

## EXPLORING DIVERSITY IN RURAL CANADA

WILLIAM REIMER, *CONCORDIA UNIVERSITY*

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**M**ost measures of diversity focus on outcomes. This is to be expected for service or government institutions, but it is of limited value for understanding the processes driving those outcomes. It is understandable that departments of labor view rural diversity as labor diversity and departments of health view it as diversity in health, but analysis of employment levels or mortality figures alone are insufficient to understand the reasons for their variation. Where analysis takes priority over description, we need to examine diversity of the conditions or processes that are likely to affect the outcomes as well as the outcomes themselves.

The Canadian Rural Revitalization Foundation (see text box) takes this approach when investigating rural Canada. Our measures of diversity start from a concern with rural revitalization. This concern emerged from our view that rural people face significant challenges that are devitalizing their economic and

social conditions, especially at a local level. We wished to understand the processes that contributed to the challenges in order to develop appropriate long-term responses to them, rather than deal only with the outcomes in a piece-meal fashion. This approach led us to a research design identifying diversity of processes and conditions rather than outcomes alone.

### DEVELOPING A RESEARCH FRAMEWORK

As a result of our preliminary investigations, we identified four important processes creating challenges for rural Canada. The first was the changing organization of trade, especially with respect to the commodity trade that has traditionally been part of the Canadian economy. The export of fish, timber, agricultural products,

The Canadian Rural Revitalization Foundation is a network of rural researchers, policy-makers and rural citizens who have been collaborating over the last 16 years around our common interest in rural issues (<http://www.crrf.ca>). In 1997, we initiated a five-year project entitled, "Understanding the New Rural Economy: Options and Choices (NRE)." This project includes data collection and analysis at macro, meso and micro levels; the integration of rural people into the research process; annual conferences and workshops; and the establishment of a research infrastructure across the country. It also includes collaboration with a number of international partners, primarily from Europe and Japan (<http://nre.concordia.ca>).



minerals and oil continue to provide major contributions to our balance of trade [15]. Under current conditions of technological development, market concentration and trade liberalization, all of these resource-based industries are labor-shedding; however, they are creating a population crisis especially for more remote rural locations [2].

The second rural process we identified was economic fluctuation and instability. Economic uncertainty has been particularly difficult for smaller centers to deal with, since their relatively specialized and small economies make them vulnerable to dramatic changes even if it is only one industry or enterprise that faces the crisis [8].

The growing influence of metropolitan regions through labor force, political and cultural hegemony is a third process affecting rural areas [6, 7, 11, 12, 13]. It is reflected in migration, changing commuting patterns, homogeneity of mass culture, and growing urban political representation.

The fourth process was the reorganization and restructuring of basic institutional structures, especially those relating to the state such as health, welfare and education [1, 5]. Evidence of this restructuring is seen in the withdrawal of state services, the dismantling of the welfare state, and the undermining of the traditional institutional bases of rural places [3, 10].

#### **THE NEW RURAL ECONOMY SAMPLE FRAME [a]**

These general processes have

diverse impacts at the local level, often going unnoticed in data aggregated at national, provincial or even regional levels. For this reason, we started with units of analysis that were sufficiently small to reflect the diversity and social

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organization of rural places — Census subdivisions [b]. Though many of the underlying processes are global in origin, and most of the policy decisions are made without the direct participation of rural Canadians, we also recognized that small, local groups are well placed for social action. In fact, we found many examples of these groups taking charge by identifying the challenges, searching for solutions and taking action to improve their conditions. We wished to include an examination of this capacity within our study since it went to the heart of the options and opportunities

that may emerge under the new economy.

We constructed four dimensions reflecting the processes identified above and established four comparisons among Census subdivisions according to these dimensions. First, whether they were integrated into the global economy or dominated by economies that were predominantly local or regional (based on industry employment); second, whether their local economies were fluctuating or stable (based on industry employment); third, whether they were adjacent to or distant from major urban centers; and finally, whether they had high levels of institutional capacity (e.g. schools, hospitals and other services) or whether this capacity was low.

The cross-classification of these four dimensions (with a fifth, representing outcomes), produced a matrix of 32 cells. Using available Census information, we classified 1,239 of the 4,882 rural Canadian Census subdivisions into their appropriate cell and randomly chose one site from each of the cells. This produced the basic structure for the NRE Sample Frame and Rural Observatory field sites that emerged from this frame (Figure 1).

