CUISR:

Community – University Institute for Social Research

Situating Indicators of Social Well-Being in Rural Saskatchewan Communities

by Maureen Reed

Building Healthy Sustainable Communities

Community-University Institute for Social Research

CUISR is a partnership between a set of community-based organizations (including Saskatoon District Health, the City of Saskatoon, Quint Development Corporation, the Saskatoon Regional Intersectoral Committee on Human Services) and a large number of faculty and graduate students from the University of Saskatchewan. CUISR's mission is "to serve as a focal point for community-based research and to integrate the various social research needs and experiential knowledge of the community-based organizations with the technical expertise available at the University. It promotes, undertakes, and critically evaluatea applied social research for community-based organizations, and serves as a data clearinghouse for applied and community-based social research. The overall goal of CUISR is to build the capacity of researchers, community-based organizations and citizenry to enhance community quality of life."

This mission is reflected in the following objectives: (1) to build capacity within CBOs to conduct their own applied social research and write grant proposals; (2) to serve as a conduit for the transfer of experientially-based knowledge from the community to the University classroom, and transfer technical expertise from the University to the community and CBOs; (3) to provide CBOs with assistance in the areas of survey sample design, estimation and data analysis, or, where necessary, to undertake survey research that is timely, accurate and reliable; (4) to serve as a central clearinghouse, or data warehouse, for community-based and applied social research findings; and (5) to allow members of the University and CBOs to access a broad range of data over a long time period.

As a starting point, CUISR has established three focused research modules in the areas of Community Health Determinants and Health Policy, Community Economic Development, and Quality of Life Indicators. The three-pronged research thrust underlying the proposed Institute is, in operational terms, highly integrated. The central questions in the three modules—community quality of life, health, and economy—are so interdependent that many of the projects and partners already span and work in more than one module. All of this research is focused on creating and maintaining healthy, sustainable communities.

Research is the driving force that cements the partnership between universities, CBOs, and government in acquiring, transferring, and applying knowledge in the form of policy and programs. Researchers within each of the modules examine these dimensions from their particular perspective, and the results are integrated at the level of the Institute, thus providing a rich, multi-faceted analysis of the common social and economic issues. The integrated results are then communicated to the Community and the University in a number of ways to ensure that research makes a difference in the development of services, implementation of policy, and lives of the people of Saskatoon and Saskatchewan.

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Maureen Reed

Community – University Institute for Social Research

289 John Mitchell Building
118 Science Place
Saskatoon, SK S7N 5E2
phone (306) 966-2121
fax (306) 966-2122
e-mail cuisr.oncampus@usask.ca
www.usask.ca/cuisr

Community-University Institute for Social Research

University of Saskatchewan

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Lou Hammond Ketilson, Academic Co-Leader;

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Abstract

This report examines community-based approaches for social indicators with particular emphasis on GPI Atlantic's work in Nova Scotia. Although literature was examined pertaining to "community" indicators of social well-being, few studies were found that focused on rural and resource-based communities. It is suggested that social indicator research about rural places must involve strategies to empower communities by providing locally-relevant data in ways that engage local people directly in the research process. In this light, it was discovered that while GPI's research cost money and time, its investment provided a rich learning experience for academics, policy makers, and, perhaps most importantly, residents of these places. The research process also helped to develop localized expertise in identifying research questions, data gathering, and analysis, as well as skills that ultimately may serve to empower local communities to meet their own needs in the long term.

Introduction

In February 1999, GPI Atlantic, a non-profit research group, was approached by the Nova Scotia Citizens for Community Development Society to develop a set of community-level indicators of well-being that would help planners formulate local sustainable development strategies (called community Genuine Progress Index, or GPI). Two pilot projects were conceived, one in Kings County, the other in Glace Bay. Originally, these projects were to be completed within two years so that results could be provided to the communities, and that social, economic, and environmental planning based on this information could commence. Results were to be made available in March/April 2000, with opportunities for public presentations and for project representatives to travel to other communities to share their expertise and assist in formulating their own indicators and data gathering instruments.

However, over $550,000 had been spent more than two years after the intended deadline (May 2002). The Glace Bay data was being entered into a master database, while data for Kings County was still being collected. While a preliminary report had been presented to Glace Bay residents in May 2002, team members estimated that results would be unavailable for another four to six months. The project budget had already been exceeded by $155,000, and the data entry and analysis work was still incomplete. Those involved considered it a success despite the length of time to undertake the project,

the undeniable expense (especially from a rural community's perspective), and many set-backs along the way. Why?

This paper explores that paradox by suggesting that the community GPI in Nova Scotia followed an emerging, alternative approach to social indicators. This approach was based on a philosophy that believed the *process* of formulating indicators was as important as the benchmarks it provided. Many approaches to community-based indicators have operated within a quality of life model in which community representatives and academic or government researchers work together to generate community indicators "for" or "with the people."

In contrast, GPI Atlantic's efforts took the position that their research would largely be conducted "by the people." This strategy moves the processes of indicators up the rungs of citizen participation (Arnstein, 1969), granting to local residents themselves the power and responsibility of decisions and follow-up. This approach confronts criticism that social indicator development and use presupposes "a view from nowhere, a God's eye perspective from no real-life position" (Barth, 1999, p. 97). Instead, the approach is consistent with a small, but important, research emphasis that specifically targets rural communities (Wismer, 1999; Beckley and Burkosky, 1999; Parkins, 1999; Parkins et al, 2001a; 2001b).[2] These approaches not only provide research results directed to particular and locally supported policy ends, they also provide methods that develop localized expertise. In the Chinese proverb, they provide the fishing lessons required for residents to learn to feed themselves and, in the process, to become self-reliant.

