Economics and Multicommunity Partnerships

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Throughout much of the rural heartland of North America, survival has re-placed development as the focus of regional economic initiatives. Over vast areas, the restructuring of agriculture and other primary industries, which supported rural economies for generations, has not been offset by alternative development. Job loss and outmigration have been accompanied by business failures, school closures, and a diminished capacity to cope with economic and social problems (Ryan et al. 1995). Improved transportation and communications technologies have made it possible for those who remain in rural areas to conduct much of their business in distant, but larger, urban centres (Stabler and Olfert 1992; Leistritz et al. 1992).

There is a general recognition that in the future a smaller and more mobile rural population will require a less dispersed infrastructure and fewer rural communities to support it. A coordinated response, concentrating rural infrastructure as well as trade, service, and future development into a smaller number of preselected centres, would undoubtedly preserve more viable communities and retain more secondary and tertiary jobs in rural regions than would an evolutionary process wherein each centre continued to struggle to retain its share of an ever diminishing requirement for community services.

Senior governments have had to tread lightly in orchestrating a planned approach to rural restructuring and development, however, because of concern with the potential political backlash associated with picking winners. Their initiatives to this time have included:

- enabling legislation that would facilitate cooperation;
- limited incentive programs which encouraged formation of multicommunity regional economic development organizations; and,
- occasionally taking a lead role in infrastructure consolidation in those jurisdictions where rural infrastructure is financed in whole or in part by senior governments.

The objective of the first two approaches is to get the local population involved in defining and implementing strategies that would facilitate adjustment to a changing economic environment. To date, however, local participation has generally not produced collaborative strategies. The more common response has been to devise ways of sharing more or less equitably whatever benefits accrue from participating in senior government programs.

The purpose of this paper is to identify the incentives for, and constraints to, (predominantly rural) multicommunity partnerships from an economic perspective. As a
discipline, economics has had little to say on this topic. Thus, the approach taken is to identify those concepts from economic theory that provide justification for, as well as disincentives to, multicommunity development or restructuring initiatives. The final section returns to the policy framework mentioned above.

**Economic Theory**

As previously noted, mainstream economic theory has had little to say directly about multicommunity partnerships. In general, the focus of economic theory has been either on private enterprise or on how to influence the performance of the national, regional, or local economy. Very little effort has been devoted to the study of the economics of alternative structural or organizational forms that a government might choose or to relationships among governments.

One way to classify mainstream economic theory is by the topics it deals with. A breakdown of topics is offered in Table 1.

Specialized fields use the elements of mainstream theory to focus on topics of particular interest to an individual industry (such as agriculture) or to a concentration of heterogenous activities at a single location (as with urban economics).

Most mainstream economic theory is spatial. Spatial relationships are either considered to be unimportant or assumed away to focus on what is considered to be a more important variable for the topic being examined (time, for example).

**Table 1 A Classification of Economic Theory by Topics**

**Spatial Economic Theory**

Location theory departs from mainstream economic theory by explicitly according spatial relationships a primary role. Its focus is on the factors that influence the location of individual production units, on agglomeration economies (which encourage individual units to choose a common location), and on urban and regional spatial structures. While urban spatial structure deals with intra-urban land use patterns, one variant of regional spatial structure -- central place theory -- attempts to provide an economic-based explanation for the size, spacing, and functional specialization of groups of communities within a region's trade centre system. Central place theory focuses on the commercial relationships among communities. Although traditional central place models are static (general equilibrium) in nature, they can be used in a comparative static context to help interpret alterations in trade centre systems occurring through time due to changes in consumer preferences or to improvements in production, transportation, communications, and distribution technologies.

As a received theory, the central place paradigm is probably the single most useful framework for interpreting economic interactions among communities. By providing an
effective framework for analyzing the evolving relationships among small communities, communities and their hinterlands, and small and large centres, this theory can assist in developing an assessment of the role that centres of various sizes and functional specializations are likely to play in the future. This assessment can in turn help identify circumstances in which collaboration among governments may assist in stabilizing or enhancing the economic viability of participating communities. It can also be helpful to identify circumstances in which collaboration may be unnecessary (for example, many of the benefits may be captured by collaboration between private organizations or municipal government departments within a large urban centre) or unlikely to produce results (in the case of communities that have deteriorated to the point where a reversal of their fortunes is extremely unlikely).

**TABLE 2 Community Characteristics, 1990, and Change in Trade, Service, and Manufacturing Outlets, Saskatchewan, 1961-1990**

**Empirical Central Place Studies**

Several extensive studies in the Canadian Prairie Provinces during the past few years have provided insight into the way in which rural trade centre systems are participating in and responding to the current process of industrial restructuring. A summary of some pertinent observations, illustrated with examples from Saskatchewan, are shown in Tables 2 and 3.

