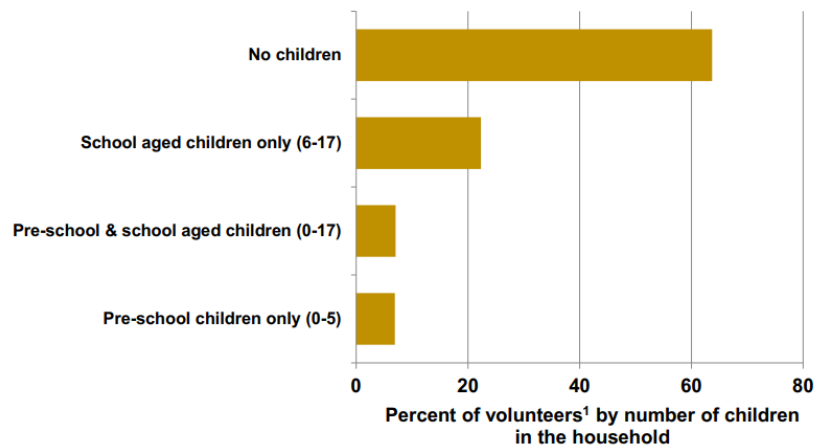
Chart 2



Canada-wide data suggest having children at home is associated with an increased likelihood of volunteering. It was reported that 56 percent to 59 percent of parents with school-age children at home were volunteers, compared with 41 percent of people without any children at home.

Chart 3

64% of volunteers have no children in their household, non-metro² Ontario, 2013



1. Specifically, formal volunteering which is unpaid work for a group or organization.
2. Non-CMA is outside a Census Metropolitan Area (CMA). See "Overview of Ontario's rural geography" (June, 2013) (<http://ruralontarioinstitute.ca/file.aspx?id=1c38f15e-df4e-41a8-9c4d-7ad02cf55b0b>)
Source: Statistics Canada. General Social Survey Givinq. Volunteering & Participating, 2013.

By contrast, rural Ontario statistics suggest 64 percent of volunteers have no children in the household. For parents of children participating in sports and recreation activities, there is an expectation that they will contribute some of their time to reduce costs. However, while some parents may be willing to help out, the above data may explain why some minor sporting associations report an increasing challenge in finding enough core volunteers to meet the organization's volunteer coaching and administration needs.

A trend that is often overlooked is the decline in volunteer capacity of rural faith organizations as the population ages and participation in faith organizations diminishes. Being a member of a faith organization, and attending religious services, contributes positively to an individual's likelihood of volunteering. In the article entitled *Volunteering in Canada*, Statistics Canada stated that "almost two-thirds of Canadians aged 15 and over who attended religious services at least once a week (65%) did volunteer work, compared with less than one-half (44%) of people who were not frequent attendees (this includes people who did not attend at all)." While the propensity of religious attendees to volunteer might be higher than those not participating in faith organizations, fully 70 percent of rural volunteers reported in 2013 that they did not attend services weekly.

Today, the steady decrease in regular participation in religious service is accompanied by a shrinking volunteer pool among congregants. The rate of churches closing is increasing, some not because of a lack of money, but due to a lack of volunteers to do the work. It is becoming common place for clergy to now serve multiple congregations in rural communities. The cascading effect of this emerging trend is that the remaining congregants are having to step up to do the work of the internal church functioning, which further results in less available time for serving the community around them.

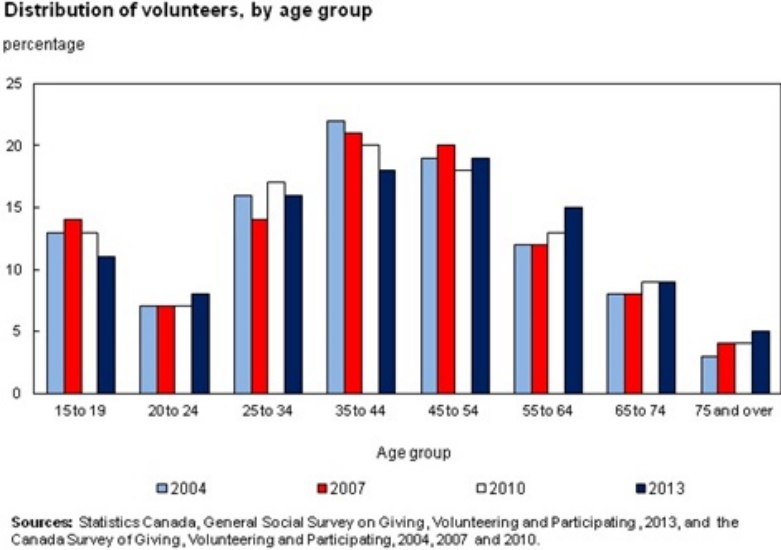
Aging volunteers, small number doing majority of work

In rural Ontario, 35–54 year olds are slightly more likely to volunteer than either 20–24 year olds or those 55+. This difference is seen across Canada and across rural/urban jurisdictions. Seniors (65+) had lower participation which may be partly due to poor health; however, seniors that did volunteer gave almost double the hours of younger volunteers.

In looking at the changes in the distribution by age over the four surveys that were done in Canada between 2004 and 2013, the most recent results show that the distribution is shifting towards higher proportions of older volunteers. In rural communities that have a higher than average senior population, this may ultimately lead to more volunteer hours available for a time. Lack of time is reported as one of

the biggest reasons that the working-age population does not volunteer. With an increase in the number of two full-time working adults in a home, extra-curricular activities, and faster social pace, families are looking for volunteering opportunities that fit with their time restrictions, which in turn is creating an increased reliance on older populations for volunteering needs.

Chart 4



The activities older adults volunteer for also differ from younger generations. The General Social Survey found that older adults (55+) were more likely to provide health care or support, such as companionship (20 percent vs 15 percent for volunteers aged 35–54), and were less likely to teach, mentor, coach or officiate than younger adults. With the age of volunteers increasing, there may be an increasing shortage of volunteers willing to teach or coach.

Of those that do volunteer, a small number of people do the majority of work. Fifty-three percent of volunteer hours given in 2010 were given by only 10 percent of volunteers, these hours amount to roughly the equivalent of 10 or more weeks in a full-time job (Statistics Canada, 2013). Volunteering shortages may emerge if younger generations are not able to replace active adult seniors as they become frail seniors and are no longer able to contribute which may lead to major gaps in service.

Changing society and competing responsibilities

Although the number of people participating in volunteer activities has increased, the number of volunteer hours donated remains the same — meaning that they are contributing less time. Society as a whole is becoming increasingly busy and the pressures for time are mounting. Involvement in private entertainment activities, such as home movies rather than community social events, is also impacting volunteerism participation rates.

