

The rural context of community development in Canada¹

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Abstract

This paper examines contextual conditions that limit or enhance community capacity processes. Four contextual conditions are considered in the analysis: integration to the global economy, stability of the local economy, metro-adjacency, and institutional capacity. Data from rural Canada are used to explore how these contextual characteristics condition the relationship between the use of social capital and four community outcomes: labour force participation, household incomes, employment, and life expectancy. Results from the New Rural Economy Project in Canada suggest that these contextual characteristics place important conditions on the capacity processes considered. In some case, they accentuate the strength of the relationship between social capital and the outcomes, in others they reduce it, and in a few, they reverse the direction of the relationship between the two. The paper concludes with some comments on the implications of the findings for policy development and community development practice.

1.0 Introduction

Local community development initiatives provide considerable hope for places under stress. Rather than passively suffer the consequences of external pressures, community development approaches provide useful strategies and frameworks for communities to take proactive measures to prepare for and build a better future. They have shown how the identification of assets and liabilities, participation and bottom-up capacity-building, democratic governance, and transparency can create opportunities for groups, towns, and cities (Flora & Flora 2004; Kretzmann & McKnight 1993; Green & Haines 2002).

But local development does not take place in a vacuum. Assets controlled from outside the community can make a significant difference on the options available, just as provincial or federal policies, natural events, and the historical legacy of the region can modify the nature of their relations in ways that condition local opportunities. Without identifying some of these contextual constraints and

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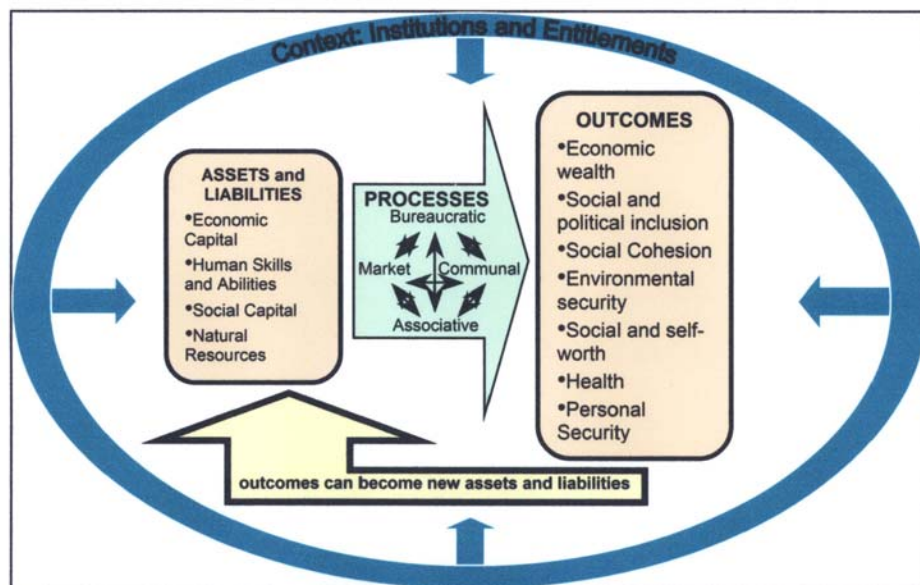
facilitators, community development that focuses only on the local assets and liabilities is likely to result in frustration or failure. Once they have been identified, on the other hand, the options and opportunities for local agency in the face of external forces are likely to be more visible.

This paper provides a perspective and preliminary analysis for framing such local approaches. Using research and insights from the New Rural Economy Project (NRE) of the Canadian Rural Revitalization Foundation (CRRF), we outline some of the key ways in which contextual effects may condition local development processes.² We then provide some research results that can be used to guide both local decisions and general policies for rural revitalization.

Contextual Factors

Capacity is reflected in the ability of communities or groups to reorganize assets to produce valued outputs. Figure 1 illustrates the key elements of this process as we have conceived in within the NRE Project. This model treats assets (and liabilities) as the basic endowments of a community or group. From a community development perspective, these have been identified in terms of economic capital, human skills and abilities, social capital, and natural resources but these are not meant to be exhaustive of the types of assets and liabilities with which a group may have at its disposal. Communities or groups can organize or reorganize these assets and liabilities in various ways depending on their desired outcomes. In the NRE, we have identified a number of outcomes of interest to researchers, policy-makers, and rural people, but as with the assets, this list is not meant to be exhaustive.

Figure 1: The NRE Capacity Model



The central part of the model represents the various processes through which communities or group might reorganize their assets to produce outcomes. This version of the model identifies four normative structures through which this is

² Details on the NRE can be found via <http://nre.concordia.ca>.

done: market-based, bureaucratic, communal, and associative. As discussed in more detail when discussing the measurement of social capital below, they represent some of the ways in which people co-ordinate their behaviour, justify their activities, enforce standards and expectations, and produce outcomes (Reimer 2004; Tiepoh & Reimer 2004). These outcomes can, in turn, become new assets and liabilities which may be used by communities or groups to produce new outcomes in a cycle of capacity building or decline.