Table 2 outlines the grouping of 598 Saskatchewan communities into their 1990 functional classifications. Over the 1961-1990 period, only about 10 percent of these centres gained in population and commercial status (Stabler et al. 1992). The remainder either declined in functional classification or (and) lost population.

In Table 3, the radii of the retail and labour market areas are shown for each level of centre as recorded in the early 1990s. A comparison with less comprehensive studies of retail market areas in the late 1950s and in the early 1970s suggests that retail market areas of Minimum and Full Convenience Centres have contracted, while the market areas of the top four functional classifications have expanded (Stabler and Olfert 1992).

**TABLE 3 Saskatchewan Community Characteristics, 1991**

A detailed comparison of labour market areas between 1981 and 1991 indicates that Saskatchewan's two metropolitan centres gained substantially in importance due to the number of jobs provided for nonresident commuters as well as for their own (noncommuting) residents. Secondary Wholesale-Retail and Complete Shopping Centres also gained by these measures between 1981 and 1991. Communities in all other functional classifications experienced decline as job numbers fell for both commuters and resident noncommuters (Stabler and Olfert 1996).

The community level income multipliers reveal a pattern consistent with the other indicators in Table 2: the larger the community, the higher the multiplier (Olfert and
When taken altogether, the Saskatchewan data suggest that communities with populations of 5,000 and larger exhibit more signs of continued viability than centres that are below this number.

Several in-depth studies of the trade centre systems of Alberta, Manitoba, and several Northern Great Plains states have also been conducted during the past several years. While not covering the number of topics studied in detail for Saskatchewan, these studies nevertheless identify changes in trade centre patterns similar enough to those observed for Saskatchewan to suggest that the experience is common across the Northern Great Plains (Anding et al. 1990; Bangsund et al. 1991; Albrecht 1993; Fuguitt 1994).

**Economic Incentives for Multicommunity Partnerships**

**Economies of Scale**

Probably the most common economic incentive that will induce (and provide justification for) smaller communities to cooperate in a joint endeavour is the cost savings associated with, for example, sharing a larger facility or participating in a larger activity than what any single centre could justify for its own use.

Economies of scale occur when, with a given increase in all inputs, output increases more than proportionately. For example, if output is some function, \( f(x_1, x_2) \), of two inputs, \( x_1 \) and \( x_2 \), increasing returns to scale occur when the percentage increase in output exceeds the percentage increase in inputs:

\[
\frac{\Delta f}{\Delta x} > \frac{\Delta x}{\Delta x}
\]

A production process that is characterized by increasing returns will experience declining average costs and thus provide the incentive to build and use larger facilities when the demand for the product or service justifies such an increase.

While increasing returns are common in many production processes, it is unusual for a process to be characterized by increasing returns over its entire range. Constant returns are usually observed after some finite size. Then, when output is increased, the percentage increase in output equals the percentage change in inputs:

\[
tf(x_1, x_2) = f(x_1, x_2)
\]

A long run average cost curve, and its associated short run average cost curves, are shown in Figure 1. On this diagram, increasing returns to scale characterize the underlying production function up to output \( x_3 \). Thereafter, decreasing returns:
\[ f(tx_x, tx_z) < tf(x_1, x_z) \quad (3) \]

characterize the underlying production function.

Figure 1 also illustrates that the actual plant has to be operated at or near its design capacity in order to realize the advantages of economies of scale. For example, a plant designed for output \( x_3 \) would result in higher average costs than a smaller plant if it were used to produce only output \( x_2 \).

Economies of scale have been illustrated but perhaps more important for the task at hand is a discussion of why they occur. Figure 2, adapted from Koutsoyiannis (1979), identifies some possible reasons why average cost could decline at higher volumes of production. The diagram is divided into real which relate to the physical production process, and pecuniary economies, which are associated with economies of large scale transactions or monopsonistic power.

**FIGURE 1 Short Run and Long Run Cost Curves**

An examination of the various components in Figure 2 readily identifies possible economies that communities could take advantage of through some form of partnership. Economies of scale are large enough in many public utility-type production processes to justify sharing the ownership of a single facility that would serve two or more communities. In addition, pecuniary economies may be sufficiently important to justify joint purchase arrangements among several communities.

Results of a survey recently conducted among Saskatchewan communities cooperating in the delivery of services identify services currently being voluntarily delivered on an intermunicipal basis, areas in which future intermunicipal delivery is anticipated, and benefits associated with intermunicipal delivery.

Public services currently being delivered and those anticipated for future intermunicipal delivery are recorded in Figure 3. In Figure 4, the benefits of intermunicipal delivery are cited (Saskatchewan 1993).