Historically, volunteerism has been viewed as an unskilled activity driven by a commitment to community rather than personal gain, but this mindset is shifting. It was not uncommon for someone to be a long-standing and committed volunteer to an organization, regardless of what the organization’s weekly need was. Today, people are less interested in long-term volunteering commitments; rather, they are looking for short-term, specific tasks that will fit with their schedules. This requires that organizations rethink their volunteer opportunities and retention efforts. As well, volunteer culture is moving to a focus on developing agency among the disadvantaged, with volunteers on the boards of non-profit and local organizations increasingly becoming advocates for quality support and dignity for all.

Baby Boomers have a different way of thinking about volunteerism than Millennials do. Many Baby Boomers want their volunteering experiences to have meaning; they do not necessarily see it as a skilled

activity but rather a way of helping others. The potentially hidden resource of professional skills found in retired active adults is something that could greatly benefit rural organizations. Identifying the skills and mindsets needed for particular sectors that go beyond unskilled experiences, or those that could easily be learned, could increase available opportunities to volunteer.

Younger generations more readily view volunteering as an opportunity for personal growth and skill development. In order to best engage the growing number of seniors and millennial generations together, it is important for non-profit organizations to provide types of experiences that respond across generations. Some of these mindset shifts may be emerging a little more slowly in rural communities to the extent that patterns of behavior may be more stable or that non-profits have less capacity to more readily adapt to societal shifts.

In the event of a death in the community, it was commonplace for the local women's church group to come together to help prepare for the funeral reception. Increasingly, however, there are fewer people available to provide this kind of support. Service clubs are witnessing a similar decline in volunteer resources. Throughout the 1940s to 1980s, rural service clubs were responsible for significant infrastructure development. Today, rural communities are not seeing the same level of development through services clubs. To accommodate a busier culture and changing perceptions, service clubs like the Rotary Club are re-examining membership requirements so that they are more focused on engagement than on regular attendance.

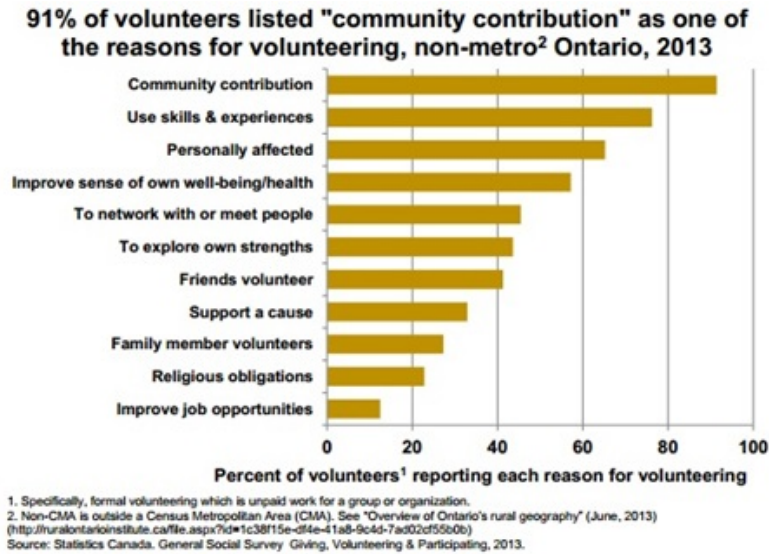
In his book *Bowling Alone: The Collapse and Revival of American Community*, Robert Putnam investigated whether declining, traditional associations were just merely being replaced by new ones. He found that many new organizations were forming that had a focus on issues of significant political importance, such as the environment or women's issues. Membership is high, but the nature of participation in these new associations is very different:

For the vast majority of their members, the only act of membership is consistently writing a check for dues or perhaps occasionally reading a newsletter. Few attend a meeting, and most are unlikely ever (knowingly) to encounter any other members. Their ties, in short, are to common symbols, common leaders, and perhaps common ideals, but not to one another (Putnam).

As society shifts to privatize recreation, outdoor recreational habits are also shifting. In northern Ontario, rural communities are seeing a decline in traditional outdoor organizations, as well as fewer trail guides and outdoor volunteers. This decline is leading to a diminishing volunteer base to maintain what has been developed. For example, in 2015 the entire Ignace Otters Snowmobile Club resigned, some of the volunteers had put in 22 years of volunteer service and needed others to step in. When a volunteer recruitment meeting was held, no one showed up. The Federation of Ontario Cottagers Associations has developed a focus on sharing ideas for engaging youth in their member organizations for similar reasons.

The good news is that although society is changing, the motivation for volunteering is still primarily altruistic with 91 percent of people volunteering to make a community contribution.

Chart 5



The popularity of an issue can also play a role in how easily volunteers can be recruited. Tragically, a few months before the opening of a men’s shelter in Goderich, Ontario, a homeless man drowned invoking the sympathies of local community members that saw volunteer numbers for the shelter swell by up to 30 people willing to offer their time to help.

According to data from Statistics Canada, almost half of the people currently not volunteering said it was because no one had asked them to. The potential for bridging this gap between those not volunteering because they had not been asked and those needing volunteers is significant.

In 2010, 14 percent of volunteers had sought volunteering opportunities online, up from 10 percent in 2007 and eight percent in 2004. This trend continues as technology presents new and innovative ways to connect with people.

A recent report released by the Government of Ontario on Community Hubs found that, due to declining populations and transportation challenges, focus group participants recommended that it would be helpful to explore virtual resources as opposed to traditional bricks and mortar building services.

Increasingly, the internet is facilitating greater awareness of issues as they emerge. Currently, virtual volunteer centers are emerging as a means to promote volunteer opportunities and find volunteer matches. Not surprisingly, urban online volunteer portals experience higher volumes of traffic; however, as virtual volunteer centers become more established as reliable community resources, the volume of traffic also increases. This is an approach that is showing great promise.

Volunteer Canada is currently working with Volunteer Attract to create a pan-national data hub for volunteer centres across Canada. Data is being collected through these online centres from both rural and urban settings to determine emerging trends. This information will be available to compare nationally, provincially and by region to understand volunteerism differences and similarities. Additionally, mapping capabilities available on these online volunteer portals can identify people willing to volunteer in other communities.

Additional initiatives in rural volunteering are being studied by Capacity Canada such as mapping available community resources online. Community capacity building refers to the identification, strengthening and linking of a community’s tangible resources, such as local service groups, and intangible resources like community spirit.

Geographic challenges of a region

A major challenge for volunteerism in rural communities is the vast geographic area. The cost and availability of transportation can hinder recruitment and retention of volunteers. The continued increase in transportation costs will at some point outweigh the intrinsic value of helping out.