Although much of this capacity has been treated as locally based, it is important to recognize that there are significant constraints on it due to conditions beyond local control (Marsden 2004). These contextual conditions can impinge on or facilitate the capacity process at many points as indicated in the Figure. In some cases this occurs through the nature of the assets themselves (Stedman, Parkins, & Beckley 2004) while in others, it occurs through the institutions and entitlements established for the management of those assets (Bird & Tassanyi 2001). The existence of natural resources and the way they are exploited, for example, may be determined by climate and natural endowment, institutional and political regulations, or international markets. Local capacities must be imagined and developed within these more general constraints.

External conditions may also affect local capacity through modification of the action processes themselves (Salamon 2002; Williams, Sligo, & Wallace 2005). National or provincial governments develop regulations that structure local services, infrastructure, and jurisdictional boundaries, for example – and thereby favor certain forms of organization over others. This may, in turn, modify the assets-outcomes relations by facilitating or inhibiting certain types of capacity over others. The recent round of amalgamations encouraged or enforced by Provincial governments, for example, change the issues and agencies that local communities might control, those that they don't control, and the things they could control (Vojnovic & Poel 2000).

In order to examine the relation between contextual effects and local processes, we will focus on the relationship between social capital assets and selected community outcomes. This choice is strategic since it builds on the strengths of the NRE research and addresses issues that have been neglected in the literature on community and economic development. Using the NRE capacity model, we will first of all examine the general relationship between social capital assets and key outcomes, then introduce contextual conditions in the analysis to see how the general relationships might be altered. In this way, we not only contribute to the general understanding about asset-outcome processes, but identify specific place-related characteristics that can modify those processes.

The NRE project provides the basic data and research framework for our discussion. It is a national, multi-disciplinary, collaborative project established in 1997 by researchers, policy-makers, and rural citizens. Among other things it was designed to monitor four contextual characteristics that condition the options and opportunities for local communities: the integration of local economies into the global economy, the stability of the local economy, the proximity to major urban centres, and the level of institutional capacity in the local region. These conditions served as the basis for the sample frame from which the 32 sites in the NRE Rural Observatory were drawn and they have been used as primary comparisons within the profile, census, and survey data analysis of the project (Reimer 2002a). These four conditions will be the primary focus for this paper.

Global Economic Exposure and Integration

Canada has always been a nation with strong global connections. Its colonization was largely driven by outside interests in our natural resources and our balance of payments continue to be maintained by extensive commodity trade (Reimer 2005). Rural areas have always been directly implicated in this process because of their intimate connection to the natural resources we trade.

Recent concerns with freer trade and the globalization of markets, therefore, occur in a background of a long history of global trade. What makes it different now is the scale, competition, and ideology of the recent changes. The quantity of trade is increasing, the range of actual and potential trading partners has grown, the number of competing nations has increased through both technological change and political agreements, and political discourse for more open and extensive trading has become dominant.

The extent to which a rural community is exposed to these forces is likely to condition its options in significant ways (Task Force on Persistent Rural Poverty 1993:314; Marsden 1998; Drummond & Marsden 1999). Our analysis, therefore, will include this as a key dimension for comparison.

Global Economic Integration and Exposure indices were developed to measure how much an area is integrated and exposed economically to the global or international market (Makhija, Kim, & Williamson 1997; Krugman & Obstfeld 1991). Using Canadian census subdivisions (CSD) we identified their industrial employment as a basis for estimating this exposure. An industry is considered globally *integrated* if it engages in *both* exports and imports. An industry is classified as globally *exposed* if it engages in exports *only*.

Three types of indexes were created to measure global economic exposure and integration for three key industry categories. These indexes were constructed as follows:

- Intra-Industry Trade (IIT): the ratio of *net* exports to total trade
- Industry Exposure (EPTT): the ratio of exports to total trade
- Industry Exposure (EPGDP): the weight of exports to total output or GDP

Since trade data was not available at the CSD level, we used Provincial values for key industries, then weighted them by the distribution of employment in those industries at the CSD level. These indexes were calculated for the period of 1993-2002 for each of three key industries: (1) Agricultural/Fishing/Forestry/Hunting; (2) Manufacturing; and (3) Utilities. Results from these indexes were then averaged to give us an overall measure of global connectedness, for each year at CSD level.³ For this project, results from 1996 and 2001 have been selected as community database indicators. This index ranges from zero to one, with zero indicating no global exposure and integration or connectedness and one indicating “complete” global exposure and integration (Tiepoh & Burns 2004).

³ Tourism was not included in this analysis since it contains elements for global connections (with international tourism and ownership) and local connections (with local, regional, or national tourism and ownership).

Fluctuations in the local economy

Options and opportunities for places with very unstable economies will vary from those in which the economic future is relatively predictable (Mankiw & Scarth 2001). Instability makes planning difficult and lowers the attractiveness of the site for new industry and business. In addition, the stability of the economy is often beyond the control of the local community – especially in rural areas. For this reason, we included it as the second conditioning factor.

Economic stability was measured by examining fluctuations in inflation-standardized Real Gross Domestic Product (GDP). Since these figures were not available for CSDs, the Provincial values were weighted by local employment levels. Employment trends were identified by using labour force survey estimates to calculate GDP per capita and CSD industry shares in order to measure economic stability at the regional level. The fluctuation index was based on the standard deviation of weighted GDP figures for 11 industries over the 1987-97 period (Mankiw & Scarth 2001; Sundrum 1990).