While there may be lessons to be learned from urban social indicator experiences, small rural and resource-based communities have specific issues not addressed by urban social indicator practices. This paper argues that rural communities have specific needs and requirements that make processes, as well as outcomes, of measuring social well-being in rural places distinctive from those of urban communities. Community social indicators research that is applied to rural communities requires distinctive features that urban research projects may not share. These features are definitions of rurality and community consistent with rural residents' social circumstances, and processes that empower communities by providing locally-relevant data through establishment of civic processes of engagement with rural residents. These features emphasize a need to establish processes that provide locally-relevant data in ways that engage communities in civic science. In short, it is necessary to situate indicator exercises in local communities' particular circumstances. This is especially true for rural communities where data is not always easily acquired, and where expertise to drive indicator approaches may be less available than in urban areas.

This report examines community-based approaches for social indicators, with particular emphasis on the work of GPI Atlantic in Nova Scotia. Originally, the report's

intention was to undertake a detailed evaluation of GPI Atlantic's work. Unfortunately, the results from its efforts have been delayed, making detailed analysis premature. The strategy of this report, then, is to consider rural communities' needs and to identify alternative research strategies by examining a small number of research initiatives. The next section examines how community-based indicators might be considered part of a new movement that embraces "social learning" and "civic participation." This is followed by an examination of rural communities' needs and characteristics that might participate in indicators work. Next, a three-part framework for community-based research on social indicators is developed and briefly describes studies that illustrate different approaches. GPI Atlantic's work is then highlighted along with particular challenges it faced during its extensive and complex project. Some of these challenges are raised as "outstanding issues," which are embedded within the GPI approach, but are also encountered across a range of community-based projects. Finally, some conclusions are developed about how the Community-University Institute for Social Research (CUISR) at the University of Saskatchewan might become involved in future rural community-based indicator studies.

Roles of Social Indicators

Social indicators have been used to measure social well-being, quality of life, community and population health, and sustainability. According to those involved in such research, indicators have both policy and political outcomes, including helping to create, modify, or implement programs, assisting in designing planning processes or allocating public resources, raising awareness of local issues, or changing individual or collective behaviours as a result of the indicators' feedback.

Social indicators can be defined as "an integrated set of social, economic and ecological measures collected over time and primarily derived from available data sources, grounded in theory and useful to … management and decision making" (Force and Machlis, 1997, p. 371). While all indicators may arguably be considered subjective, the literature classifies objective indicators as those based on secondary, statistical data (such as income, labour force classifications, or population below the low income cut-off).[3] Subjective measures refer to those acquired through self-assessments as obtained through interviews with key informants or more broad-based community surveys (Beckley and Burkosky, 1999).[4] Recent research efforts advocate using both subjective and objective approaches to understand and to take policy actions to improve quality of life (e.g. Kusel, 1996; Beckley and Murray, 1997; Crabbe et al, 1995; Diener and Suh, 1997).

While social indicators that measure collective well-being have been used for almost a century (see Smith, 1991; Cobb and Rixford, 1998; Besleme and Mullin, 1997) new demands are being placed on them. There are at least two elements to these de-

mands. First, there is a broadening of focus as interest in sustainable development has encouraged communities and policy makers to provide a set of indicators that integrates economic, social, and environmental components into measures of societal well-being (Michalos, 1997; Holden, 2001). Second, there is also widespread recognition that practitioners must broaden the base of participation in indicator creation and accountability (Wong, 2000; Holden, 2001; Williams et al, 2001). While aggregated indices may be simpler for decision makers to adopt and address, locally-created lists may be more "realistic, transparent and inclusive" (Holden, 2001, p. 218). Furthermore, success of policy adoption is raised if stakeholders are actively involved in indicator development and selection (Hancock et al, 1999).

Community-based approaches are contained within social indicators' movement. Local governments and communities are required to be accountable and to involve larger segments of the community in policy-making processes (Wong, 2000). In the context of social indicators, these efforts may attempt to rethink conventional ways of measuring progress in favour of new indicators that more fully and accurately reflect individual communities' value and character (Besleme and Mullin, 1997). To achieve this broader mandate, community indicator projects frequently attempt to include as broad a spectrum of the population as possible in order to accurately reflect and consider local citizens' interests.

The role of planners and/or experts has also begun to change as indicators broaden the base of participation and accountability. According to Holden (2001, p. 220), "with accountability to the public comes public empowerment and devolution of institutional power, along with a redefinition of who has the right to participate in policy decisions." Sustainability indicator projects attempt to use data to call attention to community issues, especially problems affecting present and future community or regional sustainability, and try to rally leaders and organizations to collaborate on addressing problems. Indicators may not point to causality or even to the most appropriate policy, but they can and should influence dialogue context and content, facilitating the work of more people and organizations to better design and effectively implement policies and solve more problems (Besleme and Mullin, 1997; Holden, 2001). For community activists, indicator involvement offers the promise of constructive involvement through collaboration with other citizens and policy makers. Thus, indicators offer potential for democratizing decision-making. But it is important to consider the specific context in which these efforts are initiated. The needs and characteristics—even the definitions themselves—of rural communities make their approaches to community indicators distinctive from those of urban communities.