**FIGURE 2 Bases for Economies of Scale**

**FIGURE 3 Present and Possible Future Intermunicipal Service Delivery**

Many of the public services currently being delivered on a cooperative basis, as well as several of those on the list for future intermunicipal delivery, would likely be characterized by scale economies. The cited benefits are consistent with the supposition of scale economies, with reduced costs being the most frequently identified benefit. Many of the other entries are also consistent with an economies-of-scale interpretation. For
example, shared facilities, better coordination, higher quality services, and more services could, indirectly, imply scale economies.

**FIGURE 4 Benefits of Intermunicipal Service Delivery**

Economies of Scope

The economic literature on production and costs also identifies economies of scope as a reason for performing two operations, which technically could stand alone, on a joint basis (Baumol 1977).

Loosely, economies of scope occur when the costs of producing any two outputs separately are greater than the costs of producing any weighted average of those two outputs together.

Formally:

\[ c[y^a + (1-k)y^b] < [kc(y^a) + (1-k)c(y^b)] \]  \( (4) \)

**FIGURE 5 Economies of Scope**

In Figure 5, the diagram shows a total cost surface that exhibits economies of scope. The outer rays 0-ca, 0-cb show total costs associated with producing either output a or output b separately. The interior portion of the surface indicates the total cost of jointly producing various combinations of the two outputs. To illustrate, point ca1 identifies the total cost associated with producing quantity ya1 of product a by a stand-alone process. Similarly, the point cb1 indicates the stand-alone cost of producing yb1 of product b. Joint production results in total cost ca1b1 which is, of course, greater than either ca1 or cb1 but is less than the sum of ca1 + cb1. Economies of scope can often be attributed to the sharing of fixed assets (Baumol et al. 1982).2

It seems plausible that various types of intermunicipal partnerships could be justified based upon some combination of scale and scope economies: a regional hospital, for example, might be justified on the basis of scale economies. Perhaps the addition of an air ambulance/conventional ambulance service could be justified through scope considerations. The joint provision of fire and police services might exhibit economies of scope. In a final example, economic development and regional planning offices might be combined because of economies of scope. Grosskopf and Yaisawarng (1990), in an interesting exploratory analysis, find indications of scope economies which are attributable to the sharing of fixed assets in the provision of fire and police services.

**Transaction Costs**

Transaction cost economics recognizes that as numbers become small, as informational complexity increases, and as outcomes become more uncertain, the (per unit) costs of
transacting increase. Further, as the nature of the transaction becomes increasingly idiosyncratic, the possibility of rent-seeking behaviour appears. Accordingly, the focus of this literature is on the efficiency of alternative contracting modes. A further distinction is that, while conventional micro-theory devotes much of its attention to final markets, the subject of transaction cost economics is more often intermediate markets (Williamson 1975, 1985; Dietrich 1994).

Transactions may occur, at one extreme, on a completely arms-length basis. This method prevails, essentially, when large numbers of atomistic buyers and sellers are present. At the other extreme, conditions (described above) may encourage the substitution of intra-firm transactions (vertical integration) for transacting through the market. Circumstances do not always dictate one of the extremes, however, and numerous intermediate forms exist. In situations that require sequential decision making, policing of responsibilities, or a framework for dispute resolution, but that are project- or task-specific or otherwise do not justify single ownership, alternative arrangements may suffice.

The term quasi-integration is used to describe a variety of alternative modes that lie between the market and complete internalization. Networking, strategic alliances, franchising, subcontracting, and joint ventures are terms used to more specifically classify arrangements that are modifications of market exchange. That is, they facilitate planning and coordination but fall short of vertical integration.

Communities frequently resort, individually, to the market to satisfy anonymous short-run requirements (for standard products or services). Communities also enter routinely into agreements that represent modifications to market exchange. Contracts with unions for employee services, for example, represent a common, formal departure from reliance upon either spot markets or contracts with each individual. Finally, community ownership of power, water, and telephone systems represents defacto vertical integration. Individually, then, communities have traditionally entered into the full spectrum of transactions arrangements.

When two or more communities enter into partnerships to create infrastructure or to deliver a service, they effect a form of strategic alliance or enter into an agreement akin to a joint venture. Economies in production may be the driving force leading to such partnerships. Governance may be achieved, on the one hand, through contracts between entities that remain separate and distinct. On the other hand, a new entity may be created -- a regional waste disposal authority, a regional police force, a regional economic development authori-
ty -- and the governance structure itself is modified. In the latter example, additional gains may be achieved because the new governance structure is more appropriate (and therefore more efficient) for the tasks assigned to it and transaction costs may be reduced when collective exchange is substituted for individual exchange (Jansen 1994).

