

Expert Workshop on the Measurement of Social Capital for Public Policy

Synthesis Report

June 8, 2004

PRI Project
Social Capital as a Public Policy Tool

In collaboration with
Statistics Canada





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This document is a synthesis report from the **Expert workshop on measuring social capital for public policy purposes**, held on June 8th, 2004, at the Sheraton Hotel in Ottawa. The workshop was organized by the Policy Research Initiative (PRI) as part of its interdepartmental project “Social Capital as a Public Policy Tool”, in partnership with the Social Sciences and Humanities Research Council (SSHRC) and in collaboration with Statistics Canada.

The workshop brought together about seventy academic and government experts to examine different empirical strategies and measurement tools used in social capital research. Emphasis

was placed on *the measurability of social networks that provide access to resources and support*, these being understood as the core constituent elements of social capital. The exercise was to identify essential elements of a “toolbox” for analyzing social capital for purposes of developing and assessing government programs and policies.

The present document provides an outline of the presentations and discussions held by the experts. The structure follows the program, except for Professor Derek Hum’s commentary, for which the complete version is reproduced at the end of the report.

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INTRODUCTION

A network approach to facilitating and measuring social capital

Jean-Pierre Voyer, Executive Director, Policy Research Initiative (PRI)

One year ago, the PRI launched its “Social Capital as a Public Policy Tool” project in order to assess the usefulness and application of social capital for public policy development. Social capital is a subject that raises many questions for policy makers. For example: To what extent do existing inventories of social capital serve to facilitate or impede key policy objectives? What impact do government programs have on the creation, utilization and performance of social capital? How can the use of a social capital perspective improve policy outcomes or make service delivery more effective?

Efforts to harness the concept of social capital for public policy purposes have come up against certain conceptual and measurement difficulties. The debate on the policy usefulness of this concept remains ongoing, and scepticism continues to be voiced on this subject. To be a useful tool, the concept of social capital, like human capital, has to be operationalized so that policy makers can precisely identify what it is, explore its productive potential for achieving broader policy objectives, and identify policy levers for affecting the many ways it is created, accumulated and utilized.

To overcome the conceptual and measurement ambiguities associated with the concept, the PRI has introduced an operational definition and an analytical framework for the study and measurement of social capital for federal policy purposes. This framework is based on a

network approach to social capital. The underlying hypothesis is that social capital refers to the networks of social relations that provide access to resources and support. Understanding how social relations and their dynamics constitute an additional resource for individuals and communities and how these resources can be created, accessed and productively utilized is an avenue which can potentially offer substantial benefits from the public policy standpoint.

In November 2003, the PRI in concert with the OECD and other federal partners organized an international conference designed to bring about a better understanding of the role of social capital in the integration of immigrants and the management of diversity.

A pre-conference workshop

was also held to inform participants of the current status of data development in the fields of social capital and immigration. Two main messages emerged from this activity. First, strategic issues should determine the way that we operationalize social capital. The aspects of social capital that we want to measure and study cannot be established in the abstract: they have to be related to the strategic issues in which we are interested. Second, there is no lack of data on social capital, but rather a lack of coherence and integration in the production and analysis of that data.

In terms of official statistics, we now have available a wide range of data directly or indirectly related to social capital, but most have not been developed on the basis of the same analytical framework. Consequently, existing statistics can provide a basis for doing good descriptive and comparative analysis, and they also allow more or less solid correlations

To be useful, the concept of social capital must be operationalized in ways that allow the identification of policy levers that enable its utilization.

between some of the dimensions of social capital. But the absence of an integrated set of strategic data on key elements of social capital remains an important limit to existing surveys. Thus, it is still difficult to explore relations of causality that would demonstrate how social capital is related to socio-economic or health outcomes. Since empirical investigation of social capital is still in its early stages, it has also been suggested that we take advantage of more exploratory research such as qualitative analysis, case studies and social experimentation, or try out new tools such as those used in network analysis. This exploratory, inductive work will serve to expand our knowledge so that more solid, major surveys can be built that can eventually give us a better understanding of the relationship between social networks, social capital and individual and collective outcomes.

Based on these observations, the PRI organized an expert workshop on measuring social capital for public policy. Some of the top experts in the measurement of social capital and social networks contributed their knowledge and experience toward the goal of laying

the foundations of a rigorous empirical approach to research on social capital. From an empirical standpoint, using a network approach to study social capital takes advantage of a rich, tested body of research that is useful for public policy purposes. Network-based analysis is a field of research that is supported by solid theory and utilizes refined measurement and analysis tools.

A network approach to studying social capital allows us to take advantage of a rich, tested body of research that is useful for public policy purposes.

The expert workshop had the following objectives:

- to offer an overview of the different approaches used to measure social capital from a social networks perspective, based on a relevant selection of Canadian research projects;
- to discuss the analytical potential and public policy relevance of different strategies of empirical investigation of social capital as applied to specific issues, both individual and collective; and
- to explore in greater detail a number of tools for measuring social capital and evaluate the possibilities and limitations of applying them in a public policy context.

SESSION 1:

Main approaches to analyzing social networks and their usefulness for social capital-related public policy

Two main approaches to network analysis are generally differentiated: *the morphological approach*, whereby social capital is a product of the structure of linkages, more specifically of the configuration of social networks, and the *transactional approach*, whereby social capital is instead associated with interactions among individuals, that is the relational dynamic.

The first block of presentations was designed to answer the following questions:

- What are the fundamental characteristics of each of the approaches?
- How are they useful for studying social capital?
- What are their respective implications for selection of the constituent elements of social capital to be measured?
- How are they different in terms of techniques of empirical investigation?
- Is it possible to benefit from both approaches by combining the study of network structures with the relational dynamic?

Measuring social capital through analysis of social networks

Barry Wellman, Professor of Sociology, University of Toronto

Barry Wellman began the day by providing an overview of social network analysis. Wellman defined a social network as consisting of one or more nodes, connected by one or more ties, that form distinct, analyzable patterns. Social network analysis is interested in identifying existing relationships and understanding the resources that are available from those relationships.

Understanding differences in the structures of various network ties is an increasingly powerful tool for explaining variations in resources, social behavior and socio-economic outcomes. Network structures may vary in a number of ways. For example, they may be quite dense, or they may be sparsely knit. They may be tightly bounded, or be permeated with links to many other networks.

Network analysis is the study of existing relationships and the resources to which they give access.

Network analysis may be interested in understanding the structure or pattern of a whole network, or it may be interested in studying the personal social networks available to specific nodes (individuals, organizations,

firms, etc.), sometimes referred to as an ego-centered approach.

Studying a whole social network involves identifying and analyzing a comprehensive set of relationships in an entire social network (village, organization, kinship, etc.). This can be quite a challenge as it requires a roster of the entire population of the network, it requires that there be a social boundary or limit to the network, and analysis may be severely impaired if any data is missing.

Studying a personal social network from an ego-centred view may be a better means of studying unbounded networks, and may be done using standard survey research. However, this approach often tends to concentrate on strong ties at the expense of important weak ties, often relies on potentially inaccurate reports from respondents, and can be hard to aggregate to a collective level.