Since 1997, when the NRE Sample Frame was developed, we have established research teams (including local people) in most of the field sites. In 1998, we prepared profiles for each of the sites. These included historical documents, information about the local





**Figure 1. The New Rural Economy Rural Observatory Field Sites, October 1998**



labor force, economy, government and governance, third sector (philanthropic, civic and nonprofit) groups, transportation, communication and infrastructure. In 2000, we updated the 1998 profiles and gathered site-level information regarding major events, small and medium-sized enterprises, co-operatives, voluntary groups, key institutions (formal and informal), and impressions of key informants. In 2001, the NRE team conducted interviews in just under 2000 households from 20 of the sites. The profiles were repeated in 2003 and will be again in 2005.

The NRE Rural Observatory has become a powerful and innovative tool for investigating not only the

local characteristics and dynamics of rural sites, but linking those sites to critical features of the conditions within which they operate — including regional, national and global aspects. Since any rural Census subdivision can be located with respect to this framework, it is possible to compare non-NRE field-site research with our results, thereby increasing the power of previously independent research projects.

**DO THE DIFFERENCES WE IDENTIFIED MATTER?**

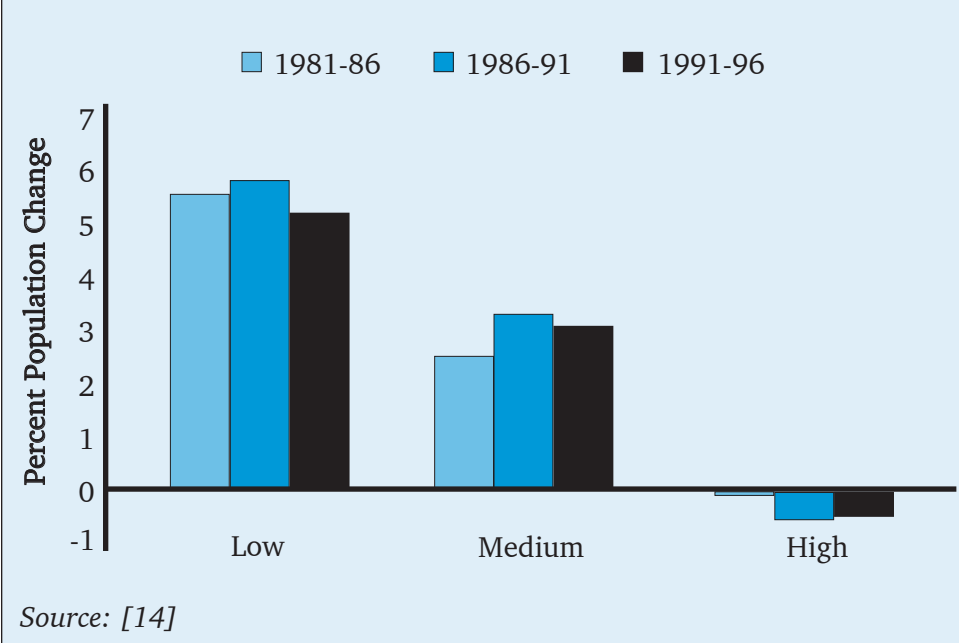
The simple answer to this question is “yes,” while the more complicated answer is: “Not in a simple fashion.”

**Exposure to Global Economy Matters**

Exposure to the global economy matters — especially for the population of rural places. Figure 2 illustrates this clearly by comparing population change in rural Census subdivisions according to their exposure to the global economy. It compares Census subdivisions with low, medium and high exposure for three different time periods. In all cases, population growth is highest (around 5 percent over 5 years) for those Census subdivisions that have low exposure to the global economy, whereas those with high exposure show the lowest growth (and, in fact, a slight population decline). Along with this decline go the



**Figure 2. Exposure to the Global Economy Means Population Decline**



many social and cultural impacts so closely associated with population: reduction in services, loss of local control, outflow of capital, and reduced or altered social cohesion.

### Economic Stability Matters

Another example of the utility of our framework can be found in the analysis of health in rural areas [c]. When taking the role of economic stability into account, we find that important conditional effects occur (Figure 3). In those sites with stable economies, global exposure provides a slightly reduced level of mortality, whereas in fluctuating economies, global exposure shows a significant reduction. Fluctuating economies appear to increase mortality in locally-connected economies but lower it in globally-connected ones. We find many examples of similar conditional effects in other outcomes investigated.