Transaction costs may also be reduced through creating a more focused interface between small communities and the rest of the world. By definition, rural communities are
relatively isolated places that only sporadically interact in a complex manner with the rest of the world. Being able to communicate effectively and negotiate skilfully, however, can be a major determinant of their efficiency. Contract negotiation with suppliers, accessing government programs (or even knowing about them), information management, interpreting and dealing with new regulations (such as those pertaining to environmental protection), and personnel management are some of the activities that require sophisticated technical knowledge and negotiating skills. Since such expertise is not required on a day-to-day basis by each and every rural community, it is often too expensive for individual centres to retain staff with such qualifications. A regional planning office, however, serving several communities, with a mandate to perform these types of services, could be expected to selectively reduce transaction costs for each member community.

**Constraints to Multicommmunity Partnerships**

The preceding discussion of economies of scale, scope, and transaction costs provides a set of efficiency-based reasons why communities could benefit from cooperative or collaborative behaviour. Costs and (potentially) taxes are lower when some public initiatives are undertaken on an intermunicipal basis. If these economies are substantial, it might at first be expected that some form of multicommunity partnership would be the norm rather than selectively utilized.

Further reflection suggests that there are at least two other considerations, other than potential savings, that in combination are likely to have as great a bearing on whether a community voluntarily enters into an alliance with others. The first is the characteristics of the investment required for the production of the good or service. Some investments make a differential contribution to the economic viability of the community in which they are situated, vis à vis other nearby communities, while others are less site-specific in the way their benefits are conveyed. Partnering is more likely in those instances where the investment enhances the viability of all the partners more or less equally (or in proportion to their contribution). The second is the perceived threat to the community's viability that is associated with the relinquishment of the portion of its autonomy necessary to form certain types of partnerships. The less threatening the proposed partnership is perceived to be, the more attractive are the potential cost savings. The greater the perceived threat, on the other hand, the less any potential cost savings matter.

**Which Investments?**

Most publicly provided goods and services require an investment that either produces a product or creates infrastructure that facilitates the delivery of a service. What is at issue is whether the investment conveys differential, site-specific benefits to the jurisdiction within which it is situated.

The real extent to which advantages of public investments are distributed spans a spectrum from those that convey benefits widely and more or less equally to those that are very site-specific and convey differential benefits upon the community in which they
are situated. A regional waste disposal facility, situated in a rural area that services several communities and one or more counties, is an example of a public facility that conveys its benefits more or less equally among all supporting jurisdictions. At the other extreme is a regional hospital which, while serving the area's population, creates significant employment in the host community and may also attract additional public and private investment and employment. In general, public investments may generate benefits ranging from those that are widely and equally distributed to those locally and unequally distributed. Similarly, employment and linkage effects may run from trivial to substantial.

When the choice is between an inferior, higher cost, and individually provided service (or perhaps no service at all) and a lower cost, higher quality regional service, cooperation is more likely to be supported by residents as well as local administrators. Investments viewed as not necessarily contributing significantly or differentially to a particular community's viability, shared proportionately among all communities, or not situated in a community at all are good candidates for multicommunity cooperation. Libraries and offices of recreation or emergency planning boards fall into the first category, common water supply or sewer system into the second, and landfill sites or regional parks into the third. In the context of game theory, member communities are participating in a positive-sum game -- a win-win situation. Benefits of lower cost and higher quality services are shared uniformly among all participating communities.

In circumstances where the investment may be viewed as contributing to the differential viability of the host community, however, partnerships may be less easily arranged, even though cost considerations may suggest a joint approach. High schools, regional colleges, hospitals, and retirement homes, for example, represent types of infrastructure that produce significant local employment and may also induce additional public and private sector development. The potential for rivalry among communities for such facilities is much greater. But, since the participating communities have some control over where most regional infrastructure will be situated, agreement to share future public facilities among participants may help to facilitate agreement.

Voluntary partnerships for the pursuit of private sector economic development are less easily achieved. Most new economic activity is viewed as community building. The community that acquires the new factory, mill, or retail outlet will likely experience a boost in local employment and retail activity; its vacancy rates will decline and its tax base will expand. Further, it may become more attractive as a site for future private sector development -- its advantage may become cumulative. Participation in the effort to attract private sector development may, if successful, have a zero-sum outcome. What the successful community gains may be seen to be, and may actually be, at the expense of those centres that did not get the private sector activity. Unlike the case of site-specific infrastructure, which also contributes to differential viability, control over the siting of the initial and any subsequent private sector development does not rest with the participating communities. In the final analysis, the private sector firm will make the site selection. Thus, some town councils may fear that their dividend will not be proportional to the effort or money expended in a multicommunity initiative to foster economic development, even though a jointly funded economic development office may be less
expensive to operate than individual offices. Politically, it may even be more acceptable in the present context to lose out in an independently financed competitive struggle than to participate in the financing of one's own downfall. (8)

Which Partnerships?