Rural Communities' Needs and Characteristics

There is a large and growing literature related to "community" sustainability or quality of life indicators. Yet, it is not always clear what the "community" is that is being measured. According to Besleme et al (1999), nearly 200 cities across the Unites States have adopted the community indicators process to track community conditions, inform policy choices, build consensus, and promote accountability. While many studies lack any definition of community (e.g. Besleme and Mullin, 1997; Besleme et al, 1999; Holden, 2001), in practice they give primacy to territorially-based definitions over sociological ones (Hancock et al, 1999). Furthermore, much of the effort has been placed on larger, urban centres. For example, Maclaren's (2001) survey of twenty-four community reports across Canada was limited to places with populations of 10,000 or more. Holden (2001) reported on seven indicator programs in Canada and the United States—all from larger urban centres. While these reports offer insight into animating and incorporating public input into indicator processes, they are of a scale that raises different types of issues than those facing rural communities. Definitions of community and rurality have different implications for what and who might be included in rural community studies.

Academic research about "community" suggests that this concept binds together three related ideas: territory, interest, and attachment. Territorial (or place-based) communities are drawn by political and sometimes physical boundaries, such as mountains or rivers. In practice, most indicator studies define their study areas by territorial boundaries. Such definitions assist in data collection, aggregation, comparison and analysis. Beyond territories, sociologists offer socio-psychological views of community, wherein "community involves a limited number of people in a somewhat restricted social space or network held together by shared understandings and a sense of obligation" (Bender, 1978, pp. 7-8). These networks may develop within or without territorial boundaries. "Interest communities," as identified by Crowe and Allan (1994), may be considered local social systems where linkages are established on the basis of common identities determined by ethnic origin, religion, occupation, or leisure interests.

The notion of a "community of attachment" is expressed in forms of collective association and action that take place within communities. Members of territorial and interest communities may be included in some forms of collective activity and excluded from others. Communities of attachment may also include attachment to elements of a non-human nature. This definition also includes a variety of ways that people attach themselves to each other and the land (White, 1995; Carroll, 1995). This affiliation is significant in rural places and contributes to the quality of life to which residents may refer.

Rurality also has geographical and sociological characteristics. Rural may be a geographical concept—a location with identifiable boundaries on a map—or it may be

a social representation that places emphasis on community of interest, culture, and ways of life (see Halfacree, 1993; Shucksmith, 1994). As geographical entities, rural places are often considered as those with smaller, more scattered populations. Rural communities typically have a greater reliance on resource extraction, contain fewer services, have populations with lower levels of formal education and income, and use different criteria for adjudicating "quality of life." While it can be argued that all communities share interests in maintaining peace, securing livelihoods, and retaining a high quality of life, many rural communities express their concerns by different measures than urban ones. Different definitions of "rural" and "community" may lead to different groups of people's inclusion or exclusion from participating in, and being the subject of, community indicators.

Classical definitions have often considered "rural" a residual category of social life. For example, the, 1996 Canadian census dictionary gives primacy to "urban" places by defining "rural areas" as "sparsely populated lands lying outside urban areas" (Statistics Canada, 1999, p. 226). In general, urban areas are considered those places with a minimum population of 1,000 and a population density of 400 or more people per square kilometre (Statistics Canada, 1999, p. 230). Therefore, rural areas include populations living outside places of 1,000 people or more, or outside places with densities of 400 or more people per square kilometre. Uncritical application of these definitions does not begin to consider elements of "rurality" identified in the previous paragraph.

Furthermore, rural communities often do not fit census categories (du Plessis et al, 2001; Wismer, 1999). Therefore, available census data may be quite different from important rural issues. The level of census data tends to be accessible only if localities are able to pay for special tabulations. These may be beyond the means of smaller places struggling with day-to-day infrastructure maintenance needs (Sherwood, 1996). Additionally, the census time interval is often too spread out to provide meaningful trends, and individual rural places may not "fit into" other districts that would collect and provide data on local conditions (e.g. health boards, school districts) (Wismer, 1999). Furthermore, smaller localities' financial and human resources limit their ability to undertake their own research (Sherwood, 1996).

Wismer's (1999) work to help produce a Healthy Communities report for Woolwich Township, Ontario illustrated many of the conceptual and practical problems facing rural communities. Statistical data for measures chosen and used by urban municipalities in the Healthy Communities program were not available in a rural setting. The relatively small population meant that trend analysis for various measures tended to be highly distorted, especially over the relatively short research period (1990-1997). Furthermore, urban projects were more typically initiated by full-time paid staff of planning and social development agencies, whereas the project in Woolwich was organized and led by a group of ten volunteers meeting one evening per month, with some assistance by an academic and a summer university student. Their capacity to

undertake research or analyze results is more limited than sites with dedicated staff and budgets. Nonetheless, there is a desire on the part of local people—particularly within the sustainability movement that embraces both urban and rural settings—to become involved in measuring well-being and making decisions that affect their lives and livelihoods.

Developing a Civic Science Using Social Indicators

> The most useful role of … sustainability indicators … may be their potential to enhance civic processes which value diversity, participation and community-building among the various groups and sectors within a community. The more collaborative problem-solving that occurs, the greater the chances for sustainability (Jacob, 1996, p. 92).