### Metropolitan Adjacency and Local Capacity Matter

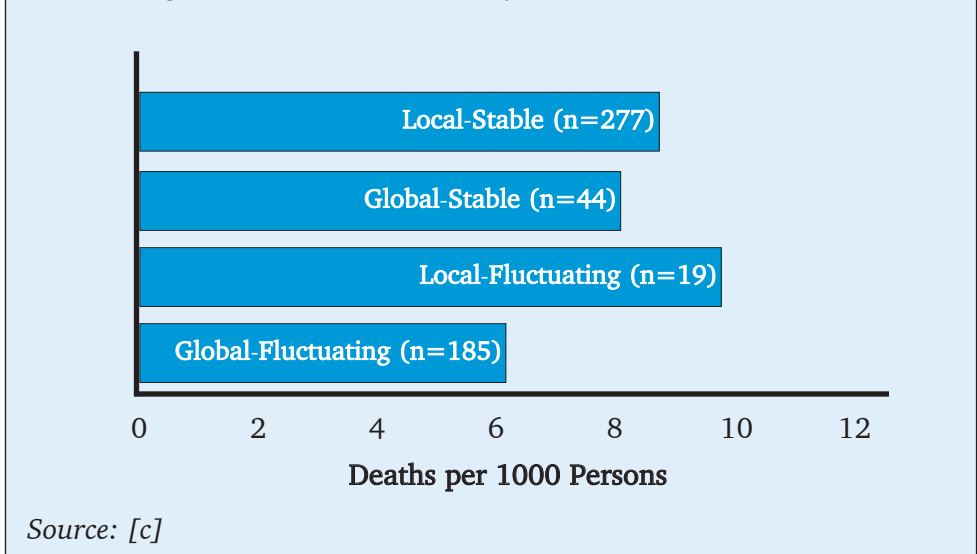
The third dimension of our sampling frame reflects the importance of nearby urban regions on rural places. To investigate this, we divided Census subdivisions into two types: those that were within 100 km (62 miles) of a center of 100,000 people or more, and those that were beyond this 100km dis-

tance. This approximates a limit to commuting distances. Census subdivisions that are adjacent to metro regions have higher levels of socio-economic outcomes as reflected in our distinction between ‘leading’ and ‘lagging’ [9], but the data suggest a more complex relationship than originally expected when other conditions are taken into account.

Figure 4 provides an example of this by considering the percentage of people employed in the Census subdivision as an outcome. As expected, education and age play important roles in employment, but they appear less important than contextual characteristics such as involvement in the global economy, adjacency to metropolitan areas and local capacity.

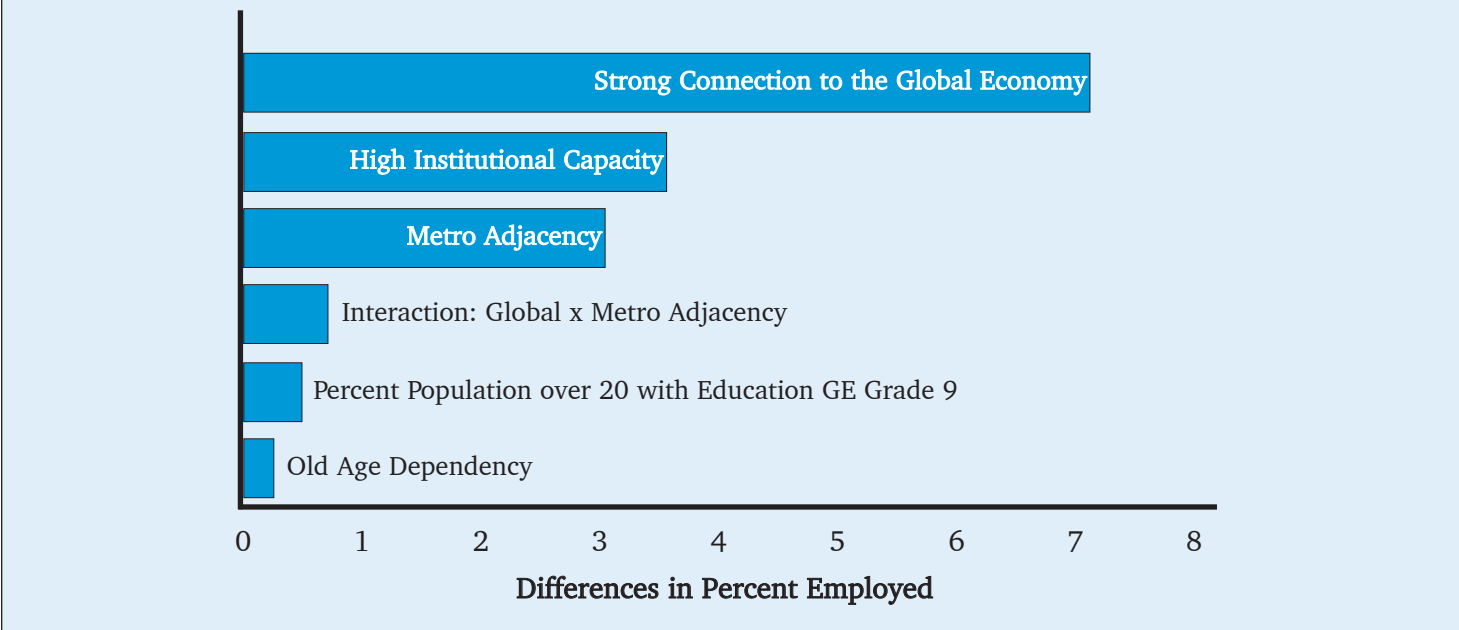
The data also show that metro-adjacency has a conditional relationship to employment in interaction with the local site involvement in the global economy. Since both the variables in the interaction were ‘centered’ before the interaction term was constructed [d], the