Adjacent rural communities often have an identity that includes competition as much as cohesion with neighbouring communities — long-standing rivalries that are reflected in competition between sports teams for example. Municipal amalgamations often had to address such deep-seated attachments people had to their particular place even as their governance was shifting to include other communities. With this internalized community identity, it may be difficult for people to accept the idea of non-profits and volunteer networks operating inter-community collaboration. Raising money for local hospital equipment, for example, can run into these concerns when regional governance of health services seems distant. This creates a localized community approach that can make it difficult for people to come outside of their immediate community to lend a hand. It is hard to build a collective identity outside of immediate community circles when its members are not happy with inter-community collaborative efforts to achieve something greater. The long-term outcome of communities operating as silos is a fracturing of community efforts and services. Yet, there has been success in this area as many multi-county United Ways or Community Foundations, which cover large areas, have found ways to counteract such challenges.

Increasing liability standards and limited capacity

Screening

With the increase in insurance liability requirements comes an increase in volunteer screening and paperwork. Many small rural non-profit organizations simply do not have dedicated staff or capacity to properly support volunteers effectively and respond to increasing liability requirements.

In order for someone to feel comfortable offering their time and service there needs to be a basic level of trust in an organization. The increasing liability requirements for such things as police screening can at times cause volunteers to feel criminalized and can work against the volunteer's sense of trust. The police screening process can be particularly offensive to people from different cultural backgrounds. An increased awareness that police screening is not solely conducted for the benefit of an organization and its clients, but also for the volunteer, may improve organizational trust.

Currently, there are three levels of police checks available but there is a lack of consistent police screening legislation across Canada. These include a police criminal record check, a police information check (includes any outstanding charges or police contact) and a police vulnerable sector check (which includes pardoned offences and non-criminal violent behaviour that may put others at risk).

There needs to be consideration regarding whether the level of screening being required is comparable to the level of risk involved through the volunteering activity. For example, while it is increasingly expected that anyone working with someone from a vulnerable population — such as children or seniors — would have a vulnerable sector police check done, someone that is participating in a park cleaning bee may not need to be screened as thoroughly.

The cost, as well as time and effort required to obtain a police check can be a barrier to volunteering. Screening that is inconvenient or takes significant time to accomplish can result in disengaged volunteers that do not complete the screening process.

Evaluation

There is an increasing need for organizations to demonstrate to funders what their program outcomes and overall community impact is for the funding they have received.

These increasing measurement and evaluation requirements create additional strain on rural staff who may already be juggling many hats at once, leaving less time for volunteer management. Although measurement and evaluation of services can be invaluable in understanding effectiveness of operations and identify potential challenges and strategies, it may also have the unfortunate effect of changing staff's perspective on volunteers and minimizing the value of their contribution. Quantifying the social capital developed or individual intrinsic impact of volunteering is difficult to capture and may have the potential of boiling down the value of volunteers into units of service. The need to have positive numbers to report to funders may also contribute to hoarding volunteers in order to achieve favorable numeric outcomes.

Government changes

Changing government policies can also have a significant impact on the state of volunteerism in rural communities. Government resources are often more focused on urban centers and without volunteerism there would not be the same availability of services in rural communities. As larger government systems download responsibilities that may be manageable in larger urban centers, similar tasks become unreasonable to accomplish for smaller, rural communities. There simply may not be enough capacity within the social organizations that exist to make it happen.

At the local level, there are also changes in how local government operates. Increasingly, local governments are maintaining community infrastructure rather than the service club volunteers who may have helped build it in the first place. This governmental acceptance of responsibility also leads to increased liability requirements, bureaucracy, planning, policy and regulations to implement and uphold. With this trend toward professionalizing what was once done by volunteers comes the potential of lost community ownership as volunteers no longer care for local infrastructure.

Finally, as government systems look for ways to balance the budget and trim expenses, there are an increasing number of rural school closures. School closures can shift a sense of community as children are no longer going to school locally but are being bused to neighbouring communities. This community displacement may result in youth who have a decreased sense of community belonging that may lead to an increased out-migration and sense of local community responsibility.

Future Considerations

Service needs

With the decline in such community supports and volunteer pools as religious organizations and service clubs, the burden of community care will increasingly need to fall on rural service providers. Rural service providers are generally small operations with limited resources and capacity, many of which are already indicating a deficit of volunteers relative to need. This increasing dependence on volunteers to assume roles formerly filled by service providers will result in a reduction of services. Of those that do volunteer, many are older adults and as the population continues to age there will be a volunteerism crisis should younger generations not be willing to take over.

Community engagement

Interestingly, some rural communities — such as Perth and Huron Counties in southwestern Ontario — are finding that there are not enough employees to fill the number of vacancies available. An effective strategy to combat rural out-migration patterns and the need for skilled work is the recruitment of newcomers to rural communities. As previously mentioned, volunteerism is a great way for newcomers to become acquainted with the specific values and networks of a given community; however, it will be important for close-knit rural communities to demonstrate a willingness to embrace newcomers and the possibility of change in their communities.

Additionally, with an increasing shortage of available volunteers to provide ongoing service delivery, a new sense of inter-agency collaboration and cooperation will need to emerge. Eliminating duplication and

streamlining services will enable rural communities to maximize existing resources and capacity. This will require a true community spirit as agency and sector silos may need to be examined and dismantled for maximum effectiveness and service delivery.

The community as a whole will benefit from an attitude of generosity with their most valuable resource. Turf disputes between service providers may limit community capacity if volunteers are being hoarded rather than organizations being willing to share. Identifying that volunteering is not a means to an end, but rather is about helping to serve the greater good for a community is important. Everyone wins when there is a dedicated core of volunteers and there is a willingness to steer volunteers in the right direction, even if that means they no longer volunteer for the original organization.

Shift in society

Increasingly, the motive for volunteering is shifting to a more self-benefit approach, which is a trend that will most certainly continue, as will the need for incentives. For some organizations this may not be as much of an issue as it is for smaller, rural organizations with very limited resources and benefits. Some communities are seeing volunteerism benefits from running Community Currency programs.

Community Currency is complimentary currency (voucher or digital credit) that is used in a set geographical area to help encourage local civic engagement and development. These time credits encourage people to actively engage in their community while also developing local business by requiring that the vouchers or credits be used locally.

Community Currencies in Action (CCIA) a project of the New Economy Foundation stated in their report *Money with a Purpose: Community currencies achieving social, environmental and economic impact* that a key finding of those using community currency was:

Building motivation of volunteers who give time more regularly: feedback from organisations that use Spice Time Credits reported that their volunteers feel more valued and stay longer with the organisation. Over 50% of time credit users are volunteering in their communities for the first time and 80% state they are likely to continue giving their time in the future.

Tax credits for volunteer contributions have received some legislative deliberation. In 2008, Bill C-219 introduced the policy of amending the Income Tax Act to allow deductions for volunteer emergency service. In some jurisdictions, tax deductions for out-of-pocket expenses incurred while volunteering has been allowed, however there is currently no allowable deduction for volunteer time in Canada. Allowing a tax credit, or deduction, for volunteering could be of considerable benefit to those who may be on a fixed income (e.g., seniors).