Potential partners may also be evaluated in a game-theoretic context. Positive-sum partnerships may be more easily arranged among political entities that perceive themselves as noncompetitive over a range of activities and/or responsibilities (McKee 1994). Different levels of government represent political jurisdictions that have some unique responsibilities not shared by other levels. In addition, much infrastructure, as well as many private sector economic activities, readily segregate into rural-based or community-based categories.

Partnerships between a community and the county in which it is situated, involving either public or private investments that would benefit both but which one entity would have a low probability of hosting, could be perceived as a nonthreatening alliance (see Wilmot 1993 for a case study of a successful community -- county partnership). A second type of nonthreatening alliance might involve partners that are functionally related but of vastly different economic potential. A partnership between a major urban centre and its adjacent satellite communities is representative.

Potential partnerships among communities that clearly see themselves as competitors -- for retail dominance, for regional infrastructure, for economic development -- are more likely to be viewed by local administrators (and some residents) as representing the possibility of a zero-sum outcome. One situation in which strategic concerns are heightened is that of a rural region with a stagnant or declining population served by several once-viable, but now threatened, communities (Leistritz et al. 1992). An acute awareness that the regional economy will in the future require fewer centres to serve its inhabitants increases the apprehension that the community that gains an advantage enhances its prospects for survival, while at the same time diminishing its rivals' prospects. (9)

### TABLE 4 Prospects for Voluntary Multicommunity Partnerships

Table 4 is intended to define the context in which the benefits of voluntary multicommunity partnerships are evaluated by potential participants, given that cost considerations are attractive. The Roman numerals represent the subjective probability of partnership formation. Roman numeral IV, which is associated with the perception of both an equal distribution of benefits and little or no threat to viability, identifies the circumstances most conducive to at least cooperative partnership formulation. The previously mentioned landfill facility or a regional park would represent cooperative investment opportunities likely to convey such an impression. Roman numeral III identifies projects that distribute their benefits unequally but appear to pose little or no threat to viability. Projects whose site-specific benefits are relatively small fall into this category: regional libraries and offices of recreation and/or emergency planning boards
are examples. Given lower costs, cooperative partnerships should be relatively easy to forge under these circumstances.

High schools provide services equally to the regions’ residents, but they convey site-specific benefits to those communities that host them. Rivalry between competitive communities over where to situate a new high school, or which high school to close, may be prolonged and intense. Often it is only the necessity to provide the service somewhere within the region that eventually compels a solution. The specific conclusion may be coupled with an understanding about the siting of future infrastructure expansion or contraction or may be settled only through the intervention of a senior level of government. Situations of this type would likely be represented by a position near the bottom of quadrant II or near the top of quadrant I. [10]

Potential partnerships between competitive entities involving private sector investments characterized by site-specific benefit distribution would more likely be identified with a position in the bottom right quadrant of the diagram. The larger the project, for any given distribution of benefits, the further to the right the specific investment would be situated. Options involving large projects with a highly concentrated distribution of benefits would likely be viewed as representing a position near the bottom right-hand side of quadrant I. Voluntary partnerships for the pursuit of economic development among communities that view themselves as competitors are, thus, less easily arranged than are those associated with other benefit-threat combinations in Figure 6. [11]

**Multicommunity Partnerships and The Policy Framework**

In situations involving perceived positive-sum outcomes, as represented by quadrants III and IV in Table 4, multicommunity partnerships, particularly of the cooperative variety, are readily formed on a voluntary basis. Joint delivery of the services referenced in Figure 3 is common. Enabling legislation, if anything, is usually all that is required of senior governments to establish the appropriate policy framework.

In circumstances involving potential zero-sum outcomes (quadrants I and II in Table 4), voluntarily formed multicommunity partnerships are much less common. Clearly, existing governance structures are unsuitable for satisfactorily addressing such situations.

In the private economy, strategic behaviour becomes the *modus operandi* when transactions involve potential zero-sum outcomes. When the sum of the system benefits exceeds the sum of individual benefits (because of externalities), modification of the governance structure is not uncommon. Vertical coordination, or in the extreme -- vertical integration, brings all of the relevant participants under the same administrative structure. Strategic behaviour within the organization is discouraged and, if not eliminated entirely, substantially reduced. System benefits are increased as a result.

Senior governments have not followed the private sector example. They have, instead, turned a blind eye to local problems or tinkered with existing governance structures
rather than modify them sufficiently to ensure the emergence of collaborative partnerships.

In the case of infrastructure consolidation, senior governments have either neglected the situation when a local solution was not forthcoming (until the dwindling number of students made delivery of the standard curriculum virtually impossible [Wionzek 1995]), attempted moral suasion (by appointing advisory boards), or resorted to fiat (by eliminating operating grants or making the decision to close certain facilities unilaterally [Lepnurm 1995]).