According to Wellman, we may increasingly see society as a network of networks. A

networked society is characterized by a multiplicity of specialized relations, fluid connections, and new relationships that may be less palpable than those of traditional societies (for example, electronic network relations). Wellman noted that, particularly with new communications technologies, the volume and velocity of social relationships and interactions that individuals maintain have increased (think of your email networks, for example). At the same time traditional household relations are more and more stressed and group ties are increasingly fluid. Finding new tools to navigate a networked society will be important for policymakers.

Networks are formed and transformed over time, depending on circumstances and specific contexts.

Measuring social capital through analysis of relational dynamics

Johanne Charbonneau, Research Professor, Institut national de la recherche scientifique - Urbanisation, culture et société (Montréal)

Johanne Charbonneau's presentation concerned the importance of understanding the rules that permit networks to exist and to produce social capital. While recognizing the interest of studying network morphology for research on social capital, she noted that an approach that exclusively emphasizes the characteristics and structure of social relations could limit understanding of relational dynamics. She insisted that we must go beyond correlations, to investigate the cause-effect links between social ties and resources. She raised the question of whether the possession of personal resources is necessary in order to have access to a diverse, effective network, or conversely, whether one must start with a well-established network in order to be able to access resources. Another important question according to Charbonneau is the actual mechanics of producing and circulating

resources in networks, particularly in terms of rules and standards of network operation.

With the support of a number of research projects partaking of different theoretical traditions and trends, the researcher presented different ways of approaching these issues: work that has been done on personal talents, on social support, on mobilization of resources in the context of key events in individuals' lives, and finally on actual evolution of the make-up of social networks throughout the life-course of individuals by means of panel studies. These projects demonstrate that net-

works are formed and transformed over time, depending on circumstances and specific contexts, and that this automatically affects resource mobilization patterns. They also demonstrate that social networks and social capital do not always operate according to a logic of accumulation. While it is possible to build a stock of social capital, it is also possible to see it fall apart, especially if it is not well taken care of: "You also have to make deposits to your social resources bank account, not just make withdrawals" said Charbonneau. The researcher sees more thorough reflection on the rules and standards that govern social exchanges (e.g., reciprocity and trust) as essential to a better understanding of why some networks can be "mobilized" or "activated" in terms of social capital, and why some cannot. There are certain ingredients such as trust that serve to "lubricate" social relations, the conditions for which are still not well known.

Finally, the researcher pointed out the interest of adopting a life-event perspective for the study of social networks especially to understand the strategies adopted by individuals for co-ordinating resources that they derive from different sources. For example, study of the ice storm emergency in Quebec made it possible

to understand how resource mobilization strategies in social networks also depend on the supply of resources outside the networks, particularly via public services.

Social structure and relational dynamics: two complementary approaches to the study of social capital

*Maurice Lévesque, Professor,
Department of Sociology,
University of Ottawa*

Maurice Lévesque made a detour through the paradigms in order to discuss the public policy interest of network analysis.

The structural analysis paradigm that is the origin of network analysis implies that: (1) the players' behaviours are the result of their social position (in the network), for it is that position which determines the opportunities and constraints of access to resources; and (2) the social structure (the network) is the result of the players' interaction. The studies that focus on structure will generally emphasize the potential of opportunities and constraints and on differentiated access to resources offered by different network structures (e.g., for job searching, accessing information, etc.). This type of research can give a good overview of the available social capital that can potentially be mobilized by the players.

In contrast, research emphasizing a transactional approach will instead stress the dynamics at play within networks (causality, formation and transformation of networks, mechanisms that activate interchange, etc.). This type of research can provide information

on the methods that permit social capital to be activated or mobilized in specific cases.

From the public policy standpoint, Lévesque explains that the two types of studies are complementary. Programs that have the support of pre-existing social capital must ensure that account is taken of both the structural and the

relational sources of that capital. On this subject, Lévesque cites the example of job training programs for social insurance recipients that focus on integrating people within a vocational structure. This is certainly a quick and effective way of expanding contacts,

but insofar as such persons are integrated as "recipients", relations will be developed on the basis of that status, and over the longer term this may not allow for the type of integration desired. This is to say that while "recipients" may develop new structural ties to people with resources they wish to access, the nature of the ties and their interactions may not in fact translate into an ability to access these resources. For in fact, developing ties is not everything: those ties also have to be built on solid foundations. In the case of welfare recipients, the instability associated with that status might be transposed directly to the tie in question. An approach that is more concerned with creating social capital would pay particular attention to exploiting the relational capacities of the recipients so as to help them form sustainable and useful ties. This example shows how interventions concerned with structure and those concerned with the type of relations can complement each other in generating social capital.

Programs that make use of social capital must take account of both structural and relational sources of that capital.

SESSION 2:

Measuring the constituent elements of social capital: what exactly are we measuring, and how do we go about it?

Social capital refers to the networks of social relations that provide access to resources (information, co-operation, etc.) and support (help, assistance, etc.). A relatively simple definition, analytically, but one

that raises a whole series of empirical considerations. For example, certain researchers will be interested in the potential resources resulting from certain types of linkages that the members of a social network can deploy for an individual. Others will ascribe more importance to the

resources actually mobilized by a person through his or her social network. Different analytical concerns will therefore result in measurement of different values of social capital. We can also explore the type of resources useful for specific issues (job entry, personal problems, etc.), measuring the way that these resources are distributed in the different population sub-groups (by age, gender, ethnic or socio-economic affiliation). Finally, we can also try to identify the type of resources linked to the type of relations/ties. For example, analytical interest is different according to whether one is interested in the strong ties/weak ties typology or the bonding/bridging/linking typology.

The second block of presentations was designed to answer the following questions:

- What are the different elements to be measured in assessing the value of a person's social capital (access to, inventories and usefulness of resources; type, quality and quantity of relations, etc.)?

- What is the public policy relevance of these different elements of assessment?
- What are the most appropriate measurement tools for this?
- What are the advantages and limitations of the different measurement tools?

The name generator makes it possible to identify strong ties and their specific nature; it is a useful tool for investigating issues such as social support.

Measuring the social capital produced by strong ties using a name generator

Peter Marsden, Professor of Sociology, Harvard University

Measurement of social networks by means of large social surveys can take various forms. Peter Marsden distinguished the general measures to be found in many major surveys from the more targeted measures modelled on the "small world" approach. The first technique is to insert in general surveys a set of questions related to the social networks of the respondents, such as the number of friends they have, frequency of contacts, etc. There is an impressive number of questions of this type. They have the advantage of being easy to incorporate in any social survey, but they are not always easy to answer, and not all of them are reliable. Furthermore, they only provide a relatively approximate idea of the composition of a person's social network.

The "small world" technique is a more precise approach to networks, where more detailed interest is taken in the persons with whom the respondent has close relations and in the nature of those particular relations. Marsden

1 Ego is the person at the centre of the web of relations and with whom the analysis is concerned.

2 The alters are the persons with whom ego relates, i.e. the members of his/her network.

explained how the General Social Survey on Social Networks in the United States has applied this investigation technique with the assistance of two tools known as the name generator and name interpreter. The first tool is used to identify who is a member of an ego's¹ network; the second uses the information thus collected to explore the details of the relations: characteristics of alters,² type of relations with them, quality of relations, ties among alters, etc. A sample standard question from a name generator would be: "Over the last six months, with whom have you discussed subjects that are important to you?" There are a number of versions of these tools that are generally adapted to the subject being studied, as well as abundant documentation on their performance.