Resources

One of the biggest barriers to rural volunteerism is creating awareness of the need for volunteers. The reality of limited capacity and resources that rural service providers must consistently work with creates a true reliance on volunteers. With technology continuing to develop and connect communities, it will become increasingly important to utilize the internet to create awareness of opportunities and to tap resources for rural volunteer recruitment, training and volunteer management professional development.

Standardization of policy

Standardizing policies and practices can serve to increase capacity by freeing up time spent on administrative tasks and re-allocating that time to active volunteer management and service delivery. Volunteer Canada has developed some excellent volunteerism codes and policy resources that could be adopted. Availability of low-cost toolkits and ongoing training would greatly increase capacity in rural communities. However, one challenge in over-standardizing is that informal volunteerism may be impacted, which could lead to a decline in community participation, sense of belonging and ownership.

Government

The federal and provincial governments often consider ways to download service delivery responsibilities onto local municipal governments. There is a very real need for a rural lens to be applied to consider rural context and capacity issues in these situations and assess, for example:

- How will mandated objectives be accomplished in rural communities with less manpower and per capita funding?
- What additional resources and implementation tools can rural communities utilize that will reduce the workload that is falling onto local volunteers?

Consolidated Police Screening Database

It would be beneficial for the government to consider investing in activities that would benefit everyone, such as legislation that is more consistent and the availability of a nation-wide consolidated volunteering Police Screening database. Such a database could be made available through an online portal that would reduce the need and inconvenience of volunteers making a costly trip to the police station. It would allow any organization who has written consent from the individual to access their profile and reduce the need for them to do multiple police screens should they want to volunteer in more than one location. Accuracy would also be enhanced as the record would be up-to-date and contain nation-wide information.

Evaluation

Finally, the trend toward measurement and operational evaluation will help organizations and funders make choices and service delivery decisions that are more informed. Evaluation toolkits and training workshops will need to be available to help rural organizations increase their capacity to facilitate such evaluation and make it a standard operational practice. The development of standardized volunteering metrics with a rural lens that could be adopted by rural communities would greatly enhance this endeavor. The Ontario Nonprofit Network has been working on a number of resources and infographics on evaluation in the sector and this provides a good platform for such activities, see: <http://theonnc.ca/our-work/our-structures/evaluation/>.

Conclusion

Volunteerism is a vital component in the continuation of a healthy, vibrant rural way of life. With aging populations and an increased dependence on older adult volunteers, rural communities may soon discover that how they serve the needs of community members may no longer be sustainable in the future.

Taking advantage of the increased availability of online tools to amplify community resources and assist in the recruitment and advertisement of volunteer opportunities will help to address some of the current barriers to volunteerism.

As the pace of life increases and societies' mindset continues to shift towards being internally focused, it will be increasingly important to match volunteers with tasks of interest — rather than just what is needed by the organization or unwanted by staff. Developing incentives and rewards such as tax breaks or community currency may help to increase the attractiveness of volunteering. Of equal importance is the need to find creative ways to promote and encourage volunteer participation as an altruistic contribution to community.

Federal and provincial government systems can help to alleviate increasing pressure on rural organizations by ensuring that a rural lens has been applied to any initiatives that are being downloaded to municipal governments. Without such considerations, it is foreseeable that rural community systems will reach a point of maximum capacity that, if not attended to, will result in volunteer burnout, service provider closures and/or increasing mental health challenges. Investment by senior levels of government in rural transportation solutions and mobility would reduce the geographic barriers to volunteering. Additionally,

developing a system for a more accessible and nationally consolidated approach to police screening will increase efficiency and safety standards.

Another critical enhancement will be to further develop strategies that will increase collaboration in service delivery efforts, while providing additional resources and support to communities as they continue to navigate the changing landscape of volunteerism to ensure continued community care.

Volunteerism remains the backbone of service delivery in rural communities and is the true heart of community. Without it, the rural way of life as we now know it may cease to exist. Addressing some of the challenges that exist today will have a significant impact on rural communities of tomorrow.

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NORTHERN PERSPECTIVES

Rural Volunteerism: How well is the Heart of Our Community Doing?

Charles Cirtwill & Emma Helfand-Green⁵

Like rural communities in Southern Ontario, volunteerism has long been important in communities in the province’s northern regions. The most recently available data on volunteering, from the 2011 Statistics Canada General Social Survey, shows that there are in fact slightly higher rates of volunteerism for all age categories in northeastern and northwestern Ontario as compared to the rest of Ontario (see Table 1). As described by Birtch, those between the ages of 15–64 volunteer slightly more than those over the age of 65, although data for seniors in northwestern Ontario was too unreliable to be published.

Table 1: Volunteering in the Past 12 Months, by age group (percent of total in age group) (Source: Statistics Canada, General Social Survey, 2010)

Geography	Volunteering in the past 12 months	15-64 years	65 years and over	Total, 15 years and over
Northeastern Ontario	Yes	45.9	43.7	45.4
	No	52.2	56.3	53.1
Northwestern Ontario	Yes	45.4	*	46.3
	No	53.6	*	52.8
Ontario	Yes	41.3	35	40.3
	No	57.5	63.7	58.5

* Too unreliable to publish.

The demographic shifts highlighted by Birtch are already having significant impacts in the northern regions, which are experiencing both a declining and aging population. Informal feedback that NPI has received from all regions in Ontario’s north indicate this is already leading to challenges recruiting volunteers, while at the same time, increasing the demand for many volunteer-provided services. As an example, in the northwestern Kenora District, the population of individuals aged 65+ is projected to increase from 12.61 percent of total population in 2013 to 23.16 percent in 2041, and in the northeastern Sudbury District, this age group is expected to increase from 19.44 percent to 36.82 percent (Cuddy & Moazzami, 2017a; Cuddy & Moazzami, 2017b). This trend is common within all 11 northern districts signifying a substantial demographic change occurring across Ontario’s north.⁶

At the same time, the growing Indigenous population in Ontario’s northern regions may represent a new source from which to draw volunteers as the existing pool shrinks. However, as Birtch highlights, volunteerism within First Nations communities is not typically seen as “volunteerism but rather as ‘helping out’” and it is a key aspect of Indigenous cultures (Native Women’s Association of Canada, 2015). This creates unique challenges in tracking volunteerism among this population and in encouraging more formal volunteerism, especially outside of First Nations communities and particularly as more Indigenous people move to larger centres. Simply put, this population is far more likely to just “help out”, without ever formally “signing up” or otherwise reporting their volunteer activity. This will likely result in the ongoing potential for underreporting of volunteer activity and a misconception about the level of participation of

⁵ The authors gratefully acknowledge the contributions to this piece made by James Barsby.

⁶ See Cuddy & Moazzami’s *Human Capital Report Series* for demographic information for all 11 Districts in Northern Ontario. Available at northernpolicy.ca

this population in the larger community.