Rural communities face multiple challenges to achieving sustainability and well-being. In Canada, these may include, but are not restricted to, economic restructuring and globalization, local demographic change, changing environmental endowments and attitudes, recognition of First Nations' rights, restructuring of the welfare state, and regionalization of social services within and among rural places. Clark et al (1999) noted that "local" citizens who live, work, and play in rural places are often the key, if not sole, source of technical information essential for effective decision-making. Public scrutiny at the local level may enhance technical decisions related to environmental policy, public lands management, social service provision, and economic repercussions. Yet, discussion and debates about these issues often become divided and acrimonious. Consequently, there is a need to establish participatory processes and mechanisms where people can come to understand, and recognize the diverse perspectives and values held by others as legitimate (e.g. Bengston, 1994; Yaffee et al, 1996; Daniels and Walker, 1996).

Social learning theorists and practitioners advocate collaborative planning models and citizen engagement (Lee, 1993). Increased need to engage the public in meaningful ways has been identified in a number of social planning fields, including population health (Hancock et al, 1999; Wharf-Higgins, 1999), public land use planning (Brown, 1996), community economic development (Roseland, 1999) as well as community indicators for sustainability (Holden, 2001; Hodge, 1997). Arguably, the notion of a "civic science" is best developed in collaborative community and adaptive approaches to environmental management for sustainability. In these approaches, "planning and policy-making are viewed as experimental, evolutionary, and adaptive, attempting to attract the involvement of all people in order to ensure society's survival in optimal development" (Holden, 2001, p. 230).

Community-based approaches to environmental resource management are cur-

rently attempting to promote establishment of a civic science. This involves citizens as researchers and developing a contextual understanding of environmental problems and their resolution (Kruger and Shannon, 2000). Efforts are made to establish tools for managers to inventory and monitor socio-cultural meanings of places so that they can incorporate socially-relevant meanings into social inquiries and planning processes. Cultural approaches recognize aspects of lived experience, including meanings, symbols, metaphors, myths, and traditions, all of which add opportunities for dialogue. Similarly, attention is given to activities/species that not only carry instrumental values such as food or fibre production, but also have symbolic (non-instrumental) values, such as those pertaining to self-identity, spiritual renewal, local myth and history, ritual significance, and a sense of place and community (Martopo and Mitchell, 1995; Pulido, 1996; Berkes, 1999; GPI Atlantic, 2000). These forms may include accepted patterns of gender relations and family formation, work habits, and local celebrations (Wismer, 1999).

These research efforts require more than simply "adding people in" as individual participants in environmental management. Instead, they point to a need to guarantee "consistency of broad representation" by ensuring that traditions, cultural concepts, and self-determination of different peoples are respected and included (Kusel et al, 2001; Moote et al, 2001). This requires a more fundamental reframing to meet others on their own terms, to respect others' knowledge, and to incorporate diverse cultural and social groups within a community, with a particular emphasis on those groups excluded or marginalized in past planning processes (Moote et al, 2001). Increasingly, there is also a need to ensure that local research capacity remains with local communities when "official" government or academic researchers leave.

A civics approach is consistent with these considerations. According to Nelson and Dempster (2001, p. 2), a civics approach includes "widespread participation by … groups and individuals in society through an interactive, collaborative process." It is distinctive from public participation because it attempts to develop civic processes, as opposed to providing "more participation" (Dempster, 2001). In Dempster's words, "rather than focusing on specific decisions or finding 'solutions' to particular 'problems,' civic processes sanction and encourage an engaged citizenry with the capacity, interest and awareness and understanding from which responsible, respective actions—both individual and collective—emerge" (2001, p. 11). To achieve this purpose, civic processes attempt to provide knowledge and understanding appropriate for decision-making (rather than concentrate on establishing values and preferences), offer a venue for extended peer review of results, involve a wide range of groups and people in understanding and taking responsibility for their actions, and encourage dissent without forcing consensus on dissimilar perspectives. Seven elements are important. These are: understanding, communicating, assessing, planning/visioning, implementing, monitoring, and adapting (Neslon and Serafin, 1996; Nelson, 2001). Unlike rational planning models, these elements are not sequential steps, but, rather, each unfolds through inter-

action among multiple participants in on-going exchange processes.

Civic science includes training and leaving capacity behind within those places so that, next time, local people lead. With an emphasis on capacity-building and mutual learning, these approaches may be particularly appropriate for rural communities that may be struggling to redefine their identity, reclaim job opportunities, or simply survive in the face of economic, social, political, and environmental changes that often appear beyond local residents' control. There are varying means to engage local communities in civic science. In the following section, different options available to researchers when attempting to engage communities in indicator research are illustrated.

A Framework for Analysis

Reviews have compared different indicator experiences related to philosophical approach (Diener and Suh, 1997), types of indicators measured (e.g. Beckley and Burkosky, 1999) and general approaches and challenges in different places (Holden, 2001; Maclaren, 2001). Some studies have highlighted ways in which community members have been incorporated within their methodological approaches (e.g. Williams et al, 2001; Parkins, 2001a; 2001b). Yet, there has been much less emphasis placed on reviewing the extent to which studies have integrated knowledge/experiences of local residents or community-based organizations with academic or government organizations.