The results derived from calculating economic stability are expressed as an index ranging from between zero to one. A value of zero indicates no economic fluctuation (i.e. high economic stability); a maximum value of one indicates a high degree of economic fluctuation (i.e. low economic stability) (Dressler & Burns 2004).

Adjacency to large metropolitan centres

Access to urban centres is a critical element for the economic and social condition of communities and regions. Large urban centres provide a population base for commerce and employment, a wide range of services and institutional resources, and cultural aspects that are often glamorized in the popular media (Jacobs 1984; Newby 1986; Sassen 2000). This geographically-based factor is usually beyond local control.

Metro adjacency was measured using the Metropolitan Influence Zones (MIZ) established by Statistics Canada (2006). These zones were established to reflect the extent to which CSDs contained people who commuted to nearby Census Metropolitan Areas (CMA) or Census Agglomerations (CA). Four zones were identified: Strong MIZ (with commuting flows of 30% or more of the population to any nearby CMA or CA urban core), Moderate MIZ (with commuting flows of 5% to 30% to any nearby CMA or CA urban core), Weak MIZ (with more than 0% but less than 5% commuting flows to any nearby CMA or CA urban core), and No MIZ (with less than 40 people in the labour force, or no people commuting to a nearby CMA or CA urban core). Using these categories, we assigned those in the Weak MIZ, No MIZ, and the Northern Territories to the ‘non-adjacent’ category and all others to the metropolitan adjacency category.

The level of institutional capacity

Local communities also vary greatly in the number and size of major institutions that are nearby. The existence of nearby schools, hospitals, government agencies, and other major service institutions will considerably affect the opportunities for employment and the attractiveness of the location for newcomers (Knack & Keefer 1997; Bollman 1999; Flora 1998). They will also have some important impacts on the level of skills and abilities among the population (Granovetter 1985; Putnam

1993). In most cases, however, the existence of such institutions is beyond the control of local people. For this reason, we include it as the fourth contextual condition for our analysis.

There are few indicators in the public sphere that can be used to measure institutional capacity. As a result, we were forced to use indirect means that focus on individual characteristics and their employment in key institutions (Vansant 2000). This information was assumed to reflect the competence of participants (demonstrated practical skills) and autonomy (legal and structural) of institutions in the following activity areas:

- Accessing and managing resources (financial, human, and technical, including accessing and managing information);
- Carrying out key functions (providing information, services and training; contributing to social and economic progress);
- Responding to exogenous stresses;
- Introducing change when necessary in an effort to achieve the greatest benefit possible from the first two capacities, and to enhance institutional sustainability (through sound internal governance and inter-institutional relations) (Hopkins 1996; Bhagavan & Virgin 2004; IMF 2002; Morgan & Tascherwau 1996).

An index was constructed from the following items:

- % of bilingual individuals in the CSD,
- % of people in the CSD with a post-secondary education,
- % of people in the Census Consolidated Subdivision (CCS)⁴ employed in intellectual and managerial occupations,
- % self-employed workers in the CSD⁵,
- % of people in the CCS employed in education,
- % of people in the CCS employed in government services, and
- % of people in the CCS employed in health and social services.

The formula to measure local institutional capacity uses standardized scores for each of the seven indicators listed above. The average was calculated to create a single index. Results at the CSD level ranged from a low of -18% to a high of 18%. A positive percentage is an indication that a high level of institutional capacity is present within the CSD (Briscoe & Burns 2004).

Table 1 identifies the number of rural CSDs that are high and low on each of these indexes in 2001. The distinction was made by simply dividing the number of cases in half for each of the dimension.

⁴ The CCS is a region larger than a CSD. It represents the labour force region associated with a CSD. It was used in this indicator since many CSDs are unlikely to have major institutions within their boundaries, but they could be found within the broader region identified by the CCS.

⁵ This item was subtracted from the overall index since it reflects a competence that is less likely to be directed to social institutions.

Table 1: Rural CSDs by 4 Sample Frame Dimensions (2001)

Economic Connectedness	Economic Stability	Metro Adjacency	Institutional Capacity	
			Low	High
Local	Stable	Not Adjacent	550	371
Local	Stable	Adjacent	187	154
Local	Fluctuating	Not Adjacent	196	166
Local	Fluctuating	Adjacent	229	115
Global	Stable	Not Adjacent	308	182
Global	Stable	Adjacent	110	102
Global	Fluctuating	Not Adjacent	333	420
Global	Fluctuating	Adjacent	308	378

A similar classification for 1991 data was used to construct the Rural Observatory from which much of the analysis is derived. At that time an additional dimension was added to reflect an overall outcome in the framework. This dimension divided CSDs into leading and lagging categories depending on selected economic and social indicators such as incomes, employment, and education levels. Case study field sites were randomly selected from each of the 32 cells resulting from the cross-classification of these 5 dimensions (Reimer 2002a).

Table 2 provides simple correlations between the four dimensions of the sampling frame. It shows that these dimensions are not independent of one another, but most of the correlations are small. This means that we are able to conduct an examination of their independent effects with few methodological problems. This is clearly less so for the sample of NRE field sites, because of its small size, but by comparing from one data set to the other, we are able to minimize the limitations of the small number of cases.