Furthermore, as Birtch explains, the cost and availability of transportation options is a barrier to volunteerism in Ontario's northern regions. Lack of public transportation may discourage certain groups, especially younger and older volunteers, from making the effort to participate in volunteer opportunities. Relatedly, individuals in northern communities may already be engaged in significant travel and commutes to get to their primary employment. This could discourage additional participation in volunteerism as there is less time for individuals to engage in this type of activity.

A study conducted in a rural town in northern Ontario identified a few key barriers to volunteerism. Through interviews with community members (mostly seniors) and service providers, the following factors were identified as negatively impacting volunteerism in the community: a lack of volunteers; volunteer burnout; poor newcomer participation in volunteering; out-migration of individuals in the prime age categories for volunteering; and a transitory lifestyle which means that many community members are not willing or able to commit to volunteering as they spend significant time (weekends, summer or winter months) in other communities (Wiersma & Koster, 2013). The findings from this study are relevant to other rural communities — especially those with a large population of seniors — in Ontario's northern regions, although differences exist between communities.

Overall, there is a lack of specific data and research on volunteerism in Ontario's northern and rural communities. It is likely, however, that many of the challenges for rural communities remain the same across the province. The opportunities identified by Birtch for future considerations are important for communities and organizations to consider in order to ensure that volunteerism remains an active part of community life and that the services and programs provided by volunteers continue to exist.

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The Visitor Economy and Rural Cultural Amenities

Christopher Fullerton

Introduction

Rural communities throughout Ontario are losing or reshaping their traditional economic activities in agriculture, forestry and other primary industries, due to factors such as resource depletion, the shifting of extraction activities to other countries by their corporate owners and the replacement of human labour by machines. Still other rural places have witnessed the loss of secondary activities, such as manufacturing and food processing. For example, the Hershey Chocolate Factory in Smiths Falls, the Nestle facility in Chesterville, the Bick's Pickles Plant in Dunnville, and the Can-Gro Foods Cannery in Niagara-on-the-Lake (where products such as Del Monte Fruit Cocktail were processed) have all closed in the past decade and left widespread job losses in their wake. As people in these places seek to diversify their economies — or to reinvent their communities altogether — many are engaging in what is referred to as “place-based development”.

As Sean Markey has stated, “Place-based development, in contrast to conventional sectoral, programmatic or issue-defined perspectives, is a holistic and targeted intervention that seeks to reveal, utilize and enhance the unique natural, physical, and/or human capacity endowments present within a particular location for the development of the in-situ community and/or its biophysical environment” (Markey, 2010, page 2). By looking inward and identifying local strengths and amenities, place-based development enables communities to mobilize these assets and turn them into community and economic development opportunities. Throughout rural Ontario, one of the most common types of assets identified as having development potential are cultural amenities, many of which, in turn, are now being used to lure prospective visitors to the community. In fact, tourism development is now widely viewed as one of the most promising and effective tools for rural development across Ontario.

The purpose of this *Foresight Paper* is to discuss the long-term prospects for rural tourism development in Ontario, particularly that built on the harnessing of cultural amenities. However, it does so in a way that recommends rural communities organize their efforts with an eye to growing and strengthening the local “visitor economy” rather than just the local “tourism economy.” Such an approach can help stakeholders understand that there are many different types of visitors who can be drawn to a community and that the economic and social benefits of doing so can be numerous. This paper will also point to the various challenges that rural communities may face in such a development process, and will also provide an overview of the most critical components of an effective strategy for growing the local visitor economy.

What is the “Visitor Economy”?

The traditional conceptualization of tourism tends to define tourists as people who travel and stay outside their home community for at least 24 hours and typically for the purpose of a holiday, sight-seeing or recreation. However, the concept of the visitor economy has a much broader focus, as it encompasses all of the different motivations people may have for travelling to a particular destination and a more liberal view of how much time they spend there. For example, beyond the reasons listed above, people may visit a particular community or region to attend a festival or event, to visit friends and family, for work purposes or to attend a conference or convention, to receive an education, or even to access health services. It is also possible that the journey may involve more than one purpose (such as combining a vacation with a work trip), while the duration of these visits may also be highly variable. For instance, the 24-hour threshold commonly found in the definition of a tourist leaves out shorter journeys, such as when a visitor has just come for the day from a nearby community. Thus, by broadening the definition beyond common conceptualizations of tourism and tourists, rural stakeholders can identify far more in the way of visitor economy-related development opportunities.

The concept of the visitor economy also recognizes that visitor spending encompasses a broad range of direct and indirect expenditures stemming from a person travelling outside of their home environment.

This spending contributes to investment and supports jobs across a range of industry sectors, some more obvious than others. Most visibly, the visitor economy entails the production of goods and services aimed primarily at serving the needs and wants of visitors; this might include, for example, spending at attractions and for accommodations, as well as payments made to transport providers or tour companies. At the same time, visitors to a community typically spend money at businesses that also serve local residents, such as restaurants, bars, retail and grocery stores, gas stations and laundromats. Beyond these economic impacts, the money spent in ways outlined above have a subsequent trickle-down effect; that is, visitors bring new money into the local economy that is subsequently spent by local business owners and their workers, much of it locally as well. For example, money earned by local tourism businesses will make its way down the supply chain, while tourism workers' earnings are spent on housing, food, transportation and many other items. Thus, growing the visitor economy can lead to significant economic benefits, such as the growth of local businesses, job creation (across a broad range of occupations) and greater tax revenue for local and higher levels of government.

Researchers have also pointed out that a healthy visitor economy can help to maintain an attractive aesthetic and social environment in which people want to live and work. This has the potential to encourage visitors to make a more permanent move to the community at a later date. Also, attracting visitors can boost the viability of local businesses and services — such as retail stores, restaurants and pubs, as well as cultural, sports and leisure facilities — that might have otherwise faced closure due to trends such as population or economic decline. Other observers have noted that a strong visitor economy can strengthen people's sense of place and civic pride, and that it can improve residents' sense of well-being when they are able to participate in local culture and heritage activities. In summary, it might be said that the facilities, services and environments that visitors are looking for also serve to enrich the quality of life for local residents.

While the benefits of doing so are clearly numerous, further motivation for rural communities to develop a strong and vibrant visitor economy can be found in the growing numbers of potential visitors. A number of trends and issues over the past few decades have prompted people, particularly urban and suburban dwellers, to visit rural areas more frequently. This includes: increased leisure time; people's greater concerns for their health, physical, and mental well-being; a desire to find alternatives to more standardized mass tourism destinations; and what might be described as a desire to "escape" from the ills of urban and suburban life, such as noise, impersonality, crime, traffic congestion, a homogeneous built environment and a lack of daily contact with nature.