According to Marsden, this method of measuring social networks has important analytical potential for research on strong ties, for example, for studying social support issues. But it is not an approach that emphasizes resources as such, nor the more peripheral relations that often generate social capital. In addition, the technique demands considerable survey time (about 15 minutes to study the relations between ego and three alters).

Measuring the social capital produced by weak ties using position and resource generators

Bonnie Erickson, Professor of Sociology, University of Toronto

While acknowledging the importance of studying the role of strong ties in exploring certain research topics, Bonnie Erickson came to

discuss the importance of looking at weak ties (or peripheral relations) for social capital research. As opposed to strong ties, weak ties are those that are generally formed with persons who are not members of the intimate circle of family and close friends. Weak ties are our connection to the outside world. They are important not only because of their number (up to 400 weak ties per ego, versus a dozen strong ties), but also because of their heterogeneity.

Erickson says it is a fact that individuals tend to associate with persons with whom they have the most affinities. As a result, it is the persons more remote from us, with whom we have weaker ties, who are most likely to have different types of resources that we do not.

According to Erickson, to investigate weak ties it is not necessary to do the meticulous work of inventorying

every facet of all of an individual's social relations. One must simply have a good idea of the diversity of a person's relations to be able to estimate the potential resources accessible with sufficient certainty. The *position generator* and *resource generator* are two simple survey tools for measuring heterogeneity.

The position generator utilizes a person's occupation as an indicator of the resources available to that person. The tool thus consists of a series of simple questions on the existence of "weak" ties to persons of diverse occupational horizons who in principle have access to similarly diverse resources. The selection of professions (from 15 to 30) is established on the basis of a scale of prestige reflecting *potential accessibility* of various resources.

The main question is "Do you know someone

The position generator enables the investigation of the weak ties; these represent our link to the outside world, to individuals that are socially more distant and who most likely have the resources that we do not have.

³ Bonnie Erickson kindly presented the research of Martin Van der Gaag and Tom Snijders, supported by the presentation material that they had prepared for the workshop.

in profession X?” In theory, the persons with the richest and most heterogeneous networks also have access to rich and heterogeneous social capital.

According to Erickson, this type of capital is particularly useful for resolving problems related to job searching or information sharing. Different versions of the tool can be tailored to the research interests. For example, to do a gender analysis one can add a question on the gender of the alters. Or to study changes over time, the tool can be incorporated in a panel survey.

The position generator is also a simple and quick tool (2 to 3 minutes) that can generate a lot of information useful for social capital research.

The other survey technique for investigating social capital produced by weak ties is implemented using a resource generator. This instrument, developed by a team of Dutch researchers (Van der Gaag and Snijders), was also presented by Erickson³ as a simple tool that is useful for social capital research. The technique is to question respondents directly about the resources to which they have access within their broad network. The main question is in the following form: “Do you know someone who can potentially allow you access to resources of type X?”

The tool is relatively flexible since the selection of resources can cover a wide spectrum of issues: prestige and knowledge resources, information resources, skills and competencies resources, social support resources. Furthermore, it is supported by a concept of *probable accessibility* of resources, assuming that the weak ties to the persons who have those

resources are nonetheless “strong” enough that the respondent knows the names of those persons and is occasionally in touch with them, at least on a friendly basis. In thus

specifying the level of intensity of the tie, the resource generator is sure to identify only “mobilizable” ties, that is, ties with alters who would probably agree to offer ego the resources available to them. The resource generator requires more survey time than the position generator, but has the advantage of allowing more intensive investigation of a wider variety of issues.

An inventory of the number and types of social network ties is a way to access the network resources: the more extensive a person's network, the more diverse and accessible the potential supply of resources.

Measuring social capital by studying network size, diversity and density

Jeff Boase, Ph.D. candidate, Department of Sociology, University of Toronto

The three tools presented above make it possible to estimate social capital by means of strong ties (name generator), weaker ties (position generator) and the resources that can potentially be mobilized by those ties (resource generator). Jeff Boase presented a simple survey tool that estimates social capital by means of more general characteristics of the social network, namely size, diversity and density. According to this approach, the more extensive a person's network, the more diverse and accessible the potential supply of resources. Redundancy of supply for a specific resource implies that demand is better distributed among persons who can potentially supply the resource.

The technique presented by the researcher consists in a set of simple questions developed by McCarty and his collaborators, which allow

respondents to inventory their social network based on the number of ties maintained by type (very close, somewhat close). To facilitate the inventory by the respondent, the questionnaire suggests some categories of ties (immediate family, other relatives, neighbours, work, social group, etc.). For very close ties, the main question takes this form: “Let’s start with the people you feel VERY close to, which might include those you discuss important matters with, regularly keep in touch with, or are there for you when you need help... how many are: a) members of your immediate family; b) other relatives; c) neighbours...” etc. To make the inventory easier, respondents can be asked to write down the names of the persons they list. They can refer to their list of names in subsequent questions. The questions on diversity and density that complete the tool are also organized according to type of ties. For the diversity of very close ties, for example, questions can be asked about the gender or ethnic origin of alters. The question will take this form: “Thinking of the people you feel very close to, how many of them are: a) of the same ethnicity as you; b) the same gender as you; c) etc.” As for density of the network, this is measured by

asking questions about the proportion of persons in the network who know one other, maintaining the distinction between strong ties and weak(er) ties.

Strengths and limitations of instruments of analysis of social networks for measuring social capital

Group discussion

The interest of measuring social capital using the survey techniques presented lies in their relative simplicity. All the approaches estimate the resources potentially mobilizable by members of a social network from a general perspective, i.e., by associating the characteristics of the networks with overall “inventories” of social capital. However, most researchers agree that such instruments are less useful for illuminating specific problem in specific situations, that is particular issues that require more intensive exploration not only of the quantity of social capital available but also of its nature and conditions of use. It is possible, however, to adapt and/or combine the generators to or with other sets of questions that get at more specific interactions.

SESSION 3:

Measuring social capital at the community level

There is considerable exploration of whether it is possible to measure social capital at the community level. For instance, instead of mobilizing the social capital derived from individuals' social networks, one can explore the possibilities/capacities of these individuals to exploit resources produced within groups or organizations for purposes of dealing with adversity. Conversely, one can investigate the extent to which communities can rely on the social capital of their members to revitalize themselves or ensure their prosperity.

The third block of presentations was designed to answer the following questions:

- How is this “collective” share of social capital to be measured?
- What are the most appropriate levels of analysis for evaluating collective social capital (region, community, neighbourhood)?
- Can communities be analyzed as “networks of networks”? If so, are measurement tools based on network analysis relevant at this scale?
- What are the limits of aggregation of individual social capital for estimating collective social capital?
- Does context have specific effects on production and use of the social capital generated by social networks? If so, how are those effects to be measured?

Measuring the relation between community resilience and access to social capital both within and outside the community

Ralph Matthews, Professor of Sociology, University of British Columbia and McMaster University.

A community's level of “resilience” depends on the residents' ability to mobilize social networks to access certain resources.

As part of the Resilient Communities Project he is directing on the west coast of British Columbia, Professor Matthews has become interested in the relationship between coastal communities' social capital and their socio-

economic development. More specifically, his research is an attempt to determine whether networks of social relations operating within and between the communities can provide a buffer to economic crisis and help them adjust to change. The underlying hypothesis is that a community's level of “resilience” depends on the residents' ability to mobilize social networks to access certain resources.