Table 1 makes distinctions among potential approaches to integrating local residents or community-based organizations. This **Table** highlights different types of local involvement, ranging from local support for projects to local communities undertaking the work themselves. There are two caveats to **Table 1**. First, it is illustrative only; it does not attempt to be a comprehensive assessment of research. Second, it is not intended to suggest that all community-based approaches would benefit from moving towards devolution, as suggested in the category of "collaborative" research. There are cases where such a move is undesirable for government organizations, academic units, and even community members. While these models appear "ideal," there are practical problems associated with their implementation. These may include maintaining public engagement, raising funds locally, and housing and using databases effectively. Consequently, models that include local contributions at key stages of indicator research (such as contributory or operational integration) may be important to pursue. Ultimately, it is important to situate the model within the needs and desires of the communities that they are intended to serve. By selecting a small number of studies for discussion, it highlights particular issues of integration when local communities are directly involved, and, therefore, presents a context within which a more detailed discussion of GPI Atlantic's community GPI work has been engaged.

As **Table 1** suggests, different types of "integration" may occur. In theory, some

researchers have suggested that greater involvement leads to greater awareness and long-term commitment of the participants (Wong, 2000). However, this level of involvement must be tempered with the possibility of burning out community members during the process so that community indicators run out of steam part-way through or lack on-going commitment as key members move on to other projects. Three types of integration or partnership are described here. Contributory partnerships involve an arrangement in which an organization has agreed to provide sponsorship or support (sometimes through actual funding or in-kind support) for activities in which it will have little or no direct operational participation. Operational/consultative partnerships have partners sharing work rather than decision-making power. In this situations, partners may share non-financial resources to a considerable extent even though power is retained primarily or exclusively by the partner that provides financial resources. Nonetheless, participants influence the process at several points, from the development of indicators through to input on policy recommendations that might come from the study. Collaborative partnerships involve joint decision-making regarding objectives, resources to be shared (information, labour or money), logistical arrangements, data gathering and interpretation, and how to distribute the final results.

Table 1. Potential Integration or "Partnership" Between Communities and Agencies or Academic Researchers. Adapted from Mitchell (2002, p. 188)

Type of alliance	Purpose	Extent of power sharing
Contributory (e.g. Doak and Kusel,1996; Kusel, 1996) • research is done *about* and *for* community groups.	*Support sharing:* to provide in-kind resources, support or funds for research	Agency/academic retains control of research process, funding etc., but communities may propose or agree to the objectives of the research
Operational/Consultative (e.g. Parkins, 2001a; 2001b; Williams et al, 2001) • research is done *with* community groups	*Work sharing and advisory:* to permit participants to share resources and work, and exchange information for selection of indicators and for policy recommendations	Agency/academic retains control. Participants can influence process through their practical involvement, including input into policy recommendations that result.
Collaborative (e.g. Wismer, 1999; GPI Atlantic through consultation, training and execution) • research is done *with* and *by* community groups	*Decision-making:* to encourage joint decision taking with regard to study design, funding, indicator development, implementation of methods, analysis and policy recommendations	Power, ownership and risks of the project are shared.

CONTRIBUTORY

In 1996, Doak and Kusel (1996) and Kusel (1996) reported on their attempt to develop a community capacity measure and to animate potential for improving well-being. In their study, researchers conducted workshops with local experts knowledgeable about diverse community issues, institutions, and resources facing residents of communities located in the Sierra Nevada Ecosystem. Local experts assessed components of community capital (physical, human, and social capital) and identified those most closely linked to overall community capacity. They then compared results from these workshops to a socio-economic scale derived from census data (Doak and Kusel, 1996). They concluded that objective indicators derived from census data were weakly correlated with self-assessments. Some places where socio-economic scores were higher did not lead to greater community capacity, such as where well-educated retirees or professionals failed to work cooperatively on community issues. Alternatively, those residents with long histories in particular localities (even where socio-economic scores were lower) tended to demonstrate higher levels of community capacity. Their research illustrated that particular demographic characteristics may be predictive factors in explaining differing levels of community capacity. This research, conducted with local residents' support, illustrated the importance of selecting participants as these choices influence the accuracy and quality of the information obtained (Kusel, 1996). The results pointed to a need for more detailed, local, and "situated" studies to solidify reasons for the discrepancy between socio-economic circumstances and local capacity. It also illustrated the value of combining qualitative and quantitative assessments of quality of life in rural situations.

OPERATIONAL/CONSULTATIVE

Using a quality of life research framework along with a participatory action research approach, Williams et al (2001) reported on a quality of life study conducted in Saskatoon in late 1999 / early 2000. Part of their focus was to consider how quality of life differs within urban centres. Thus, they specifically sampled different neighbourhood types and analyzed differences across them. Community representatives worked with academic researchers on the project, and a number of public forums were held to assist in developing and critiquing a questionnaire survey, obtain feedback on research methods, and provide opportunities for community members to contribute ideas and suggestions. The local newspaper partnered with the university researchers to provide financial and logistical support, as well as to promote the research with city residents. The survey research was supplemented by semi-structured interviews with a subset of the survey respondents and focus group meetings with marginalized groups, such as the elderly and teenagers who were underrepresented in the survey. In this latter component of the research, they partnered with community-based organizations (CBO's) to select the focus group members.

Their findings indicated that there were significant differences in satisfaction levels across different neighbourhood types, with those of low socio-economic status expressing the least satisfaction and the most consistency across individual and aggregate measures of quality of life. These findings are important in this report's context because they support the notion that localities or communities—even within a similar geographic area—have differing features and needs. Their findings were discussed at a community forum in which an action plan was developed that included recommendations for specific policy changes that would particularly benefit this group. The researchers also made a commitment to monitor initial efforts' results through a follow-up survey (to be conducted in 2004).