It has also been found that many people wanting to visit rural areas have high levels of education, demonstrate a growing interest in cultural heritage, and are especially looking for new activities and experiences. The characteristics of rural areas are often seen to provide much of what these people are looking for. In many cases they also possess a positive image of rural lifestyles, communities and landscapes that is referred to as the "rural idyll" — a sense of place that sees rural areas to be "orderly, harmonious, healthy, secure, peaceful" (Hopkins, 1999). As Little and Austin (1996) have written:

Rural life is associated with an uncomplicated, innocent, more genuine society in which traditional values persist and lives are more real. Pastimes, friendships, family relations and even employment are seen as somehow more honest and authentic, unencumbered with the false and insincere trappings of city life or with their associated dubious values.

Making the Most of the Visitor Economy: Resources to be Harnessed

The clear and growing demand for such experiences has led many rural communities to market themselves and their various cultural amenities to potential visitors, and this is certainly with good reason. As noted by the European Association for Information on Local Development:

In terms of culture, there are few rural regions which are under privileged. Full of history, traditions, forged by the work of generations of men and women, they usually possess a rich heritage or a strong cultural identity (AEIDL, 1994, cited in Roberts & Hall, 2001, p. 159).

The list of cultural amenities and events to be found in rural communities and valued by visitors is extensive. Among other things, it can include: heritage buildings, museums and monuments; historical sites, structures and landmarks, such as forts, battlefields, or archaeological and religious sites; old and active farms, mine sites, sawmills and other economic imprints on the natural landscape; traditional food and drink; craft products and artifacts; arts and culture festivals; and historical re-enactments. Richards (1996) has noted that "Heritage consumption, utilising as it does the accumulated real cultural capital of particular locations, effectively unlocks the value of past production stored in important buildings and key locations." Visiting these places and taking part in these events offer visitors a window into that area's history and heritage, its cultural customs, beliefs and traditions, and its residents' past and present ways-of-life. In turn, this provides the visitors with opportunities for everything from education and entertainment to relaxation and cultural enrichment. At the same time, visitors may also partake in activities extending beyond the cultural dimensions of rural community life, such as sporting activities like skiing and boating, or more passive activities, such as spending a day on the beach. This has the potential of extending their stay in the area, along with all of the economic benefits this brings.

Making the Most of the Visitor Economy: Prerequisites for Success

The many benefits that can stem from a prosperous visitor economy have led many rural communities to jump on this bandwagon. However, a growing volume of research has shown that attracting visitors is not without its challenges and can also bring about any number of negative economic, social and environmental consequences if the process of attracting and hosting these guests is not properly managed. In fact, many criticisms have been leveled at traditional tourism development and planning because it often unfolds without communities properly understanding what tourism is or how it can and should be managed. For example, Marcouiller (1997, p. 341) has lamented the "non-integrative" and "overly myopic" nature of most tourism planning in rural areas, especially its inevitable concentration on marketing and promotion. He further argues that the domination of economic growth concerns tend to influence the goals of tourism development and planning while often ignoring or glossing over other important issues or concerns.

To be sure, a vibrant visitor economy can bring many positive benefits to a community, but does have the potential for negative economic, social and environmental impacts if it is not managed properly. The range of possible negative impacts is quite broad. For instance, growing visitor numbers can lead to problems such as: overcrowding at the attractions and throughout the community; parking and traffic congestion; the budgetary burden of increased demand for municipal services, such as water, sewage, waste disposal, fire protection, and policing; the inflation of land and housing prices; air, water and noise pollution; and other environmental impacts, such as the erosion of pathways, interruption or destruction of wildlife habitats, and the construction of new developments where fragile ecosystems are in place. All of these, in turn, can also lead to conflict among different groups in the community and also between visitors and local residents.

Returning to Marcouiller's observation from above, many communities also engage in tourism development activities solely through the creation of marketing materials, such as the development of a website or the publication of glossy brochures and visitor's guides. They often do not consider the impact of the visitor economy on other local economic sectors or on the community more generally, do not include other stakeholders in their activities, and do not provide front-line personnel with formal training in tourism and hospitality. In effect, they do not *plan* the growth of their visitor economy, but instead tend to "wing it," despite the possible repercussions.

So, how then, can rural communities build their visitor economies effectively while also avoiding the problems identified above? As a starting point, while every rural community has at least some potential for tourism development, the successful achievement of this potential depends on a wide range of factors, including:

- the community's location and level of accessibility by different modes;
- the number and type of cultural amenities to be found in the community;
- the availability of supporting infrastructure in the community;
- the extent to which local stakeholders are actively engaged in managing the visitor economy;
- how well the community is prepared to prevent, or at least deal with, any negative consequences that may emerge;
- how well trained local workers are;
- how receptive local residents are to visitors; and
- the extent to which the community is marketed to prospective visitors, along with the themes employed in doing so.

All of these are important considerations that should go into an integrated and long-term planning process that involves the broad swath of community stakeholders. This can result in well-considered planning and development policies that protect the resources visitors are coming to see and use, an effective marketing strategy and a high level of community buy-in that will ensure visitors are both welcomed and well cared for. A more detailed discussion of these points is provided in the ensuing paragraphs.

Integrated Planning

Despite its growing importance within broader rural economies, growing tourism and other forms of visitation should not be considered a panacea to reverse economic and population decline. For one, the visitor economy may be a very seasonal one, at least initially, particularly if a community only has a limited range of attractions and these only operate for a portion of the year. Then there is also the problem that some related jobs are low-paying in nature. Added to this is the fact that activities associated with the visitor economy often take place on lands and in parts of the community where other economic activities are taking place at the same time, such as farming or logging, which can then result in land-use conflicts and other disputes between different user groups. In cases like these, trade-offs may sometimes have to be made and decisions of this sort may be highly contentious.

All of this points to the need for a long-term and integrated approach to planning for the local visitor economy. Ideally, this planning should result in the preparation and/or revision of several key documents that can then serve as a guide for future decisionmaking. First, local stakeholders should discuss the community's economic development climate and opportunities in a way that does not focus solely on tourism, but instead considers a broader range of development prospects for the public and private sectors to pursue. This should bring with it some constructive dialogue about potential conflicts between activities and how these might be avoided, and should also consider activities that the community considers to be "off limits" as development options — for example, due to their potential infringement on other activities or their probability of having consequences considered unfavourable by the community. A widely endorsed and community-based economic development plan or strategy would be the ideal outcome of such a process.

Once the community has decided on its economic development priorities, and on the visitor economy's place among these, a second step would be the creation of a master plan or strategy for expanding the visitor economy. As noted earlier in this paper, the variety of people and groups directly or indirectly connected to the visitor economy is very wide; it is important to include as many of these stakeholders as possible in this planning process. Convening participants through events such as community workshops and focus groups, or by conducting a community survey, can help to gather valuable input that enables stakeholders to share and address concerns related to the visitor economy and its future growth, to identify opportunities and gaps in the visitor economy, to develop short-, medium-, and long-term priorities, to identify a consistent brand or theme for the community to use in marketing, to identify training needs, and to identify entrepreneurial and business start-up opportunities that maximize direct and indirect local linkages — and thus, economic benefits for the community.