**Figure 3. Age-Standardized Mortality Rates - 525 Rural Ontario CSDs**





**Figure 4. Impacts on Percent Employed Due to Census Subdivision Characteristics (Multiple Regression Analysis)**



results indicate that higher levels of employment are found in different circumstances: metro adjacent sites with high global connection, as well as non-adjacent sites with more involvement in their local economies. This suggests that more remote sites are likely to improve employment levels by building their regional economies over global ones, whereas the strategy for metro-adjacent ones may be the reverse. In this respect, one ‘size’ does not fit all.

### Local Capacity Matters

Figure 4 also demonstrates the role of capacity for employment. The existence of local institutions contributes significantly to the level of employment beyond the human capital, trade and location features of the sites. The more sensitive measures of capacity found in our survey data from 1995 rural households confirm this finding. A key

focus of our agenda for the next few years will be detailing the ways in which capacity, social capital and social cohesion modify similar outcomes.

### POLICY IMPLICATIONS

Policy-makers must look beyond the diversity of outcomes to consider the conditions and processes underlying them. This analysis shows how the diversity of population, health and employment outcomes are closely related to local economic and social conditions — often in complex ways. Policies that encourage strong connections to the global economy, for example, may have to be accompanied by those which address the population and service declines that often follow.

At the same time, policies and programs must be sufficiently flexible to meet local conditions that modify outcomes. As our analysis

demonstrates, health and employment outcomes are likely to be different for policies applied in metro-adjacent locations as opposed to more isolated ones. This suggests that location-focused programs may be a necessary adjunct to policy-development. Improvements in employment outcomes may be better achieved by building local or regional economies in remote sites, for example, while building global ones in metro-adjacent locations.

Finally, our analysis points to the importance of institutional capacity for economic outcomes. This complements the increased attention given to social capital for understanding economic and community development outcomes, and it signals to policy-makers that the social and institutional processes underlying those outcomes must be part of the policy analysis.





## CONCLUSIONS

This approach to measuring rural diversity has benefits that go far beyond the documentation of differences. It provides a framework that supports research investigation at several levels. This approach overcomes the limitations of macro-level data for the analysis of local impacts and the limitations of isolated case studies for generalization. The rich detail of the case studies can be compared on the basis of conditions that link them to local, regional and national characteristics.

Our approach has also greatly enhanced collaboration. The heavy demands of case study research make comparison particularly difficult, but by selecting sites within a systematic framework, the opportunity for comparison is greatly enhanced. The structure of the framework avoids the largely arbitrary nature of most site selection, and it provides a meaningful basis for interpreting those case studies originally selected outside the frame.

Finally, the particular dimensions chosen for the NRE Sample Frame have demonstrated their utility in a number of ways. Not only do they show consistent relationships with most of the socioeconomic outcome variables considered, but by doing so, they reinforce the importance of understanding the factors and conditions behind them. This analysis should also caution us that when analyzing diversity on the basis of these outcomes alone, the processes

underlying such diversity are likely to be multi-level and complex. If disparity in outcomes is to receive policy attention, then the processes that generate these outcomes must be understood.

## ENDNOTES

[a] Full details for the design, rationale and implementation of the New Rural Economy Sample Frame can be found in [9].

[b] Census subdivisions are municipalities (as determined by provincial legislation) or their equivalent (e.g. Indian reserves, Indian settlements and unorganized territories) [14].

[c] We wish to thank Roger Pitblado and the Centre for Rural and Northern Health Research for making these health-related data available for analysis.

[d] Centering the values transforms them each to a mean of zero. This means that when multiplying the terms to represent interactions, high values on both variables or low values on both variables result in an interaction term with high values due to the sign rule for multiplication.

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For more information, contact:  
Lionel J. (Bo) Beaulieu, Director  
[ljb@srdc.msstate.edu](mailto:ljb@srdc.msstate.edu)  
Emily Elliott Shaw, Editor  
[emilye@srdc.msstate.edu](mailto:emilye@srdc.msstate.edu)