Parkins et al (2001a; 2001b) took a locally-defined approach to identify social indicators of community sustainability. Residents in three forestry communities were asked to identify aspects of their community that were key to quality of life. Three tools were used to identify and select local level indicators: workshops, an indicator evaluation framework, and surveys. The locally-defined indicators were subjected to a sustainability evaluation framework and a survey. Workshops provided a list of social indicators. Their own independent evaluation was based on the criteria of effectiveness, relevance, and relative importance to the community.

Workshops identified important quality of life themes, while researchers selected specific indicators. Researchers maintained control over specific indicators because they rated them against "objective" criteria, as stated above. They also wanted to ensure that a range of sustainability criteria was addressed. Community surveys (random and snowball) were then used to rate the priorities of twenty-two indicators. Survey results provided opportunities to compare across communities and to check that concerns identified in the workshops were more broadly representative of the communities. In their research, Parkins et al (2001a; 2001b) found that even seemingly similar rural communities (sharing their location within the boreal forest of Saskatchewan) were as diverse as their residents. Each defined progress toward sustainability quite differently according to local needs and issues.

COLLABORATIVE

In the mid- to late-1990s, Susan Wismer (1999) worked with residents of the Woolwich Healthy Communities project to develop indicators of healthy sustainable communities and mechanisms by which to measure them. Their group decided that criteria for adopting indicators would be whether they were useful, reliable, and feasible according to local needs and conditions. The group also developed quantitative measures that fit local abilities to collect data. For example, a local spring frog-counting program was decided upon and initiated as a measure of environmental quality. Additionally, the township decided and implemented a survey of 20% of households, and worked together with Wismer and a professor of political science, who was also a local resident,

to decide on data analysis procedures. Wismer assisted with research design and supervision/co-ordination of data-gathering. However, this project was not one that she directed from within the University.

All of these studies used local residents to define key terms and priorities for researchers. They differed in scale and scope, but shared a commitment to work with local residents through several stages of the research. A clear distinction between Wismer's (1999) approach and the others is the degree to which academics facilitated or directed the process. Wismer acted as facilitator for Woolwich. Some of the data collection criteria included the feasibility of on-going data collection by volunteers using available resources, as well as ensuring that a broad range of people could assist in data collection from year to year without problems in interpretation or understanding. Participants were most interested in the qualitative measures of healthy communities that they had identified (e.g. local knowledge, people's interest in community events). However, they were concerned that their efforts would not be credible with external organizations unless they also included a substantial amount of quantitative information. The group's ultimate success, however, was establishment of a process and the group learning that the exercise supported.

In the other studies described, communities facilitated academic or government research. In both cases, mutual learning (community "agency") became rooted and was used to advance policy initiatives. In the next section, GPI Atlantic's efforts are considered. This project was a community-based exercise on a scale not previously undertaken. Its unique nature offers new insights for application in other contexts.

Evaluating Community GPI in Nova Scotia

GPI Atlantic is a non-profit research group founded in 1997 and located in Nova Scotia, Canada. Its work is dedicated to developing an index of sustainable development and well-being—the Genuine Progress Index. The research group has elected to consider twenty-two social, economic, and environmental indicators to provide benchmarks of progress on a wide range of social, economic, and environmental assets—including their depletion, degradation, or depreciation, as well as improvement, over time. These indicators have been developed and tracked at the provincial scale. Several reports are now available (see www.gpiatlantic.org).

Some of the greatest interest in GPI Atlantic's work has been from local communities who have sought to assess their local well-being. In 1999, Nova Scotia Citizens for Community Development Society, a non-profit group, approached GPI Atlantic to assist in developing community-level genuine progress indicators. Phase I of the project, financed by HRDC Halifax and the Canadian Rural Secretariat, was completed in June 1999. This work identified Kings County as the test community and, with the participation

of local volunteers, chose priority indicators to be developed. They prepared a work plan and project proposal to undertake this work.

Over forty community organizations met for more than a year to determine appropriate indicators and develop a questionnaire to gather data needed for the index. The final questionnaire included questions on employment / underemployment, voluntary work and care-giving, population health, peace and personal security, soils and agriculture, well-being, and environmental quality. While considerable work on the questionnaire was done in autumn 1999, some funding was delayed until March 2000, resulting in delay and volunteer energy loss.

In March 2000, a second community-level GPI was initiated in Glace Bay, a former coal-mining town with high unemployment located in industrial Cape Breton. The Glace Bay GPI process took about eighteen months to get established. Much of the initial work was in building trust and community partnerships. In both cases, Statistics Canada helped to review questionnaires. They were then pilot-tested. Despite being of considerable length—105 pages in all—and average time to complete—two hours—they had an 80% response rate in each locality. In total, in 2000 and 2001, a staff of nine full-time workers administered two thousand surveys in each community. The data entry began in autumn 2001. Beyond community workers involved in collection, fourteen people were hired to enter the data. In the counties, community groups prepared for analysis and discussion of survey results so that the findings could be presented and received in a way that would translate into action proposals to benefit the community.

To date, the project has cost about $550,000, with grants obtained from eight funding agencies.[5] Dalhousie University and other agencies also provided in-kind support. Beyond this support, there is still a need for more money to complete the project. According to personal communication with Colman (2002), director of GPI Atlantic:

> At the end of data collection and data entry (anticipated to be completed by the end of summer), we will actually be about $155,000 over budget. However, we do have funding applications in for money to help with the data analysis. I feel confident we'll get that, and make up the deficit. After all, the tough and unglamorous part—collecting and entering mountains of data—is the hardest to get funding for and is almost done; while the data analysis and reporting functions are like picking ripe fruit off a tree that has taken eons of care and nurturing to grow.