Explicit senior government concern with policy for the rural economy (as separate from or in addition to the agricultural industry) is a relatively recent phenomenon. During the past decade, however, senior government programs designed to encourage rural economic development have been initiated. These programs typically provide for a transfer of funds from a senior level of government to establish a small pool of loanable funds and to pay salary and expenses for a small administrative staff. Guidelines are routinely provided regarding financial accountability but not for spatial allocation of the funding. Boards of directors, appointed from member communities, set priorities, approve loans, etc. The outcome, of course, is a sharing of the spoils among member communities rather than a focused effort to strengthen the larger regional economy (NCRCRD 1992; Stabler and Olfert 1994). Spreading the (limited) economic development around has the same result as sharing public infrastructure. The possibility of creating a regional focal point where some agglomeration effect might be realized is foregone, leakages remain high, multipliers remain low, erosion continues (Olfert and Stabler 1996; Wensley 1995).

The current approaches to both infrastructure consolidation and rural economic development share several common flaws. The resultant incentive structures actually reward strategic behaviour rather than encouraging the hoped-for collaboration focused on creating an economically stronger rural region.

In the first instance, the areas within which senior governments aspire to encourage collaboration typically do not coincide with any existing political jurisdiction. The market-driven restructuring currently underway is occurring within spheres of economic influence based upon labour markets and retail shopping areas. Rarely do these economic regions coincide with existing municipality, metropolitan, or county boundaries. More commonly they encompass several local jurisdictions (Stabler and Olfert 1996). Within this framework, any proffered alliances must be evaluated in terms of the contribution they can make to existing political entities. To do otherwise, in a potentially zero-sum situation, is to risk alienating the most influential segments of the community being represented.

Second, senior government program funding is usually provided by way of conditional, close-ended, matching grants to each activity individually or to each system (such as a school district) in the event of multiple facilities. Often the boundaries of these service areas (many defined decades ago) do not coincide with existing political jurisdictions,
economic regions, or each other. Further, local residents and local elected officials have little or no say in the configuration of the systems that deliver these programs and only limited and indirect responsibility for efficient use of funds within any one of the systems (through membership on boards). Clearly, it is easy for board members to view themselves primarily as representatives of their home community and conduct themselves accordingly.

**Conclusions**

There are a number of economic incentives for collective action, and communities routinely and voluntarily take advantage of them through cooperative partnerships in situations where positive-sum outcomes are anticipated.

Technological change, competitive forces arising in the global economy, and changing preferences are redefining the economy within which rural communities have functioned for generations. Fewer, larger, more efficient centres will be required in the future. Collective action, focused on preserving some islands of economic strength in rural regions, is required. But, the top down approach historically used by senior governments is no longer in vogue and present governance structures discourage the collaboration required to achieve this result.

An appropriate governance structure for effective rural development/restructuring would differ from the present dysfunctional structures in two important ways:

- development areas need to be defined in terms of the economic forces, the trading and employment relationships, that are shaping them. Within this framework, the boundaries of service delivery areas and their administrative structures also need to be reexamined;
- governance structures designed to strengthen the rural economy need to have the appropriate political, fiscal, and administrative authority to accomplish their objectives. With increased responsibility would come greater accountability.

There is probably no single ideal form of governance structure for rural development. Several options may be feasible. Perhaps what is required is a redefining of the geographic size and functional responsibilities of governments below the provincial, or at least the metropolitan, level. Alternatively, regional economic development authorities might suffice. In either event, appropriate geographic-administrative structures would require greater fiscal responsibility. Perhaps this would require providing local governments access to personal income taxes. Perhaps it would require lump sum (unconditional) transfers to local jurisdictions rather than special purpose (conditional) transfers administered by provincial line departments. It is clear, however, that what is required is a structure that replaces the present incentive for strategic behaviour at the level of the individual community with an incentive to identify with, and to be accountable for, the economies of larger regional entities.

**References**


**Endnotes**

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1. Community partnerships may be thought of as existing along a continuum ranging from networking to cooperation to coordination to complete collaboration. Complexity increases along this continuum from information sharing to joint problem solving. Members of partnerships based upon networking or coordination in a few dimensions generally retain their individual autonomy over policy making and service delivery. Collaborative partnerships relinquish some, or perhaps all, of their individual autonomy in the effort to promote a shared vision in policy making and service delivery or development (Cigler 1994).

2. There are the administrative and transport principal alternatives to the marketing principal typically used in central place theory, but they are quite unrealistic and have received little attention. An excellent review of the theory is found in Berry et al. (1988).

3. A cost function characterized throughout by the relationship identified in equation (4) exhibits "global subadditivity of costs". Local subadditivity of the cost function, which is not characterized by global subadditivity, is also possible.