The social capital of a community may be associated with networks that exist inside the community or with networks that bridge to members of other communities.

Methodologically, the task of the Matthews team was to measure access to social capital by individual members of the communities observed. The research is supported by a questionnaire survey utilizing a position generator and by in-depth interviews of a

sample of households and stakeholders in the communities studied. The qualitative portion of the research was designed to complement

the information obtained from the position generator so as to document the *processes* whereby networks were mobilized and resources exchanged.

To measure access to social capital, Matthews explained how he had adapted the position generator to include certain employment categories characteristic of the region studied, related in particular to the strong Aboriginal presence in these communities. The instrument was also modified to take account of weak ties and strong ties, and to distinguish whether these ties existed within the communities or served as a bridge to members of other communities. According to Matthews, employing the position generator in this way makes it possible to differentiate the intensity of relations affording access to “rich” versus “poor” social capital, and according to whether that capital came from inside or outside the community. The analysis is the richer for studying these outcomes in conjunction with other survey data related to social capital, such as participation in associative activities or level of trust. By aggregating the individual results thus obtained, the researcher hopes to identify the social capital structure in each of the communities, to which he will then associate the qualitative data on processes of producing and utilizing resources in those communities. Once this multi-phase analysis has been completed, he plans to draw conclusions on the relationship between the level of resilience of these west coast communities and their access to social capital.

Measuring the level of social support in rural communities

Janice Keefe, Associate Professor and Canada Research Chair in Aging and Caregiving Policy, Mount Saint Vincent University

Janice Keefe came to discuss a method of measuring a specific form of social capital: the social support for seniors in rural communities. In the context of a vast research project on the aging of the population, the concerns

of the research team associated with Professor Keefe included that of understanding and identifying the characteristics of the communities that could be described as “supportive”, i.e., communities characterized by a strong stock of social support.

Methodologically, the community as a unit of analysis was

studied by aggregating the individual characteristics of its members. For example, to create a typology of communities based on the level of social support for seniors, the researchers used the number of unpaid hours that the residents of each community devoted to caring for a senior during a reference year (this question appeared in the 2001 census). The communities studied were differentiated by three levels of social support (high, moderate and low), which were associated with certain geographic, socio-economic and demographic characteristics (the independent variables) derived from proportions (% of women, % of longstanding community residents, % of seniors, etc.)

According to Keefe, this method of using statistics can give one a true appreciation of the community as a unit of analysis and allow for

An appreciation of the community as a unit of analysis allows for study of its distinctive characteristics, particularly in terms of social resources and support.

analysis of its distinctive characteristics, particularly in terms of what they say about social support. Like other social networks experts, however, she cautions against the limitations of this sort of approach, which does not take into account the specific dynamics of creation and mobilization of social resources. Keefe's team will investigate whether the social support a person receives can be a form of social credit that is built up over time. For a better understanding of these specific dynamics, further stages of analysis will complement the study of the supportiveness of the communities. Phase 2 of the study calls for a survey of a sample of seniors to examine the role of specific factors related to social support, particularly social networks and types of social support. A third phase consisting of case studies will conclude the project, providing a clearer understanding of how the socio-spatial context affects the health and independence of seniors living in different types of rural communities.

Measuring the capacity of communities to produce social capital

Bill Reimer, Professor of Sociology, Concordia University

As part of a vast research project on the new rural economy, Bill Reimer became involved in exploring the role of social capital in the revitalization of communities in decline. Instead of employing the "strong ties/weak ties" typology, Reimer distinguishes four overlapping systems of social relations that can potentially produce social capital: market relations, bureaucratic relations, associative relations and communal relations. The underlying hypothesis is that access to social capital depends on the ability of individuals to co-ordinate the resources deriving from these different systems of relations.

From an analytical perspective, it is important to distinguish the potentially available social capital from the social capital actually mobilized.

The analytical distinction between potentially *available* social capital and used or *mobilized* social capital is another interesting aspect of the researcher's approach. According to Reimer, the collective share of the supply of social capital can be measured by studying the presence in a community of collective institutions – organizations, associations,

social groups or networks. The type of social capital on offer will therefore vary with the relational systems that predominate in each type of institution. For example, a government organization is a manifestation of bureaucratic social capital. This typology makes it possible to document the way that different commu-

nities co-ordinate the supply of social capital in different economic situations, e.g., in periods of decline or revitalization. Supply could be dominated by certain institutions that are primarily based on one type of relation (e.g., bureaucratic), something that automatically entails certain considerations as to the rules whereby this capital is to be mobilized by the stakeholders.

As for the collective use of social capital, Reimer recommends that it be measured at the household level and then aggregated to the community level. In his research project, Reimer measures use of social capital by means of a household survey, distinguishing the source of the resources mobilized by individuals according to the typology of the relational systems. Separate measurement of the availability and use of social capital in a given community makes it possible to identify and study situations where certain forms of social capital are available but not used, thus shedding light on certain research questions concerned with the more complex dynamics that underlie community development.

SESSION 4:

Measuring the cause-effect link between social capital and socio-economic outcomes

We now have many important data sources that demonstrate correlations between forms of social capital and economic outcomes. However, we often know very little about the causal directions of these relationships. For example, we may find that there are many diverse social networks flourishing in prosperous communities. Is it the dynamics of the social networks that allows the communities to prosper, or is it the community prosperity that allow the diverse networks to flourish? Or, indeed, are there other mediating factors at work?

The fourth block of presentations was designed to answer the following questions:

- How do we assess the specific impact of social capital on individual and collective outcomes?
- And how do we evaluate the specific impact of individual outcomes on social capital?
- What are the most effective empirical approaches and tools for measuring these complex dynamics?

Measuring the influence of social capital on individual and collective outcomes through experimental research: example of the CEIP

David Gyarmati & Darrell Kyte, Social Research and Demonstration Corporation

The Community Employment Innovation Project (CEIP) offered the researchers a unique opportunity to study the effect of public intervention on the creation of social capital, as well as the influence of the social capital thus created on individual outcomes (employability

and quality of life of the participants) and collective outcomes (capacity of local communities). The CEIP is a long-term research and demonstration project designed to evaluate the performance of a new economic integration program that consists in offering employment insurance and income assistance recipients a “community-based” wage guaranteed for three years (instead of benefits) in exchange for

their participation in various local projects. The projects are set up by the communities themselves (13 communities took part in the study). In addition to offering the chance to acquire work experience, the CEIP allows the participants to enrich their social capital by broadening and strengthening their network of social relations. To the local

communities it offers a work force, financial resources and professional support to ensure the activities are viable.

Darrell Kyte explained that, methodologically, the strategy was deployed differently at the individual and community levels. Individual outcomes were evaluated by means of qualitative interviews of participants and focus groups. A resource generator and other questions suited to network analysis were used to conduct the study of the social capital of CEIP participants. The resource generator was adapted so as to identify the presence of resources relevant to the desired labour market outcomes, namely: help finding a job, specialized advice, emotional support and help with household activities. The questionnaire also contained a number of questions on the three key dimensions of social networks: size,

The prospective nature of a study makes it possible to define the causal direction between an intervention, the creation of social capital and the individual and collective outcomes.

density and heterogeneity. Community outcomes were assessed by means of audits of the vitality of community organizations and interviews with community informants.