Table 2: Correlations between sample frame variables for rural CSDs, 2001

	Fluctuating Status (N)	Metro Adjacency (N)	Institutional Capacity (N)	Leading-lagging status (N)
Global-Local Status (1=global)	.29** (3815)	.03 ns (3572)	.00 ns (3832)	.25** (3904)
Fluctuating Status (1=fluctuating)		.16** (3476)	.07** (3774)	-.02ns (3815)
Metro Adjacency (1=adjacent)			-.02ns (3533)	.11** (3538)
Institutional Capacity (1=high)				.04** (3832)

** p < .01; ns = not significant

Key Capacity Outcomes

Our analysis will focus on four key characteristics that are particularly important for rural communities and sites: labour force participation, employment, income, and life expectancy. These have been chosen since they are common indicators for

several outcomes in the NRE capacity model and they are relatively easily accessible among national databases.

Three qualifications must also be made with respect to these characteristics, however. First, they may be treated as indicators of assets as well as outcomes. This is acknowledged in the NRE model as a feedback process and reflected in much of the literature on community development and change (Wilkinson 1989; Freudenberg 2004). For this reason, we will consider the current results as a first step in a more complete analysis of CSD trajectories over time. Future work will build on this first step to examine the longitudinal changes within rural places.

Second, our analysis is limited to synchronic techniques rather than the diachronic ones implied by the model. Since the data has largely been collected in 2001, we are limited to this indirect approach when analyzing capacity processes.

Finally, we do not imply that success in community development necessarily means increases in all of the outcome indicators. Although they all have the potential to significantly affect the well-being of rural places, there are many instances where little or no increase in these variables may be preferable for particular sites, by accident or design.

Labour Force Participation

The extent to which people participate in the labour force has long been a preoccupation of governments and researchers. Labour force participation not only reflects the extent to which people have access to incomes and resources through employment, but it has been used to indicate the level of social inclusion and relative contribution of the population to the economy as well. Low levels of participation, whether through age, family structure, lifestyle, or alienation are generally considered signs of a weakened economic and social system. In a small town or rural context, however, they must be treated with caution if used in this way, since many retirement or recreation-based communities may show relatively low levels of participation without indicating local devitalization.

We use the Statistics Canada census variable of labour force participation as the indicator for this characteristic. It identifies the proportion of people over 18 years old who report that they are in the labour force or looking for work.

Employment Levels

Employment levels are generally used to indicate the extent to which the population has access to the benefits of the dominant economy. They are also indicators of the level of economic and social inclusion in a similar way to labour force participation. Employment usually provides a basis for network development, for example. As with labour force participation, however, employment statistics must be treated with caution when generalizing to all rural places, since low employment may not always reflect a weak economy in small places. The Statistics Canada census variable for the proportion of people 18 years of age and older who are in the labour force but unemployed is used as the indicator for employment.

Incomes

Incomes provide a key indicator of the financial resources and wealth available to a local population. It is likely to be highly correlated to the labour force participation and employment indicators above, but in addition, it includes income from pensions, investments, and retirement sources that play a very important role in many rural places. The access to adequate and stable incomes is likely to considerably increase the development options for rural places.

The median household income is used in our analysis for two reasons. First, we are assuming that the household is a primary economic unit within rural areas. Incomes are typically drawn upon or contribute to all members of the household. Second. It is the unit we have used in our NRE data collection. Using consistent units of analysis for the field site and census-level data in this way will facilitate the comparative analysis.

Health Status

The health condition of the rural population is a key outcome for both rural people and policy-makers. Not only does it have direct relevance for the social condition of the population, but it has indirect effects on the economy and political spheres as well. Unfortunately it is very difficult to integrate health data into the CSD-level information in our database, so we are left with few indicators to measure these outcomes. At the moment, we only have information on life expectancy.

Life expectancy data is available only for health regions. These do not coincide neatly with the boundaries of the sites we have identified, but they provide an indication of the levels for the regions in which the sites are located. The values are calculated as an average for the period between 1997 and 2001.

Capacity Processes – Social and Human Capital

Our analysis will be conducted in two stages. The first stage will be to examine the relationship between capacity assets and processes and the outcomes we have chosen above. The second stage will involve the examination of contextual effects on the relationship between social capital and community outcomes. We will use census and survey data to describe the general situation and trends, but will be limited once again to the NRE field sites when considering their effects on the capacity process.

Measuring social capital

The conceptualization of social capital has undergone considerable debate at both national and international levels (PRI 2005; Grootaert & van Bastelaer 2001). Rather than engage in those debates within this paper, we will adopt the perspective and measures developed within the NRE Project and proceed with our analysis on that basis. More detailed discussions of the rationales and justifications for these measures can be found in several other reports and papers from our work (Reimer 2002b; Reimer 2004; Beckley, Martz, Nadeau, & Wall 2000; Tiepoh & Reimer 2004).

Within this framework, social capital is based on four fundamental types of normative relations: market, bureaucratic, associative, and communal. They reflect

four ways in which norms guide the type of acceptable behaviours within social relations, justify the distribution of resources to the actors, and assign sanctions when those norms are violated. The four types operate to some extent in general, but we usually find that one or the other tends to dominate in specific situations. In some cases, they reinforce one another, but in others they may create tensions or conflict that can undermine the smooth accomplishment of objectives. They may produce outcomes that are positive or negative, particularly if we consider these outcomes by level or time.