A third necessary step in this planning process is to review the community's land-use planning regulations, which are normally expressed in its official plan and zoning by-law. Here it is of vital importance that the

community considers how it wishes to regulate the physical development of the community as the visitor economy grows and how provincial planning policies may also factor into this process. This can provide a way of ensuring that land-use conflicts that might be created by a growing visitor economy are mitigated or avoided altogether, and can also help protect residents from the negative externalities that come with more visitors, such as parking and traffic congestion problems. Also, some tourism development has been hindered in the past by zoning by-laws that do not include tourism-related activities on the list of permitted uses under various land-use zoning designations, so it is crucial that these policies enable such development where it has been deemed acceptable. Conversely, because an official plan and zoning by-law are legally binding documents, while economic development plans or strategies are not, the former documents also provide another means of controlling unwanted development. Activities related to the visitor economy that may damage or degrade local assets or the local quality of life can also be regulated through their explicit prohibition in the policies of the official plan or by way of their omission from lists of allowable uses in the zoning by-law.

Stakeholder Collaboration

It has been noted that negative citizen attitudes toward tourism development have led to the industry being “underdeveloped, underfunded and undervalued” as a component of local economic development in many communities. This often stems from feelings that the local citizenry have a lack of say in major decisions that affect life in their communities. It is for this reason that there have been growing calls for a “community-based tourism” approach, which essentially involves a bottom-up approach to tourism planning and development that meaningfully incorporates local individuals in the planning process in the spirit of cooperation and collaboration. This, in turn, can ensure that the visitor economy is planned and managed in ways that reflect the shared aspirations and values of all their stakeholders. While it is highly unlikely that all stakeholders will agree completely on a preferred course of action, or even on the making of any individual decision, the objective of the community-based tourism approach is to achieve *consensus* among stakeholders, meaning that the decisions made represent actions that everyone can *at least live with*, if not fully support. Perhaps most importantly, this process has the benefit of generating greater community support and buy-in from local stakeholders, thus increasing the likeliness of their having positive interactions with visitors to the community.

The task of developing a truly bottom-up and multi-stakeholder approach can sometimes be easier said than done. For one, it entails the creation of partnerships and networking among groups that may not have historically had much reason to communicate with one another or who may otherwise see themselves as competitors (such as local restaurant operators or accommodation providers). Another potential barrier can be local politicians’ or some other traditionally dominant organization’s (e.g., the Chamber of Commerce or the local Destination Marketing Organization) resistance to sharing power. Even residents may hold diametrically opposing views regarding the development of the visitor economy; for example, long-time residents may resist such growth for fear of the community changing too much while newcomers may be pro-development. Finally, many rural visitor economies are made up primarily of small, family-run businesses where the owners lack the time to take part in the planning process, particularly during the peak visitor season(s). Despite these challenges, it is widely agreed that widespread community collaboration and cooperation are critical to a successful rural visitor economy. Those leading the various planning processes identified above must keep these constraints in mind and devise a variety of methods for these multiple interests to be represented.

The need for networking, partnerships and other forms of collaboration extends even further for those rural places that may have a limited number of cultural or other assets upon which to build their visitor economy. In cases such as these, the available resources may not have enough appeal on their own to draw visitors to the community. A logical solution here is to bundle several similar attractions, or compatible ones, together for marketing purposes through a multi-community or regional partnership. These bundles or clusters might involve a common theme and take the form of, for example, a scenic route, a wine route or an arts tour. A potential benefit here is that visitors will make the trek to the area in order to visit multiple attractions, whereas they would likely not have done so to visit only one or two, particularly if they are located in more peripheral rural settings that require a longer travel time to get there.

Landscape Management

Even where travelling through it has not served as their primary motivation for visiting, the physical setting in which the visitor economy is situated has been shown to play a vital role in shaping the visitor's experience of a rural place or region. This setting, comprised of both the natural landscape and the cultural landscape imprinted upon it, is referred to by some researchers as the "experience-scape" and is not always given adequate consideration in the planning and ongoing maintenance of visitor economies. Yet studies have shown that many elements of this experience-scape — including everything from farm fields, fences and barns to heritage buildings, bodies of water and even rural dwellers out and about living their day-to-day lives — make a direct contribution to the visitor's enjoyment of, and satisfaction with, a particular place. It has also been shown that this goes beyond the visual experience of rural landscapes and also includes the smells, sounds and tastes that come with being there, particularly for urban and suburban dwellers. A good example of this is provided in the context of wine tourism, whereby Barbara Carmichael's (2005) research in the Niagara wine region found that the rural landscape through which they travelled made up one of the most important parts of the wine tourist's experience. As Jeff Hopkins, from the University of Western Ontario, put it: "There is little in the countryside that cannot be obtained, experienced and consumed, at least to some degree, in nearby cities, be it antiquing, boutiqueing, dining, golfing, swimming or sunbathing." But, he goes on to point out, the experience of doing these things *in rural settings* is what makes them preferable to the more close-by urban alternatives. This also goes back to this paper's earlier reference to the "rural idyll", whereby travelling through rural landscapes has the psychological benefit of helping people to relax and escape from the tensions, noise and stress of daily urban and suburban life.

The importance of the rural landscape to the visitor's experience points once again to the need for effective planning controls to conserve rural built and natural environments. The popularity of Niagara-on-the-Lake and St. Jacobs as heritage shopping villages is further testament to this point. In cases such as these, the many heritage buildings in which the shops are located provide a backdrop reminiscent of the rural idyll. In Niagara-on-the-Lake, the physical development of its heritage tourist district is tightly controlled; however, research by Clare Mitchell and Kathryn Randall (2014) found that controls are fewer and weaker in St. Jacobs, thus leading to the demolition of older buildings and the construction of new ones that do not fit with the town's heritage theme. These points also show the depth of the rural visitor economy in terms of the linkages between businesses in these communities. Even groups like architects, developers and construction companies, as well as owners of businesses that sell the most mundane day-to-day things *in a rural setting*, are stakeholders within the visitor economy.

Marketing and Customer Service

Attracting tourists and satisfying their expectations are two other important components of the rural visitor economy. Accordingly, so, too, are marketing and customer service. However, as the number of rural communities trying to attract visitors grows, it has become much more difficult for these places to differentiate themselves from one another. As Killion (2001) has noted, rural areas need to build a visitor economy that can "attract visitors out of urban settings" and, at the same time, "steer them away from competing rural destinations" (p. 166). At least two ensuing problems have emerged. First, some places lack any related marketing experience and thus try to emulate what other communities before them have done and, second, many places are characterized by individual marketing efforts that lack a more cohesive community- or region-wide theme. For example, the Niagara region was cited in a provincial government report as a place where the existence of multiple destination marketing organizations resulted in a duplication of tourism promotion efforts and, subsequently, a lack of a clear "Niagara" brand beyond Niagara Falls (Ontario Tourism Competitiveness Study, 2009).

