RURAL BROADBAND + QUANTUM LEAPS = NEW ECONOMIC OPPORTUNITIES

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Introduction

Since 2005, this study has been tracking the nature and context of the rural digital divide in southern Ontario. Rural southern Ontario is in the process of unprecedented change propelled by demographic shifts and a socio-economic balancing act between sub-urban expansion and rural development that involve a renegotiation within the rural landscape in terms of farm and non-farm households and land use. Broadband coverage in rural southern Ontario is increasing but is characterized by serious gaps in service.

Population and Age Shifts in Rural Southern Ontario

Ontario forecasts that its population will increase by 12 percent between 2006 and 2016 and 30 percent by 2031. Although the rural population in southern Ontario will increase, the number of small and medium sized farms will decrease in the rural landscape. Within rural communities, the age structure will also shift. The dependency ratio is an indicator of the economically active proportion of the total population. The higher dependency ratios (figure 1) which characterize many rural communities in Ontario reflect both their aging population and the out-migration of young people as a result of limited employment opportunities.

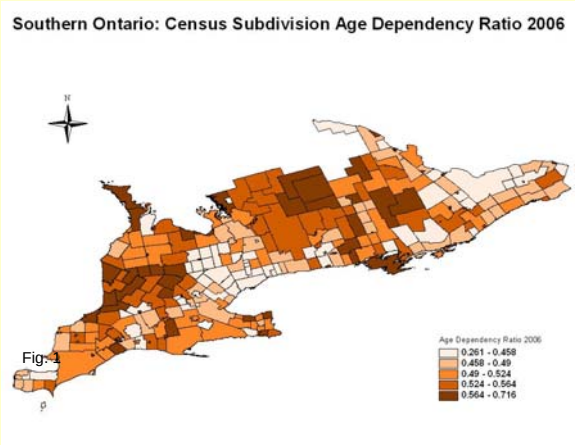


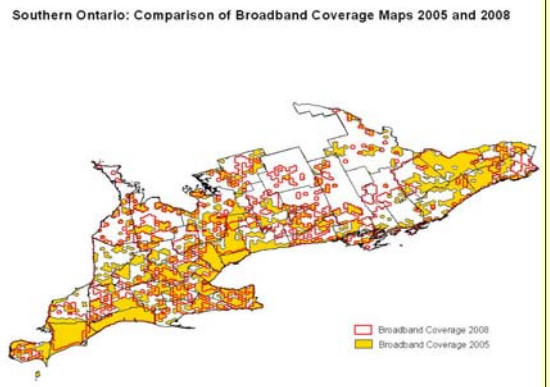
Fig. 1

New Economic Opportunities in Rural Ontario

Ontario has the largest agricultural and food processing sector in Canada accounting for sales of $30 billion and 11 per cent of Ontario's employment. Southern Ontario farms are mainly small and medium sized. The agricultural sector is dealing with the demands of larger processing and retail (super-store) companies. As well, localized food systems have gained greater attention, including closer links to food in public institutions such as schools and hospitals (Ontario, 2010). Strategies to revitalize family farms and tend to emphasize more effective and efficient crop and livestock production that offers the market a wide range of food variety and high-value products. Communication, information and knowledge management have been found to be central to growing the rural Ontario economy. The review of relevant literature finds that broadband can support new forms of entrepreneurial development, teleworking and new platforms of agri-food exchange that encourage new business formation from rural leisure and tourism to manufacturing.

Broadband Coverage and Internet Use

Broadband is an integral part of rural innovation for the sharing of codified (e.g. written) knowledge, and in combination with other technologies (e.g., cell phones) to enable the sharing of tacit (e.g. unwritten) knowledge. Both types of "know-how" generate and sustain economic opportunities. Broadband refers to the very high-speed transfer of information through high-capacity technologies such as fibre optics, satellites, wireless transmission and co-axial cable. It is capable of supporting data rich applications such as full motion interactive video, video conferencing, peer-to-peer file interaction, and voice communication. A transmission rate of 1.5 megabits per second (1.5 million bits of information per second) is often considered to be the minimum speed for acceptable broadband applications (with most service providers in Canada offering 100 mbits/sec). Unlike a traditional dial-up connection, broadband services are always on, enabling productivity and efficiency improvements. Our study finds the cost of broadband varies across southern Ontario from installation costs of $100 to $800 in addition to monthly costs of $35-300.



This study aggregates data at the Census Division (CD) level to present a general overview of the spatial geographical coverage of change in broadband service in southern Ontario between 2005-08 (Figure 2). It is possible to identify both an urban "shadow effect" from large metropolitan areas as well as a continuing "gap effect" in connectivity *among* the CDs. The gaps also persists *within* the CDs. There are also areas of relatively high population with very low to moderate broadband coverage. These areas are worthy of a "quantum leap" forward in terms of investment in rural broadband capacity. Research that monitors patterns of change in rural broadband in southern Ontario, and across Canada should continue.

Conclusion

The forecasted population growth for southern Ontario combined with the enduring "gap effect" of high-speed Internet access is working against the agri-food economy as well as new opportunities for non-farm employment. Broadband investments by federal, provincial and municipal levels of government need to balance technological capacity with investments in maximizing individual entrepreneurial and institutional capacities for new rural economic opportunities.

References

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