Available social capital can be measured by the institutions and organizations within which the social relations are organized. A school, a baseball league, a food bank, or a card club all represent social capital that may be used by people or groups. For those outside the organization, however, the social capital they represent may remain only potentially available. Similarly, for those who are participants, the social capital of the school, food bank, or card club may remain unused for achieving some objectives, even though it may be used for others. It may not occur to them, for example, that their card club may be used as social capital to advance community economic development objectives. Much of community development practice is directed toward recognizing the potential social capital that may be unused or unrecognized by community members then mobilizing this social capital in new ways. Our analysis is designed to be sensitive to this process by which the potential status of available social capital becomes actualized.

We measure available social capital at the site or community level. The institutions, businesses, organizations, and associations within the site are identified and then classified with respect to one or more of the four dominant norms they reflect. These institutions or groups are assumed to reflect the organization of social relations according to the dominant normative structures they reflect. Businesses and business-oriented associations, for example, are considered to be organized primarily on market-based norms. Schools, hospitals, and welfare offices are largely organized on bureaucratic-based norms. Voluntary associations at local, regional, national, or international levels are considered to be organized predominantly on associative-based norms while churches and community family-oriented events are used as indicators of communal-based norms.

On the other hand, we measure the use of social capital through the responses to the NRE household survey conducted in 2001. A systematically selected sample of households was surveyed in 20 of our research sites and one adult member interviewed. The survey provided us with information regarding the activities of household members with respect to employment, voluntary associations, social support, local government, and the informal economy. From the responses, we developed an index for the use of social capital that distinguishes the four types of normative structures within which it was accessed(Reimer 2002b).

As we can see from table 3, there is only a moderate relationship between the availability of social capital and its use (cf. highlighted diagonal cells). This means we are forced to make a choice between measures of available or used social capital when conducting our analysis. Since our primary concern in this paper is with the implications of contextual conditions for local action, we will focus on the used social capital for the time being.

Table 3: Available Social Capital by Used Social Capital (NRE Household Survey - 1995 cases)

Use of Social Capital	Available Social Capital				
	Market-based	Bureaucratic-based	Associative-based	Communal-based	Total
Market-based	.37**		-.20**	-.20**	-.35**
Bureaucratic-based		.27**	-.12**		
Associative-based	-.21**	-.21**	.42**	-.12**	.28**
Communal-based	-.20**		-.11**	.40**	.22**
Total	-.35**	-.17**	.27**	.21**	.40**

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Table 4 provides basic correlations between the use of social capital and the community outcomes we have selected. It includes separate indexes for the four types of social capital, a general index for social capital (Total Social Capital), and one representing the variance among the four types of social capital used by the household. This last index reflects the extent to which the household makes use of a wide variety of types of social capital (low variance) or depends primarily on one type (high variance). It arises from the hypothesis that those sites which are able to function well within more rather than fewer normative structures will be at an advantage when it comes to resiliency and strategic action (Reimer 2002b). We expect this would be reflected in better performance on these economic and health outcomes.

Table 4: Correlations between Use of Social Capital and Outcomes in 2001 (NRE sites)

	LF Participation Rate	Unemployment rate (20)	Median HH Income (18)	Life Expectancy
Total Social Capital		.48*		
Market-Based SoCp	.55*	-.60**		
Bureaucratic-based SoCp	-.60**		-.70**	
Associative-based SoCp				
Communal-based SoCp	-.48*	.77**		
Variance among types				-.64**

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

As seen in Table 4, the overall measure for social capital shows a significant relationship only to the unemployment rate. The positive value of the correlation suggests that the use of social capital may act as compensation for unemployment although we must be very cautious with such a conclusion since it is vulnerable to the ecological fallacy.

A closer look at the various types of social capital reveals several important relations with the outcome variables that were masked by the summated index. Market-based social capital is positively related to the labour force participation rate and negatively related to the unemployment rate in the site. Communal-based social capital shows the opposite pattern, being negatively associated with labour force participation and positively related to unemployment. This suggests that

market and communal-based social cohesion may serve to offset one another in some way. Bureaucratic-based social capital is negatively related to both labour force participation and household incomes. This may be a reflection of the predominance of government institutions among those having a bureaucratic basis. Retired persons, students, and welfare recipients are more likely to make use of this type of social capital. They are also those who are likely to be outside the labour force and have relatively low incomes. Once again, however, we must be cautious with such conclusions because of the multiple levels represented by these variables.

Life expectancy is only related to the variance among the four types of social capital used. The negative sign suggests that life expectancy is highest within sites that make use of many types of social capital. This is consistent with our hypothesis. The processes involved are bound to be complex, but the consistency of the result among various types of sites suggests that further analysis of these processes would be valuable.