David Gyarmati explained that analysis of the dynamic between the CEIP, formation of social capital and outcomes was made possible thanks to the prospective nature of the research. In studying the configuration of the networks of experimental groups before and after the Project and comparing with the control groups, the researchers managed to isolate the mediating effect of the networks on the employability of the participants. The same approach was applied to evaluate the influence of social capital on the vitality of the local organizations in each community.

The role of dynamic variables, retrospective studies and adapted research plans in measuring the influence of social capital

*Dietlind Stolle, Assistant Professor,
Department of political science,
McGill University*

According to Dietlind Stolle, the advancement of research on social capital must be supported by the development of a number of tools that are able to take better account of: 1) causality (better differentiation of the causes from the effects of social capital); 2) comparisons between different social groups (creation of indicators of social capital); and 3) changes over time (creation of time series).

On the issue of causality, Stolle stressed the importance of better documenting a number of contextual factors, for it is on the basis of context that the conditions for deployment of social exchange are created. Whether at the level of the dynamics of neighbourhoods,

associations, social networks, families or the workplace, it is important either to sample the respondents on the basis of these particular aspects or to at least collect data documenting them, so that they can be analyzed as independent variables. In some cases, it would even be helpful to consider associations or groups as units of analysis, in order to complement the analysis of social capital with the organizational viewpoint.

A simple way of addressing the causality issue is to introduce dynamic variables in the survey instruments.

Another simple way of addressing the causality issue is to introduce dynamic variables in the survey instruments, that is, variables capable of offering an indication as to the significance of the relationship between social capital and the out-

comes measured. The introduction of questions for tracing the sequence of past events (retrospective questions) or questions that provide an idea of the duration of the events can be an alternative to more complex and expensive longitudinal surveys. For example, to better understand the genesis of a person's social abilities, Stolle cites the interest of questions that investigate the duration of membership in a given group, length of residence in a given neighbourhood, or the circumstances that allowed a person to create ties with given members of his or her network. Stolle said that panel research is obviously the most rigorous method of studying causality, but combining other techniques can also prove very effective. Finally, she mentioned the importance of quasi-experimental designs where the research activity commences right from the initial phase. To conclude, Stolle emphasized the importance of incorporating data on attitudes, and specifically on trust and reciprocity, for these are dimensions of social capital that are just as fundamental as the networks themselves.

The interest of an integrated longitudinal survey for measuring the influence of social capital: example of the Socioeconomic and Health Integrated Longitudinal Survey

Paul Bernard, Professor of Sociology, Université de Montréal, and Johanne Charbonneau, Research Professor, INRS urbanisation-culture-société (Montreal)

The proposed Socioeconomic and Health Integrated Longitudinal Survey (SHILS), as presented by Paul Bernard and Johanne Charbonneau, shares certain points in common with the British Panel Survey. It is a longitudinal survey vehicle that covers a range of issues in the fields of health, education, family life and the labour market, thus making it possible to study the interrelations between the different facets of individuals' lives and how they change over time. The SHILS concept is based on a life-course approach, which can situate issues within very specific life contexts (major life transitions, disruptive events, new personal or interpersonal situations, etc.). The survey is constructed to be able to explore certain details by means of "factual modules" that are applied when respondents are reporting specific experiences.

For the study of social capital, the SHILS planned to include a module exclusively devoted to social networks, which is

constructed based on a version of the name generator that inventories ties to significant persons. This instrument is chosen in order to explore in greater depth such problems as social support, sociability and isolation. For certain survey cycles, complementary questions similar to those used with a resource generator have also been added, to explore certain themes such as emotional support, financial assistance and advisory and information resources.

Other complementary questions, for example on the frequency and quality of contacts or relational skills, offer means of better understanding certain strategies for mobilizing relational networks.

In terms of analytical potential, the longitudinal nature

of the survey will allow us to track the changing composition of social networks over time and understand how they are transformed with successive events in the life cycle of individuals. For research on social capital, the main interest of such a survey lies in the possibility of enhancing knowledge of the conditions of access to the resources produced by networks based on specific situations and contexts. It also affords a better understanding of how, when certain circumstances arise, individuals combine social capital with other types of resources (personal, community, institutional) to achieve different socio-economic and health outcomes.

A life-course approach allows the study of the conditions under which social capital can be accessed, based on specific situations and contexts.

CONCLUSION:

Advantages and limitations of the main tools of measuring social capital for the development and evaluation of federal policies and programs

Comments and reflections from Doug Norris, Director General, Census and Demographic Statistics Branch, Statistics Canada

Doug Norris noted that interest in research on social capital continues to grow, even in the face of persisting ambiguities about the concept. He mentioned the contribution that can be made by analysis of recent databases closely associated with the concept that have been produced by Statistics Canada, notably the Ethnic Diversity Survey and the General Social Survey on Social Engagement. Keeping in mind that these major surveys were developed while social capital research was still in its infancy, analysts were invited to identify the analytical potential of the available data in light of recent developments in research on social capital.

Norris briefly summarized the lessons for Statistics Canada that could be drawn from the presentations heard during the day:

1. Social capital can be either approached generally or associated with specific issues. In all cases, context appears to be a key to understanding the way that social capital is deployed. In terms of measurement, Norris finds that this raises the question of the limitations of the very general surveys, which cannot satisfactorily document contextual elements so as to meet the requirements of social capital research. It would probably be more promising to consider incorporating specialized modules within thematic surveys.

Analysts are invited to identify the analytical potential of the available data in light of recent developments in social capital research.

2. Norris also questioned the relevance of investigating social capital by means of major surveys such as those produced by Statistics Canada. It may be that, at this stage, social capital research can benefit more from the flexibility of smaller-scale experimental studies.
3. The conceptualization and measurement of social capital based on a network approach represent a fairly new way of exploring this field of research. Norris admitted that Statistics Canada has not had the opportunity to consider social capital from this perspective, and at the moment does not have at its disposal measures expressly designed to document social networks. This is a subject of definite interest, but one whose sensitive nature also raises considerations that will require strict evaluation of the performance of the measurement instruments.
4. Mr. Norris also recognized the interest of better documenting social capital at the community level. It would be advisable to include in the household surveys some questions that can explore the collective dimension. The introduction of dynamic variables or retrospective questions, as suggested by Stolle, is certainly one avenue that should be further explored.
5. Social capital is not simply a dependent variable whose interest lies in its determinants. It is also a variable that explains many socio-economic and health outcomes. It is essential to include in the measurement

instruments variables that document outcomes in a more satisfactory manner. Here Norris called upon the policy designers, who are in the best position to clarify specific needs in this area.

6. Quantitative measurement instruments are of limited benefit to research on social capital. Qualitative research is essential and must be maintained in order to complement the knowledge afforded by statistics. Statistics Canada must make greater use of alternative approaches to measurement of social capital in the interest of improving its own measurement instruments.

7. Also of interest is comparative analysis of social capital at the country level. Norris mentioned that the proposal to include a specialized module on the subject in the international social survey program is still being reviewed, and that it might be appropriate to draw inspiration from it.