4. Alexander (1992) offers a conceptual argument for a transaction cost-based approach to planning for individual communities. However, he does not extend the argument to the multicommunity framework.

5. Grosskopf and Yaisawarn (1990) mention the possibility of public sector administrators or employees capturing the cost savings in the form of higher wages.

6. This abstracts from the localized nuisance effect which is minimized by a rural location and for which compensation is sometimes paid.
7. Unfortunately, this strategy, which facilitates agreement among communities, may in some instances accelerate the decline of all of them. In some sparsely populated rural areas, the long-term downward trend in population suggests a strategy of consolidation into a few larger rural communities in order to maintain at least some viable rural centres. Distributing public investment among several communities dissipates the economic attraction that would result from concentrating it in fewer places (Stabler and Olfert 1992).

8. A potential divergence of interests may arise between the local administration, dedicated to preserving the viability of the town, and at least some of the town's residents who could benefit from improved access to employment anywhere in the immediate region.

9. The situation described is common in much of the sparsely populated Prairie Provinces and Plains States. The current competition to recruit business or to acquire region-serving infrastructure is reminiscent of the rivalry associated with attempts to persuade railroad companies to construct their track through "our town" during the settlement era. Competition to become the county seat was historically also characterized by intense strategic rivalry.

10. The same decision involving jurisdictions that view themselves less as competitors, such as a county and an individual community, might be more easily reached. In this case, a position in the bottom of quadrant IV or the top of quadrant III might describe the perceived conditions.

11. The perception of a threat to a community's viability is based on many considerations: the present vitality of its economy; the number of communities the region is anticipated to support in the future; the size and vitality of neighbouring communities; the size of the potential investment; the political significance of the potential investment.

12. For an analysis of the reasons for the failure to develop rural policy in the United States, much of which is applicable to the Canadian experience, see Bonnen (1992).

13. Transfers are typically made by line departments organized according to function (education, health, highways). These departments usually have no responsibility for (or perhaps even an awareness of) the regional economy within which their systems operate. Cooperation, or even consultation, among departments is rare. Obviously, local participation in the efficient allocation of resources among activities funded by transfers cannot even be considered in this context. Bird and Slack (1993) summarize as follows: "Most provincial-municipal grants in Canada are conditional, close-ended, matching grants that do not seem appropriate for achieving either allocative efficiency or fiscal equity. Provincial-municipal transfers in Canada thus appear to be designed to allow provincial governments to maintain a fair amount of control over the expenditure and taxing decisions of local governments while appearing to let local governments provide their own services. In effect, local governments in Canada, to a considerable extent, are
really acting as agents, spending provincial funds on provincially designated activities" (p. 138).

14. Galston (1992), using a different approach, arrives at a similar conclusion.

15. The Province of Saskatchewan has recently initiated a program in which local communities and rural municipalities are encouraged to voluntarily form Regional Economic Development Authorities (REDAs). The REDAs consist of contiguous rural jurisdictions, approximating local labour market areas, which include at least one community in the top four functional levels of the trade centre system. This is an important first step in redefining the rural governance structure in that province.

Table 1: A Classification of Economic Theory by Topics

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<th>Micro</th>
<th>Macro</th>
<th>International</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumption</td>
<td>Monetary Policy</td>
<td>Trade</td>
<td></td>
</tr>
<tr>
<td>Production</td>
<td>Fiscal Policy</td>
<td>Commercial Policy</td>
<td></td>
</tr>
<tr>
<td>Labour</td>
<td>Banking</td>
<td>International Monetary</td>
<td></td>
</tr>
<tr>
<td>Industrial Organization</td>
<td>Economic Growth</td>
<td>Economic Development</td>
<td></td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Level of Centre</th>
<th>1990 Community Characteristics</th>
<th>Change # Outlets 1961-1990</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCC</td>
<td>419</td>
<td>141</td>
</tr>
<tr>
<td>FCC</td>
<td>117</td>
<td>575</td>
</tr>
<tr>
<td>PSC</td>
<td>46</td>
<td>1,759</td>
</tr>
<tr>
<td>CSC</td>
<td>6</td>
<td>4,872</td>
</tr>
<tr>
<td>SWR</td>
<td>8</td>
<td>18,088</td>
</tr>
<tr>
<td>PWR</td>
<td>2</td>
<td>183,488</td>
</tr>
</tbody>
</table>

Note:
1. Levels refer to standard central place classifications: Minimum and Full Convenience Centres (MCC and FCC); Partial and Complete Shopping Centres (PSC and CSC); Secondary and Primary Wholesale-Retail Centres (SWR and PWR).
2. Source: University of Saskatchewan, Department of Agriculture Economics. Community Data Base.
### TABLE 3: Saskatchewan Community Characteristics, 1991