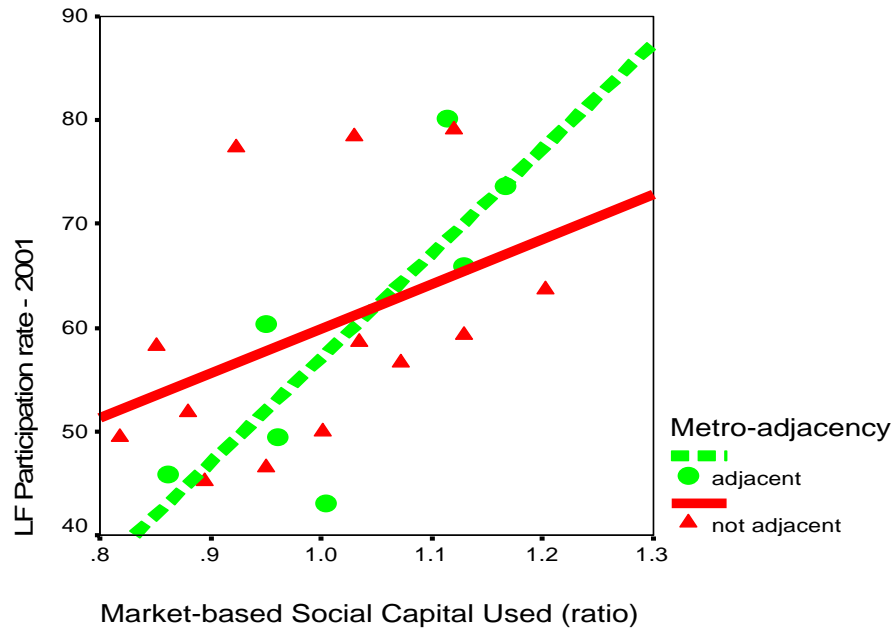
These results make the point that there are important and meaningful relationships between social capital use within our field sites and some of the outcomes of likely interest to community members and policy-makers. The processes behind these relationships remain unclear at this point since the analysis is synchronic and has been conducted at the site level while most of the processes are likely to be internal to those sites. However, they serve as a good basis upon which we can consider the primary focus of this paper: the role of contextual effects on the relationships we have identified above.

Contextual Effects

An examination of simple correlations between the contextual variables and our selected outcomes shows that none of them are statistically significant. One might be tempted to conclude, therefore, that those contextual factors are irrelevant to local development. However, the picture changes when we examine how contextual variables affect the relationships between assets and outcomes within our field sites.

To demonstrate these effects, the relationships between social capital and the selected outcomes are computed separately for each condition of the contextual variables. In Figure 2, for example, the positive relationship between the use of market-based social capital and labour force participation is strongest among those sites that are adjacent to major metropolitan centres. In non-adjacent sites the relationship is reduced (it falls below levels of statistical significance).

Figure 2: Labour Force Participation by Use of Market-based Social Capital and Metro-adjacency



These results suggest that the context of the site is likely to affect the nature and intensity of the relationship between the extent to which market-based social capital is used in the site and the level of outcomes we have considered. The details of the conditioning effects are likely to be valuable information for community development strategies focused on social capital.

To explore these effects, the relationships between social capital and the selected outcomes are computed separately for each condition of the contextual variables (cf. Table 5). The most relevant conditions in the table are those where the correlations exist for one of the categories of the contextual variable, but not for the other. For example, we find that the correlation between the level of market-based social capital and labour force participation is .87 among those sites with relatively stable economies, but it is non-significant among those with fluctuating economies. This suggests that increasing the level of market-based social capital within the former type of sites is likely to have a greater impact on the labour force participation than within the latter type. These conditions are illustrated in Figure 3.

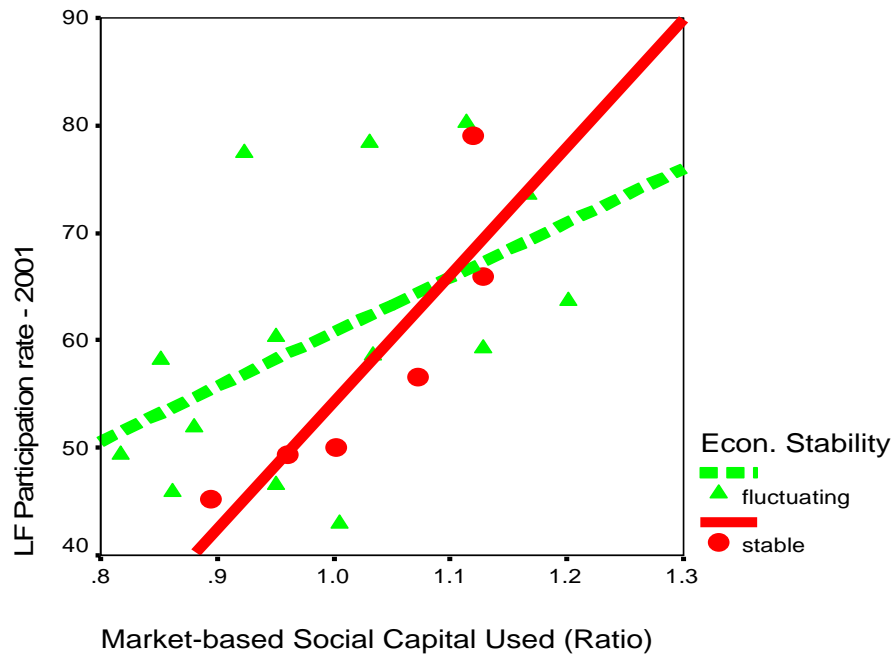
Table 5: Summary of significant contextual effects on the correlations between the use of social capital and selected outcomes (N)