The marketing-related tasks for rural communities are numerous. Buck has argued that

tourism is an industry based on imagery: its overriding concern is to construct, through multiple representations of paradise, an imagery that entices the outsider to place him or herself into the defined space. (Buck 1993, p. 14)

Ultimately, rural communities (on their own or with regional partners) must engage in what are referred to as “place promotion” and “place positioning”. Place promotion is defined as “the conscious use of publicity and marketing to communicate selective images of specific geographical localities or areas to a target audience...” (Gold and Ward, 1994, p. 2), while place positioning takes this one step further by shaping this place image *in relation to competing places* (Short and Kim, 1993). By engaging in these processes, rural destinations can assemble a marketing image that sums up for potential visitors the essence of the area, in terms of its physical and cultural environments. Getting to this point requires a great deal of research if it is to be done well, and should include the participation of two groups: the various visitor economy stakeholders and the visitors themselves. This will enable *informed* marketing to be carried out by first determining how local residents wish for their community to be promoted and, secondly, by building an understanding of what has made the community or region an attractive place to visit (or not) from the perspective of the visitors. This information can then lead to a higher likelihood of community buy-in for the marketing theme(s), can identify the key selling features of the community, and may also lead to ideas for potential improvements to local attractions, infrastructure and services. As implied above, the marketing strategy that is decided upon must also be unique to those used in other competing places and should also provide accurate representations of the community or region.

Finally, an often overlooked component of a strong visitor economy is excellent customer service. This means having businesses with standards of presentation, service and customer care, clean and well-maintained facilities, and the availability of accurate information about local amenities and services. Appropriate training should also be given to workers who come in direct contact with visitors, perhaps in collaboration with a nearby community college or other educational partner.

Conclusion

This *Foresight Paper* has offered a perspective on the prospects for future growth of the visitor economy in Ontario’s rural communities and regions. While the culture-based visitor economy represents an excellent opportunity for economic development and diversification in many rural parts of the province, it should not be seen as a panacea for their development woes. Instead, the visitor economy must be carefully planned and managed in tandem with other economic activities and in ways that ensure its long-term viability, sustainability and acceptance by the community. This will require an integrated and community-based approach to planning, with a particular emphasis on preserving the “rural” landscape, along with well thought-out and effective marketing that provides potential visitors with an accurate impression of what to expect should they come.

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NORTHERN PERSPECTIVES

The Visitor Economy and Rural Cultural Amenities

Charles Cirtwill & Emma Helfand-Green⁷

Tourism has long been a key component of northern Ontario's economy. A report commissioned by FedNor labeled tourism a 'key economic driver' after finding that in 2007, visitors to the region spent \$1.4 billion, generated \$924 million in economic activity and supported 16,000 jobs (Industry Canada, 2009). Furthermore, in 2011, the Ministry of Northern Development and Mines Growth Plan for Northern Ontario listed tourism as one of 11 emerging and priority industries for the region. Even the soon-to-be-released *Northern Ontario Multimodal Transportation Strategy* has identified the importance of tourism to the region and cited that in 2012 there were over 9,000 tourism-related businesses in northern Ontario, which contributed more than \$930 million to the region's GDP (Ministry of Northern Development and Mines & Ministry of Transportation 2016).

All of the reports mentioned above use the traditional and more limited definition of 'tourism.' Fullerton's recommendation for rural communities to adopt a broader definition of the "visitor economy" is important as it may better allow communities to consider the wide range of "visitor economy-related opportunities" that exist in northern Ontario. In the north, for example, individuals may visit communities to access services such as health or education, for work purposes (especially in what is known as fly-in, fly-out communities) or for longer-term camping and cottaging excursions. As well, many visitors to northern Ontario communities may not fall into the traditional definition of tourism, as they do not pass the 24-hour visit threshold (for example, a family driving across the Trans-Canada highway and stopping in a community for a rest). Therefore, adopting the broader definition by Fullerton can allow communities to focus on a wider range of visitor-related situations and assess the more significant development opportunities that accompany this range of visitors.

Northern Ontario provides many unique amenities and opportunities that may be less common in southern rural areas, namely outdoor activities such as camping, fishing, hunting and boating that could help build the visitor economies. More specifically, the northern part of the province is home to a range of First Nations communities that are unique in their Indigenous cultural amenities. For example, the Great Spirit Circle Trail on Manitoulin Island is a collection of attractions and activities that attracts approximately 4,700 visitors per year (Indigenous Tourism Ontario, n.d) that was established through a partnership of eight First Nations who live on the island. This is an example of a successful "bundle" or "cluster" described by Fullerton.

In addition to the opportunities in Indigenous-related tourism, another potential area for growth in the northern Ontario's visitor industry is Franco-visitors. The close proximity to Quebec and Manitoba, with their francophone populations, is a boon for northern Ontario. Northern Ontario has historic ties with Franco-culture dating back to New France, with sites that reflect that heritage, such as Voyageur Provincial Park and the Centre franco-ontarien de folklore. The north also contains an expanding Franco-Ontarian community. The 2011 census found that 20.8 percent of northeastern Ontario and 1.2 percent of the northwest population was Francophone. The significance of the Francophone population is evident in Sudbury as a new Place des Art, a multi-use francophone community centre for arts, is nearing development. The northwest has multi-cultural sites such as Fort William Historic Park, which not only celebrate Francophone heritage, but also commemorate and celebrate the Métis people. Expanding opportunities for franco-visitors, who may be drawn to these culturally relevant amenities, as well as to bilingual services, may be of significant benefit for the district.

However, the geography of Ontario's north can make it harder to attract visitors, especially those from the

⁷The authors gratefully acknowledge the contributions to this piece made by James Barsby.

GTA. Northern Ontario covers over 800,000 square kilometres, which is larger than the size of France. Although airports do exist in the main urban centres, access to rural northern communities is more challenging. Many visitors have concerns related to driving in the north, due to the prevalence of wildlife collisions and the possibility of inclement weather situations (Ministry of Transportation, 2016). Furthermore, a lack of consistent and appropriate signage along northern Ontario's highways, and the absence of year-round roadside amenities act as a barrier to expanding the visitor economy (Cirtwill, 2016; Beals, 2016). Thus, improvement of transportation systems across northern Ontario, especially to rural communities outside of the major cities, is critical to the expansion of the visiting economy in the northern part of the province.

Overall, Fullerton discusses the importance of collaboration among all community members to embrace a "visitor economy." This is especially important at a regional level as visitors to the north may visit multiple communities as they travel along the major highways. Thus, regional clusters or bundles are a good opportunity for the region. Without an "integrated and community based" approach to planning, the buy-in necessary for success may be difficult to achieve. Many organizations do exist to promote and support the visitor economy in northern Ontario, but opportunities remain to harness the unique characteristics of the north including Indigenous and Franco-Ontarien cultural amenities, outdoor opportunities and natural beauty.

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