<table>
<thead>
<tr>
<th>Level of Centre</th>
<th>Retail Market Radius¹ (Miles)</th>
<th>Labour Market Radius¹ (Miles)</th>
<th>Income Multiplier</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCC</td>
<td>10.6</td>
<td>--</td>
<td>1.09</td>
</tr>
<tr>
<td>FCC</td>
<td>16.4</td>
<td>--</td>
<td>1.18</td>
</tr>
<tr>
<td>PSC</td>
<td>24.3</td>
<td>23.4</td>
<td>1.26</td>
</tr>
<tr>
<td>CSC</td>
<td>31.2</td>
<td>24.5</td>
<td>1.34</td>
</tr>
<tr>
<td>SWR</td>
<td>49.9</td>
<td>29.6</td>
<td>1.43</td>
</tr>
<tr>
<td>PWR</td>
<td>87.5</td>
<td>39.0</td>
<td>1.43</td>
</tr>
</tbody>
</table>

Note:
1. With a road network constructed on a rectangular grid, commuting distances could be up to 1.41 times the radius.

Source: University of Saskatchewan, Department of Agriculture Economics. Community Data Base.

### TABLE 4: Prospects for Voluntary Multicommunity Partnerships

<table>
<thead>
<tr>
<th>Perceived Distribution of Benefits</th>
<th>Perceived Threat To Viability</th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equal</td>
<td>IV</td>
<td></td>
<td>II</td>
</tr>
<tr>
<td>Unequal</td>
<td>III</td>
<td></td>
<td>I</td>
</tr>
</tbody>
</table>
FIGURE 1 Short Run and Long Run Cost Curves

$\$/x

MC_1, AC_1, MC_2, AC_2, MC_3, AC_3, LMC, LAC

0 \ x_0 \ x_1 \ x_2 \ x_3 \ x_4 \ x_5 \ x_6 \ x
FIGURE 2 Bases for Economies of Scale

ECONOMIES OF SCALE

REAL ECONOMIES

A. PRODUCTION

Labour
a) Specialization and skills
b) Time-saving
c) Automation
d) 'Cumulative volume' economics

Technical-capital
a) Specialization and indivisibilities
b) Set-up costs of 'general purpose' machinery
c) Initial fixed costs
d) Technical relationship between 'volume of machinery' and inputs producing it
e) Reserve capacity
f) in machines
ii) in repair workers

Inventory economies
a) Inventories in spare parts
b) Inventories in raw materials
c) Inventories in ready products

B. SELLING OR MARKETING

Advertising
Large-scale promotion
Exclusive dealers with obligation for maintaining service departments

Model change economies

C. MANAGERIAL

Specialization and team-work experience
Decentralization
Mechanization and time-saving managerial techniques

D. TRANSPORT & STORAGE

Lower prices for bulk-buying of raw materials
Lower cost of finance
Lower cost of advertising at large scale
Lower transport rates
Lower wages and salaries due to monopolistic power of large firms or to prestige associated with large firms
FIGURE 3 Present and Possible Future Intermunicipal Service Delivery

Current Intermunicipal Services

- Fire Prevention: 91%
- Regional Libraries: 64%
- Union Hospitals: 60%
- Emergency Planning: 40%
- Recreation Boards: 43%
- Landfill Sites: 38%
- Care Homes: 32%
- Regional Parks: 29%
- Animal/Pest Control: 29%
- ROCs: 21%
- Road Maintenance: 12%
- Seniors/ Low Income Housing: 12%
- Municipal Administration: 7%
- Community Futures: 7%
- Sewer and Water: 5%
- Building Inspector: 4%
- Regional Waste Disposal: 4%
- Community Planning: 4%

% of Respondents

Service Frequently Cited as Additions

- Landfill: 36%
- Recreation: 35%
- Regional Waste Disposal: 35%
- Road Maintenance: 15%
- Refuse Collection: 13%
- Equipment: 12%
- Building Inspection: 9%
- Municipal Police: 8%
- Swimming Pool: 7%
- Sewer and Water: 7%
- Municipal Administration: 6%
- Recycling: 6%
- Arena: 5%
- Cemetery: 5%
- Library: 4%
FIGURE 4 Benefits of Intermunicipal Service Delivery

Key Benefits of Intermunicipal Services

- Reduce Costs: 26.0
- Share Facilities/Equipment: 23.0
- Goodwill Fostered: 10.0
- Better Coordination: 10.0
- Quality of Services: 9.0
- Ability to Deliver more Service: 9.0
- Access to Grants: 6.0
- Sharing of Staff: 5.0
- Flexible Arrangements: 1.0
- Price Discounts for Volume: 0.4

% of Municipalities Citing Benefits

FIGURE 5 Economies of Scope