		Type of Social Capital Used				
		Market-based	Bureaucratic-based	Associative-based	Communal-based	Variance
LF Participation Rate	Local					
	Global		-.61* (14)			
	Stable	.87* (6)	.96* (6)			
	Fluctuating				-.62* (14)	
	Not Adj.		-.70** (13)			
	Adjacent	.79* (7)				
	Low Cap.		-.78** (12)	.60* (12)	-.63* (12)	
	High Cap.					
HH Income	Local					
	Global		-.65* (14)	.53* (14)		
	Stable		-.97** (5)			
	Fluctuating		-.56* (13)			
	Not Adj.		-.73* (11)			
	Adjacent					
	Low Cap.		-.78** (10)			
	High Cap.					
Un- employ- ment	Local					
	Global	-.55* (14)			.82** (14)	
	Stable	-.86* (6)				
	Fluct.				.86** (14)	
	Not Adj.				.82** (13)	
	Adjacent					
	Low Cap.	-.75** (12)			.83** (12)	
	High Cap.					
Life Expect- ancy	Local					
	Global					-.61* (11)
	Stable					
	Fluctuating					-.61* (11)
	Not Adj.					-.71* (10)
	Adjacent					
	Low Cap.					-.69* (9)
	High Cap.					

** Correlation is significant at the 0.01 level (2-tailed).

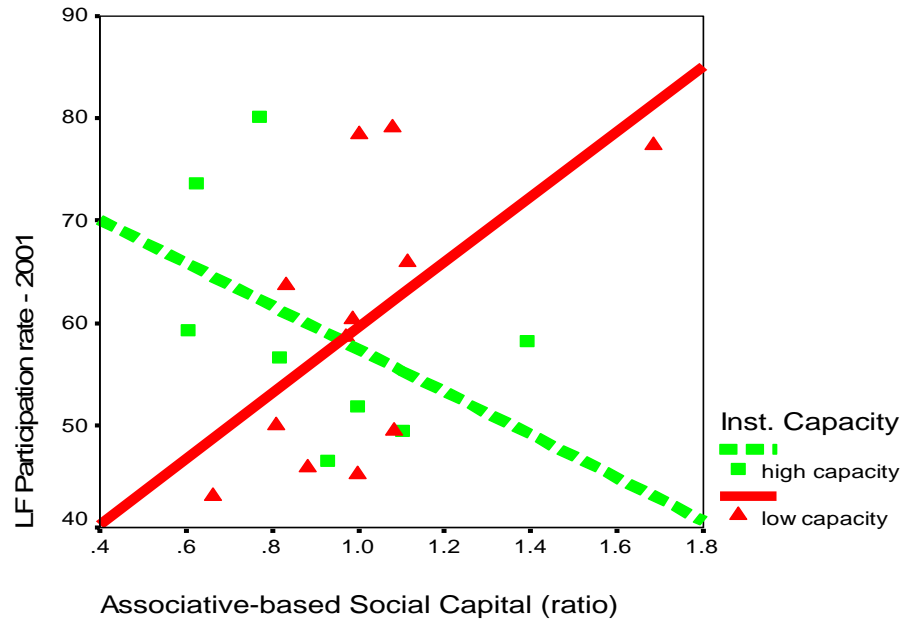
* Correlation is significant at the 0.05 level (2-tailed).

Figure 3: Labour Force Participation by Market-based Social Capital and Economic Stability



In some cases, the conditional effects are even more dramatic – producing opposite results depending on the context. The use of associative-based social capital, for example, appears to have quite different relationships with labour force participation depending on whether the site economy has a relatively high or low level of institutional capacity. This is illustrated by Figure 4. Although the relationship among high capacity sites is not statistically significant, it suggests that there may be important variations to consider when planning local strategies. If the results in Figure 4 are generalizable, for example, it would suggest that building associative-based social capital in low capacity sites will have positive impacts on labour force participation rates, whereas in high capacity ones, its effects will be negative.

Figure 4: Labour force participation by Associative-based Social Capital and Institutional Capacity



A closer look at Table 5 allows us to identify some of the most important contextual variables to consider and their role for social capital. Sites with globally integrated local economies seem most responsive to the use of various forms of social capital, for example. In Table 5, we find that in globally-oriented economies, market-based social capital is negatively related to unemployment, bureaucratic-based social capital is negatively related to labour force participation and household incomes, associative-based social capital is positively related to household incomes, and communal-based social capital is positively related to unemployment. In locally-based economies, none of these relationships appear to be significant.⁶ If this pattern is robust, it suggests that globally-oriented communities are more likely to benefit from attention to social capital in their development strategies than locally-oriented ones.

The stability of the local economy shows similar conditional impacts on the relationships between social capital and the outcomes considered. In this case, however, the strongest impacts are not found so exclusively within one condition. Relatively stable economies show positive relationships between market and bureaucratic-based social capital and labour force participation and negative ones between bureaucratic-based social capital and household incomes and between market-based ones and unemployment. However, in fluctuating economies, the use of communal-based social capital becomes more important. Within these types of sites, communal-based social capital is negatively related to labour force participation and positively related to unemployment. This reinforces the conclusion that family and close friendship networks are more important where the economic stresses are high, but it leaves open the question why this relationship

⁶ Since the number of cases for locally-based sites is rather small (6) we repeated the analysis using non-parametric statistics (Spearman's rho) and found the same pattern of results.

should be more important in sites with fluctuating economies over those where the economies are stable.