Throughout this long process, however, there has also been a commitment to learning by all those involved. Part of its philosophy is not simply to develop a "product" or measure of change. It is designed as a process to be enjoyable and educational. It is to be a means for communities to learn about themselves and discuss their own situations in relation to contemporary issues and future objectives. Additionally, the project included

funding for training community development from other parts of Nova Scotia and to provide economic development opportunities from the project itself.

The project also envisioned citizen management of the program. As there was no existing citizens group in the county to reach across all sectors and interests, participants agreed to take up the offer of the Nova Scotia Citizens for Community Development Society to amend its by-laws to allow formation of community chapters to develop and manage the community GPI. This structure will allow initiative transfer to interested communities throughout the province. Again, Colman (2002) summarized this sentiment:

> I do wish you had been with us on May 16 in Glace Bay when we had an amazing researcher-community day to present the first results to the community. It was a real celebration and wonderful set of discussions! We are also now working on data access guidelines that I think can be a real model for community-based research in other places.

The project was also designed to facilitate learning by others. That is, the project was developed as a pilot that could be useful to communities throughout Nova Scotia and beyond. Given this objective, documentation of the process and progress has been extensive and the records transparent (GPI Atlantic, 2000; Colman, 2002). As Colman noted, as preliminary results are becoming available, GPI Atlantic is also working on a data-sharing protocol so that community- and research-based organizations can use the data—not just the results—for specific purposes.

GPI Atlantic's work is not comparable to other indicator projects in terms of long-term grassroots and agency involvement, commitment to training local people, and desire to mobilize community capacity through the community GPI work. This experience offers food for consideration for rural communities, and for researchers who seek to work with them, to adjudicate and promote their long-term well-being. An approach such as that undertaken by GPI Atlantic is a process, requiring large commitments of time, money, and effort to be successful. GPI Atlantic's initial experience is unlikely to be replicated in the same detail in other locations. There was (and remains) a huge effort required to seek and maintain funding, solicit and recognize volunteer and community-based support, maintain linkages with funding and research agencies that can provide logistical assistance, and, ultimately, ensure the reliability and validity of the results, both locally and to broader audiences. Once results are known, GPI Atlantic is committed to developing a "package" that would provide details of the lessons learned for future projects elsewhere. Presumably, these lessons will fall into categories of how to undertake projects at reduced cost and scope so that they would be more likely to be adopted. The following section identifies outstanding issues consistent with lessons arising from GPI Atlantic's work, and are shared by other community-based approaches to developing indicators of local well-being.

Outstanding Issues

In advocating for strategies particular to rural circumstances, there are several potential pitfalls to be addressed. Four of them are described below. These issues are not presented in order of priority.

Standardization and Aggregation

While in many cases, "there is a strong argument for regularizing the methods and concepts of measurement to prevent any haphazard adjustment or manipulation of data" (Wong, 2000, p. 216), rural communities may not be in a position to adhere to such standards. Standardization might erase need for sensitivity to development paths. Furthermore, "use of standardized measures inevitably conceals local diversity and uniqueness" (Wong, 2000, p. 216). Beyond these concerns, there are practical problems of obtaining, integrating, and aggregating data at the small scales that rural communities frequently represent. Particularly in Saskatchewan, data is not routinely collected at the local level, and access to data from census information is seriously limited both temporally and spatially.

Like other indicator approaches, community indicators also face the dilemma of "objective" versus "subjective" measures. As Wismer (1999) noted, community organizations may be interested in qualitative and subjective measurements but fear that policy decision makers will not consider these measures credible. But even "objective" indicators that can be collected in an objective fashion, such as literacy, can be subject to subjective operational definitions, variable measurement techniques and result interpretation (Diener and Suh, 1997; Maclaren, 2001). Beyond these concerns, any attempt to aggregate measures is difficult because it may obscure important quality of life elements, and may not be universally accepted because differences in cultural norms and economic circumstances may mitigate against universal acceptance of particular values associated with assumptions necessary in the aggregation process (Diener and Suh, 1997). These considerations militate against aggregating data for small-scale communities.

Retaining On-Going Commitment

Sustainable Seattle, known for its bottom-up approach, stopped generating reports (after the third one) in 1998 because it was believed to be time to direct limited volunteer energies elsewhere (Sustainable Northwest and Oregon Solutions, 2001). GPI Atlantic had lags in its delivery due to funding spurts and the uncertainties that this created for volunteers. These issues are important, suggesting a need to find secure resting places (i.e. secure funding and an intellectual home) for such initiatives.

Making Community-Driven Projects Credible in the Eyes of Policy Makers

Several studies have suggested that expert-driven models are unlikely to be supported by local communities. Community-driven models, however, may not have the scientific credibility (or appearance of credibility) required to gain decision makers' attention (Wismer, 1999; Holden, 2001). Their experiences are echoed by Parkins et al (2001a) who cautioned that local-level indicators of sustainability might not monitor progress across all dimensions of sustainability with equal vigour. Thus, communities are likely unable to "go it alone" to generate necessary support and credibility for their work. This requires establishment and commitment to on-going partnerships with government, non-governmental agencies, and academic institutions to promote and assist the research.