8. In closing, Norris reviewed some of the challenges posed by the introduction of new subjects within the major Statistics Canada surveys. Since survey space is scarce and expensive, there will have to be solid support for the more permanent incorporation

of questions on social capital. Certainly it would be helpful to replace a few existing questions on social ties, assistance or support, for example, with “revisited” questions on social networks that might afford more rigorous measurement of social capital. On the other hand, however, this would entail the interruption of time series, something that is not always desirable from the standpoint of historical comparability. Finally, the in-depth revision of the General Social Survey that Statistics Canada is preparing to undertake, based on a life-course approach, might also be an interesting opportunity to introduce a few questions on social networks and social capital.

It will be important to better document social capital at the community level.

Comments and reflections from Derek Hum, Professor, Faculty of Economics, University of Manitoba

Derek Hum’s thoughts related to certain questions raised in the workshop regarding the strengths and weaknesses of the suggested methods of measuring social capital, and in particular their relevance to public policy. The complete version of Professor Hum’s commentary follows.

MEASURING SOCIAL CAPITAL FOR PUBLIC POLICY: COMMENTS AND REFLECTIONS

Derek Hum

Introduction

The Policy Research Initiative (PRI) has been engaged in explorations of the notion of social capital and its potential to assist public policy. Following a series of consultation activities with government as well as the academic research community, PRI has narrowed its focus on an analytic framework that emphasizes a network approach to understanding social capital, deeming this strategy to be most amenable and helpful to policy development and delivery organizations. At the same time, the directions pursued by researchers in their many different emphasis and interests in social networks do not often transfer to immediate usefulness to specific policy requirements. The measures developed by academic researchers from time to time to study particular questions, and in different countries and institutional contexts, and employing various data sets and investigative techniques are often not readily applicable to policy purposes. This state of affairs gives rise to the question of how best to measure social networks for particular policy purposes. To that end, a workshop of policy professionals and academic experts on the measurement of social networks was convened (June, 2004) in which researchers studying social networks reported on their different measurement approaches, all the while emphasizing the particular focus of their investigative interest and, perhaps, more important, the data at hand or available in Canada.

The remarks that follow represent a selective summary and synthesis of the oral presentations made (or at least heard by me) by the research experts as they described their different approaches and experience with measuring

social networks, most of it having to do with Canadian data and applications. The summary, then, is based upon my understanding of their spoken comments rather than any subsequent written text produced. As well, my remarks attempt to reflect the understanding reached through subsequent discussion among the participants at the workshop.

The synthesis comments reflect my personal emphasis, presented without attribution to individual speakers, in my charge as a workshop discussant and commentator. Finally, I attempt to relate the approaches and difficulties of measuring social networks to what I perceive to be possibly fruitful avenues for public policy design, delivery and program evaluation – issues that were less drawn together due to time pressures on the participants at the workshop.

In sum, what follows represent discussant remarks in response to spoken presentations by experts with experience measuring social networks. The social network approach is the one selected by PRI for considering the role and potential of the social capital paradigm for public policy concerns. The framework and emphasis is upon measurement of social networks, and I will offer some additional comments expanding on the potential for public policy purposes. To this end, the next section characterizes the social network and some of the salient attributes discussed by the workshop presenters. This is followed by a discussion of measurement approaches employed to investigate social networks. The data requirements of different measurement approaches is mentioned in general categories, and related to the type of policy questions that can be addressed. Finally, some suggestions for policy needs are

mentioned with respect to measuring social networks, and why this might be useful for program assessment and monitoring.

Characterizing the Social Network and its attributes

The notion of social capital as a network-based approach is clearly set out in a PRI draft discussion paper (PRI: Social Capital: Building on a Network-based Approach, October 2003). Additionally, the rationale and advantages for adopting a social network approach are discussed and need not be repeated here. Contrasting the network approach with the functional viewpoints associated with Coleman or Putnam, the network approach to social capital “refers to the network of social relations that provide access to resources and support” (ibid., 2). It is worthwhile quoting in full the elaboration by PRI of a social capital framework deemed appropriate for examining policy issues:

A social capital framework to support research and policy analysis uses the core network concept but is multidimensional. Depending on the particular research and policy application, social capital studies should encompass, for example, the investments that individuals and collectivities make in the establishment and maintenance of social networks, the various characteristics of the networks and transactions, the norms and institutional frameworks in which such networks operate, the resources that can be potentially accessed through participation in the networks, and the returns to those investments in the form of economic, social, and health outcomes for individuals, communities and societies. (ibid.).

The primary or primitive element to define or measure is the “tie” or “link” between two individuals (other possibilities would include

relationships between individuals and groups, or between groups), with the network conceived as the collection of all such interconnected links. Put just slightly more formally, consider two individuals, Ian (represented by i) and Jane (represented by j). The relationship (R) defining the link or tie between Ian and Jane can be conveniently represented as “ iRj ”. The set or collection of all such relationships between any pair of individuals i and j will then comprise the network to be measured, characterized and studied. The point of this formal statement is to allow a clearer distinction of measurement issues that pertain to the relationship (R) itself, and the sampling frame (all the individual i 's and j 's) that might be surveyed.

What might we wish to measure in a particular social network? What sort of relationships should we highlight? How is the social network to be characterized? These questions are rhetorical and the answers obviously depend upon context, sample selected, and most important, the issue under investigation. In the present context, the formulation has to do with particular public policies and government programs. Yet, it is possible to catalogue some of the general characteristics of networks that characterize the relationships studied by the experts that reported, and to extrapolate their applicability to specific policy issues. We do this primarily to establish a background template for discussion.

The academic studies presented in the workshop suggest that social networks may be expected to vary in a number of attributes that must be borne in mind when employing the social network approach for policy planning and assessment. We list some selected attributes of social ties or networks, in no particular order and, we repeat, without attribution.

Strength of relationship in Network

Many authors alluded to the strength or weakness of individual relationships (iRj) and, a fortiori, the strength or weakness of the network,

when conceived as the collection of all such relationships for an individual. Other metaphors such as “depth” or “breadth” or “thinness” could also be used to characterize social networks. The importance for policy studies is to recognize the appropriateness and efficacy of “strong ties” or alternatively, “weak ties” in specific contexts. For example, a policy perspective focused upon social support networks for seniors, or those with health impairments might wish to measure “strong ties” in a social network that delivers resources and support to this group. On the other hand, it is often suggested that job search and employment opportunities are best achieved through a social network characterized by “weak” ties that are numerous and diversified. In plain language: the determination and measurement of a relation R through asking a respondent:

R = “Do you know anyone who would look after you at home for a month if you were to suffer a stroke?”

implies interest in a strong tie. This is decidedly different from a relationship (say, R*) asking about a weak tie, such as:

R = “Do you know anyone who might give you a letter of reference or assist you to find a job?”

Specialized (or specific) nature of relationship in Network

The above example highlights the relevance of determining the appropriate set of relationships to measure, and that relationships are often specific or specialized. In short, people access different social networks for different purposes, and measurement of a social network presupposes some clearly articulated focus of the issue to be addressed. For example, depending whether the policy focus or program under discussion concerns seniors, labour market participants, children, immigrants, visible minorities, persons with disability, university students, specific occupation (professionals) or a particular sector (farming)

and the like, the relevant domain of interest will vary, and accordingly, the extent and boundaries of the social network of relations to be studied. The relationship (represented hereafter as “R =”) of interest may be, for example,

R = “Do you know a doctor specializing in –?”
or

R = “Do you know anyone who came to Canada in the last (five, ten ...) years from –?”

R = “Do you know someone who could translate a government form from French to Chinese for you?”