Adjacency to metropolitan centres shows mixed results with respect to the use of social capital and the outcomes considered. Non-adjacent sites are more likely to show negative relationships between the use of bureaucratic-based social capital and labour force participation and incomes and a positive relationship between communal-based social capital and unemployment. On the surface, this suggests that using bureaucratic and communal social capital in response to economic stress is most likely to be found as a common strategy in non-adjacent sites. In adjacent sites, on the other hand, the only significant relationship is between the use of market-based social capital and labour force participation. What is remarkable about these results is that the use of market-based social capital has little relationship to such participation in non-adjacent sites. This challenges simplistic claims that social capital enhances economic performance under all circumstances (Putnam 1993).

We find that institutional capacity also shows conditional effects on the social capital-economic outcome relationships. In this case, it is low capacity sites that are most often the locus for such relationships. In low-capacity sites, the use of bureaucratic and communal-based social capital is negatively related to labour force participation, but the use of associative-based social capital is positively related to the same outcome. Bureaucratic-based social capital is also negatively related to household incomes. As with several of the other conditions, unemployment is positively related to the use of both market-based and communal-based social capital. In high capacity locations, however, none of these relationships appear significant. This raises the question whether the use of social capital is a secondary means of access to these economic benefits. Within sites where there is institutional strength and high human capital, employment and income are first of all sought through these avenues rather than through social capital. Within sites with low capacity, social capital provides a more important system of access to these outcomes.

Finally, we find that all four of the contextual variables are important for examining life expectancy outcomes, but not in the ways above. They have no impacts on the direct relationship between the use of each type of social capital and health, but they become particularly important when we consider the range of social capital types used. In global, fluctuating, not-adjacent, and low capacity sites, for example, we find that the life expectancy is highest where there is a relatively wide use of the various types of social capital. This is reflected in the negative relationships found in all these cases. These results are consistent with our hypothesis that advantages accrue to sites that are able to make use of a wide variety of types of social capital, but it also raises a further question: Why should this primarily be the case within global, fluctuating, not-adjacent, and low capacity sites?

Conclusions

In general, these results provide strong evidence for the importance of contextual conditions for local community development processes. They show that the relationship between the use of various forms of social capital and selected economic and health outcomes will vary depending on those contextual conditions.

They support the NRE model that views local development as a mix of both endogenous and exogenous factors – sometimes interacting in contradictory ways – and they go on to highlight what some of those factors might be. Building associative-based social capital may not always have positive impacts on household incomes, for example, especially where the local economy is relatively isolated from the global economy.

This analysis suggests that all four of our contextual conditions play an important part in local processes. On their own, they appear unrelated to the outcomes selected, but their importance emerges when we examine their conditioning impacts on the relationship between the use of social capital and those outcomes. The details of their roles differ significantly, however. The global connectedness and institutional capacity variables appear to have their significant impacts within one of their conditions (those sites that are globally connected and those that have low institutional capacity). The other two (stability of the economy and metropolitan adjacency) are related to the social capital-outcome relationship under both of their conditions. In most cases they accentuate the relationships found, but there is also evidence that some of those relationships may be reversed depending on the context.

In all of these cases more research is required – especially research that permits in-depth analysis of local dynamics within a framework where contextual differences can be examined. This means we need databases that are multi-level, detailed, and longitudinal. The results reported here are limited because they are synchronic – thereby making it impossible to identify causal relations between the variables. The theoretical model we use, however, proposes diachronic processes at both the local and contextual level. If we are to explore the details and consistency of those relationships, therefore, we need to develop the databases to make it possible.

The NRE project provides one model for doing this. From the beginning, we have collected information about processes at a local level, but we have done so only after ensuring that appropriate comparisons can be made. These results confirm the wisdom of this strategy at the same time that they identify specific directions for research, policy focus, and strategic planning.

These results have implications for researchers, policy-makers, and local citizens. First, they should caution us if we take a strict focus on endogenous factors related to local outcomes. Without taking into account the context, we are in danger of misjudging the likely impacts of local changes. Building local capacity through social capital may be a sound policy in general, but it needs to be modified according to local conditions, the type of capacity considered, and the outcomes desired. The variables considered in this paper are but a few of the possible ones to be considered in the long term.

Second, we need to develop the research designs that are appropriate for the level of complexity required. This necessarily means collaborative work since the detail and number of cases required cannot be achieved by one or two researchers on their own. But this approach requires more than inspiration – it needs the institutional and financial capacity to put it into place. Once again, policy-makers need to understand why this is so – in order to adapt such programs to either avoid the negative effects or to provide compensation for those who may become vulnerable to them.

Rural citizens and leaders may use these results to better understand the constraints and facilitators they identify and to prepare their strategic options for the future. Those living in sites that are well connected to the global economy with plans to increase this type of connection would be well advised to prepare for any negative impacts likely to be felt on incomes, employment, or health. These data suggest, for example, that all forms of social capital may be particularly important for consideration in these plans.

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