Linking Education to Action

Even if such partnerships are forged, the link between education and action is not clear. Optimistically, Besleme and Mullin (1997, pp. 43-44) suggested that "by educating citizens about the social and environmental determinants of community health, healthy community projects have been able to develop the strategies and political will needed to effect real change in their communities." Yet, it is impossible to determine the information's impact on policy decision outcomes (Wong, 2000; Besleme and Mullin, 1997). After reviewing several American projects, Besleme and Mullin (1997) concluded that project leaders tend to feel that they have had limited success in follow-up actions. According to Besleme and Mullin, "the influence of information is almost always indirect, and it may take a fair amount of time before the information becomes manifested in actions, initiatives, or policy agendas" (1997, p. 50). Sherwood (1996) noted that this tendency is even more pronounced in smaller places where communities are more likely to make decisions on the basis of "gut feelings" rather than statistical data.

Summary and Conclusions

Notwithstanding these issues, experience suggests that these exercises inspire debates in a manner that may lead to community change. They frequently offer "a means to enhance local capacity and cohesion as these efforts unite government agencies, private citizens, businesses, and community organizations in searching for common values and improving social, environmental and economic conditions in communities" (Besleme and Mullin, 1997, p. 51). Many of the outstanding issues raised here can and should be resolved "in place." There are peculiarities of place that are important to consider when determining how to address these issues. Development of a clear conceptual framework that accounts for local circumstances can help target particular areas of concern and ensure that errors and omissions are acknowledged, addressed, and made the basis for

on-going learning, rather than perpetuate illusions of their absence.

In this sense, then, efforts undertaken to measure community well-being are not made with a fixed beginning and ending point. As Colman pointed out, "this is a community-based project, where the people-energy created and the learning experience generated have their own instrinsic rewards, aside from any results produced. Good research can be exciting and enjoyable in its own right and there is a tremendous opportunity to learn about itself" (GPI Atlantic, 2000, pp. 48-49). Such a project is an intergenerational commitment.

Innes' (1990) call for an interactive model of knowledge development that encourages knowledge providers to improve public discourse of the concepts, methods, and usage of indicators is shared by the model of social learning and civic participation identified earlier in this paper. There are assumptions embedded within community-based approaches to indicators, particularly that lessons learned by citizens and policy makers will provide incentives for improving social outcomes (Holden, 2001; Wong, 2000; GPI Atlantic, 2002; Williams et al, 2001). Yet, these approaches raise concerns over how consensus building and learning are achieved. Community-based projects may be biased towards those social groups who happen to participate, thereby reinforcing a political *status quo* not necessarily inclusive or civic in its intent.[6]

In this context, Schrecker's (1997) concerns are important. He suggests that researchers should "situate" indicators by specifying "*whose* income, health status or well being is being talked about—in class, gender, regional and racial terms, to note just a few of the most relevant distinctions … we need to know both the aggregate distribution of gains and losses and the particular incidence of those gains and losses" (p. 113, emphasis in original). He also demands that researchers consider the observer's situation, as well as that of the observed. In his words, "the concept of situated knowledge demands attention to the situation of the observer as well as that of the observed. Who is deciding what is to count as an indicator of well being? On whose behalf?" (Shrecker, 1997, p. 113). These questions remind us of the need to be vigilant at all stages of the project, and to constantly consider the impact of research decisions on those within and outside any given project.

This research report has emphasized the need to create indicators for rural communities. It is recommended that the GPI Atlantic group's results be monitored, with particular attention to how their process may be adapted for use in rural Saskatchewan. The expertise and credibility of the Community-University Institute for Social Research in monitoring quality of life in Saskatoon could be developed in a manner that encompasses more of the province. As CUISR reflects on its initial successes and seeks additional funding for future work, such an initiative may be appropriate for extending its reach beyond Saskatoon's confines. CUISR should give a close look to lessons learned from GPI Atlantic's work in rural and small communities and consider developing a

module (or supplement current one(s)) related to measuring rural sustainability and quality of life. Such a module could be a platform to transfer lessons learned from GPI Atlantic's work while involving rural communities across the province in identifying, monitoring, and advancing the aims of long term, sustainable, social, economic, and environmental well-being.

NOTES

1 The title for this report was inspired and informed by the call by Donna Haraway (1988) for researchers to situate their knowledge and research practices.

2 This is not to suggest that rural places cannot learn from the experience of urban places (and vice versa). On the contrary, both urban and rural experiences are drawn from in this review. However, the comment was to point to the distinctiveness of rural needs and issues that must also be addressed in creation, development and interpretation of indicator projects.

3 Until recently, the low income cut-off was better known as the poverty line.

4 For review of objective and subjective approaches and relative merits, see Beckley and Burkosky, 1999; Diener and Suh, 1997).

5 In a personal communication, Dr. Ron Colman (2002) stated that a project of this scope would have cost much more money if undertaken by the private sector or civil service.

6 This danger has been raised in the context of other community-based processes by Davis and Bailey (1996) and Reed (1995).

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CUISR Resource Centre
University of Saskatchewan
289 John Mitchell Building
118 Science Place
Saskatoon SK S7N 5E2 Canada
Phone: 306-966-2121
Facsimile: 306-966-2122
E-mail: cuisr.oncampus@usask.ca

CUISR Web site:
http://www.usask.ca/cuisr/

CUISR Community Liaison Office
St. Paul's Hospital Residence
230 Avenue R South
Saskatoon SK S7M 2Z1 Canada
Phone: 306-978-8320
Facsimile: 306-655-4956
E-mail: cuisr.liaison@usask.ca

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