Intensity of the relationship in the Network

A relationship is also characterized by its “intensity”, or some such phrase. That is, the relationship may be one of long standing with frequent contacts, such as that among close family members. On the other hand, a relationship may be a casual acquaintance in which support and transfer of sought resources is tenuous and unreliable; e.g., persons who share only an interest in supporting the same sports team. Merely detecting a relationship’s existence is often insufficient for some policy applications, and the degree of intimacy must be gauged as to the amount of support or resources that might be forthcoming. Additionally, the qualification attached to the expected support must be measured.

R = “Do you know anyone who would lend you \$500 if you need it?”

R = “Do you know anyone who would let you live with them for three months if you lost your home?”

R = “Do you know someone who would donate an organ to you if you need it?”

Volition of relationship in the Network

Individual relationships may be voluntary or “compulsory” and the distinction can be

important in defining social network patterns. A person's ethnic affiliation and membership in a social network may not be entirely voluntary, nor is one's relationship to parents or children. Indeed, others often prescribe social networks. Parents or guardians determine a child's schooling, religion, certain sports and recreation activities, friends, and even acceptable marriage partners. Hence a child's social network is quasi determined, and this network influences and conditions the networks that the parents experience as well. More important, these social networks affect the set of potential future networks that these children confront in youth and possibly adult life. Whether relationships and the associated social networks result from voluntary association can be a key ingredient in understanding the operations of the social network. A person's social network at one time may well be an important determinant of their future network relations.

R = " Are you a member of (a youth gang)
(a Church) (a visible minority group)
(a union) ...?"

Symmetry and equality of relationship in Networks

There are many features of a relationship that could be ascertained in a measurement, such as symmetry, equality and transitivity. A relationship is symmetrical if iR_j implies simultaneously jR_i . It may be the case that Ian claims a relationship with Jane (such that j would lend i a large sum of money) but the reciprocal relationship does not exist (Jane does not expect to borrow money from Ian). Or the "strength" of the tie in iR_j is not the same as the jR_i relationship. Jane may be willing to shop for Ian when Ian is sick, but Ian is not willing or able to do the same for Jane in like circumstances. Finally, a social network involves more than simple relationship between two individuals, and the pattern of relationship "chains" are worthy of measurement and study. Indeed, they are often of most interest. A transitive

relationship is one in which iR_j and jR_k implies that iR_k . Transitivity need not obtain. Ian may enjoy a relationship with Jane (be willing and able to lend money to, or work with, or help with job search), and Jane may also enjoy a similar relationship with her friend Keith, but Ian may not have the same or any relationship with Keith. The key concept is the nature by which individual relationships extend throughout an inclusive social network through some "chaining" property, and this feature ultimately defines the efficacy and utility of the social network itself. It is not necessarily so that any friend (or enemy) of yours is a friend (or enemy) of mine and vice versa. Clearly, measurements must be carried out at the individual level as well as the collective (or entire network) level for complete understanding of social networks. (Relationships that satisfy symmetry and transitivity are known as equivalence relationships, and their mathematical properties well known. On the other hand, almost all relationships of interest in a social network framework are of the non-equivalent variety, and it is this very heterogeneity that is of interest.)

Relative position in Social Network

The need to encompass relationships in a social network beyond simple pairs is apparent. This requirement is in addition to any exploration of the conditions or contingencies under which the relationship itself holds. Some relationships are valid only under specific circumstances, such as emergencies, or will strain under repeated demands, and the like. This is as expected. The "relative" position in a network refers to the existence of a relationship iR_j that is interpretable only with respect to some other individual, say k . For example, suppose iR_j is a relationship that denotes that i can access the resources of j (say, borrow \$1000) but the relationship is contingent (or understood) that k has priority over i . For example, iR_j might be: (illustrative only)

R = Son (i) is allowed to borrow father's (j) car (but only if mother (k) does not need it).

R = Individual (out of province) can have access to medical care (but only if some provincial resident does not require the service).

R = Individual can be hired (but only if there exist no other qualified visible minority candidate).

The upshot of the above is simply that the entire social network is relevant for some applications, and not merely the set of relationships or links between individuals examined in isolation. However, measuring an entire social network requires, as we shall see, much more effort and resources.

The above list of attributes of social networks is neither exhaustive nor do they represent a consensus among researchers. To repeat, the list is a composite of elements discussed by the experts present at the workshop as well as my own interpretative interjections. Though incomplete, the list should give some hint of the difficulties to be encountered in measuring social networks. This is considered next.

Measuring the relationships and Social Network

We now turn attention to the methods and techniques employed by many researchers to measure social networks, confining attention to those approaches that employ some sort of survey based approach in contrast with ethnomethodological studies or narratives from field observations. With this limitation, it is perhaps useful to describe a common technique, such as the "name generator instrument". Recognizing the inadequacy of simply asking an individual to give a list of names of their "friends", the name generator instrument asks questions of specific relationships and specific contacts.

For example, as suggested by one researcher at the workshop, a question might ask:

R = "Over the past six months, can you name individuals with whom you discussed issues of personal importance to you?"

Note that the question is open-ended with respect to the number of names asked, and the subject matter deemed important. The instrument may also specify qualifiers, such as "outside the home" or "good friends you're close to" and the like. The aim is to generate a frame of names (and to follow up on the specific names, if desired). Researchers at the workshop have pointed out that the domain of the social network is egocentric and limited by the knowledge and recall of the respondent (as well as the usual limitations of all surveys), and tends to nominate "middle strength" ties, rather than the really weak or really strong ones.

With the above as background and an example, one could easily see how this instrument can, and has been, varied. The name generator could be employed as a "position generator instrument" in which individuals are asked about their relationships with persons who satisfy a "positional" criterion:

R = "Do you know (a medical specialist, a legal expert, a mason)? The position generator can give an idea of the diversity of the network of a person.

Yet a third possibility is the "resource generator".

R = "Do you know anyone who (would lend you \$5000, owns a cottage, maintains a private fishing lodge, has box seats to a sports event, has a cordless drill...)?

This approach is "resource driven" as opposed to "name driven".

All three approaches share a common measurement approach, and it might be helpful

to restate the procedure in survey research jargon. Essentially, the “generator” survey method can be likened to the first stage a “snowball” sampling technique which is typically used when there is no predetermined or available sampling frame to begin with. A particular program may have a list of its participants from administrative files to serve as a sampling frame. On the other hand, a third party investigator without access to administrative files may have to determine the relevant study group by surveying the general population with some screener question. The set of respondents (and thus, social network to be studied) is obtained by specifying a “kernel” (generator) that leads to a list of respondents from whom further information (and/or “names”) is gathered. Accordingly, the screening question of the generator (along with any qualifiers) serves the pivotal function of defining the domain boundaries of the social network as well as the eligibility threshold of participation. For example, to study social networks constituting strong (rather than weak) ties that involve access to resources the screen question generator might be:

R = “Do you know someone who would lend you money for a down payment for a house (rather than \$10.00)?”

The implicit assumption in the above example is that the amount of money sought for a loan is an indicator of the strength of the tie, with a sum of \$10 representing a weak tie. The sum typically involved in a down payment for a house is large, and would be obtained only from a person with a strong tie.

In sum, the study and measurement of social networks involving relationship between and among individuals is beset with a number of measurement difficulties. For example, the requirement to define the nature of the relationships of interest, its salient attributes for

the (policy) question at hand, and to define the domain of the social network so as to characterize it properly.

For emphasis, it is useful to restate the practice from a policy or program delivery perspective. From a sampling survey perspective, the kernel or “generator” (whether name, position, resource etc.) is used to construct the domain of the social network of interest. The generator requires a screening question to determine the respondent’s eligibility for further query, and the screen must obviously be framed with an underlying purpose of inquiry. We are assuming that there does not exist a predetermined sampling frame such as an administrative file. For example, if one is interested in the social network of elderly immigrants, a relevant screener question must be first administered to determine if the respondent is, in fact, elderly and an immigrant. Reversing this description would start the practice with determining the policy question of interest or the program to be assessed to determine the set of respondents whose network relationships are of prime interest.

A concrete example might be a social service program concerned with home care services for the elderly or persons with functional limitations. The nature of the network of interest might not concern access to financial resources so much as certain “in kind” voluntary resources such as assistance with day to day shopping, transport assistance to medical care, occasional conversation and concern, and simple monitoring of daily coping. Since these resources must be rendered by persons in close geographical proximity to the respondent, the geographical scope of the social network is also prescribed. If so, then the screen question of the generator should target these types of relationships of the social network, and the survey designed accordingly. Questions

pertaining to other types of social networks (such as pen pals in distant countries) are not of direct interest. This is an example only, but one can readily foresee that each program delivery could have a different social network of primary interest, thus making the possibility of measuring a general purpose all-encompassing social network less appealing for specific policy questions.

We make one further distinction without much discussion here. If a sample is only asked about their contacts without further follow up of the nominated contacts, this would constitute merely the “contacts list” of the set of respondents. We might, as suggested, consider this the first stage of a snowball sample. Without further investigation of the contacts of the contacts (the second round), we cannot truly characterize a “network” since the multi-linked relationships cannot be known. Therefore it would not be possible to characterize the entirety of the social network itself. Perhaps an example will help. Suppose we ask a small number (n) of respondents to “name” a small number of “contacts” (say, two contacts). If n is small relative to the study population of interest, and we do not contact the contacts named by the first round, we may not be able to detect anything of significance of the entire social network, such as its total size, density, diversity, spatial distribution etc. In sum, the distinction between merely gathering a list of peoples’ contacts, and characterizing the social network of a collective group depends upon whether the snowball sampling is truncated at the first stage or not.

The curse of data requirements

Any attempt to gauge and characterize the social network of a set of individuals is a large task. Unlike studies that can employ comprehensive data sets (such as the census), policy specific questions that pertain to target populations will typically have to rely on smaller

special surveys. The result, then, is survey data that is characterized by “small” sample size and “cross section” in nature. The limitations of this type of data are well known and need not be catalogued again.

It is appropriate, however, to point out the limitations or range of issues that are precluded from study with small cross sections. Many of the workshop experts mentioned that relationships ($R(t)$), and a fortiori, the social network, would change over time and altered circumstances. These cannot be captured with cross sectional data that can only portray the social network at a single instant. More specifically, $iR(t)j$ may alter simply with the passage of time t , as either $i(t)$ or $j(t)$ mature, or circumstances change. For example, the resources of j (who was willing to lend them to individual i at time t) may have since dwindled so that i 's expected access is no longer realistic. Or person k is no longer in a position to offer employment assistance to j since k 's set of social contacts have been transformed for some reason. Take another whimsical (?) example. The social network and “strong” ties among a set of bachelors may undergo radical transformation upon marriage. Which relationships are maintained? Abandoned? Or transformed or added to? The list of examples goes on, but the salient point is simply that cross sectional surveys cannot “track” changing or transforming social networks. But for some policy issues (such as program monitoring of outcomes of interventions, etc.), the nature of the network over time, success and failure of relationships, and the like are of fundamental interest. For example, how are the relationships of new immigrants changed over time with lengthening duration in Canada? These issues of dynamic network relationships can only be addressed with longitudinal data. For many public programs, their administrative files or case data may prove a more useful starting point for measuring network issues than an omnibus survey conducted by some third party for other purposes.

The application to public policy concerns

The concerns of the policy research and program delivery community are often different from that of the general academic community. In particular, the program delivery community is accountable for monitoring their program outcomes (and budgets) and assessing results of their interventions. The unit of analysis is often a program's target group rather than the general population. As well, the program has specific purposes, and their progress towards these ends are assisted (or hindered) by specific social networks of the affected group. This means that the study of social networks in this context is less driven by idle curiosity than the need for a specialized, specific purpose inquiry, whose results must be produced by a given deadline and within a given budget.

This characterization (with much violence to subtlety) suggest that large scale omnibus

surveys such as the GSS conducted infrequently on time schedules of Statistics Canada's choosing are less useful for particular programs and policies than would be internally designed data gathering exercises, often exploiting the program's administrative data bases for a good sampling frame. However, it is still an "art" to design the right set of questions and to interpret the findings. And it is highly unlikely that survey data can provide all the insights. The role of the intensive case study, with open-ended focus group discussion, is also important to achieve richly detailed information.

Many researchers at the workshop alluded to the value of case studies in understanding social network patterns, particularly collectivities. While these remarks have not emphasized the measurement of social capital at the group or community level, their study and measurement remains fundamentally important.

APPENDIX 1: WORKSHOP PROGRAM

Expert Workshop On The Measurement Of Social Capital For Public Policy

Session 1: Approaches to analyzing social networks and their usefulness in a public policy context

Barry Wellman	Professor of Sociology, University of Toronto
Johanne Charbonneau	Research Professor, INRS-Urbanisation, Culture et Société
Maurice Lévesque	Professor of Sociology, University of Ottawa

Session 2: Measuring the constituent elements of social capital: What exactly are we measuring, and how do we go about it?

Peter Marsden	Professor of Sociology, Harvard University
Tom Snijders*	Professor of methodology and statistics, University of Groningen
Bonnie Erickson	Professor of Sociology, University of Toronto
Jeff Boase	Doctoral candidate, University of Toronto

Session 3: Measuring social capital at the community level

Ralph Matthews	Professor of Sociology, University of British Columbia
Janice Keefe	Research Chair on Aging and Caregiving Policy, Maritime Data Centre for Aging Research & Policy Analysis, Mount Saint Vincent University
Bill Reimer	Professor of Sociology, Concordia University
Barry Wellman	Professor of Sociology, University of Toronto

Session 4: The usefulness of social capital: How do we measure its real effects?

David Gyarmati	Researchers, Social Research and Demonstration Corporation, Ottawa
Darrell Kyte	Researchers, Social Research and Demonstration Corporation, Maritimes
Dietlind Stolle	Professor of Political Science, McGill University
Paul Bernard	Sociology professor, Université de Montréal
Johanne Charbonneau	Professor-researcher at INRS-UCS

Roundtable: Elements of a toolbox for government action

Derek Hum	Professor of Sociology, University of Manitoba
Doug Norris	Director General, Statistics Canada

* Bonnie Erickson replaced Tom Snijders using the presentation material that he had prepared for the workshop.

APPENDIX 2: WORKSHOP INFORMATION

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For more information please visit our website at www.policyresearch.gc.ca and refer to the conference program. Most of the presentations are available, along with a few reference documents that were provided by the experts. They can be accessed directly from the conference program.

