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Business Networks and Economic Development in Rural Communities in the United States

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Many rural communities in the United States are economically depressed. However, while poor rural communities are geographically isolated and small, they are likely to be rich in social capital. We first argue that the nature of the social capital in such communities can either facilitate or constrain the development of business networks among entrepreneurs. We then explain the community-level conditions that might increase the probability of business network effectiveness. The primary opportunities that such networks can exploit and their potential spillover effects on economic development are also identified. Finally, we provide directions for research that can contribute to better public policy decisions.

Introduction

Dramatic changes have been occurring in rural America. Agriculture, which once represented a primary income source for 25% of the rural population in the early 1970s, now represents the primary income source for only about 10% of the rural population (Drabenstott, 2003). Although rural locations have disadvantages in terms of small market sizes, geographic isolation, and reduced access to skilled labor, technology, and equity capital, some regions still flourish with above-average levels of firm births and with high growth ventures, particularly in the retail sector (Acs & Malecki, 2003; Henderson, 2002; North & Smallbone, 2000a).

Nevertheless, patterns of development remain uneven. Drabenstott's (2003) analysis suggests that as much as 60% of the rural places in the United States did not experience economic gains in the 1990s. Porter, Ketels, Miller, and Bryden (2004, p. 7) note that "The general consensus is that rural areas in the U.S. are underperforming metropolitan areas, and that the gap is widening." Furthermore, while acknowledging that some rural communities in the United States have done well in recent years, especially those with retirement-based economies, regional trade centers, or scenic attractions, Atkinson (2004) points to pockets of persistent rural poverty in areas such as Appalachia, the Mississippi

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Delta, the Rio Grande Valley, and Native American lands. Thus, research on the challenges of rural development cries for attention.

In the United States, where federal policies for venture and rural development are largely absent (Acs & Malecki, 2003), state governments have committed valuable time and resources to economic development programs in an attempt to revitalize rural communities (Falcone, Allen, & Vatter-Vance, 1996; Henderson & Novack, 2003; Lyons, 2002). Unfortunately, many of the programs created to alleviate the problems do not work very well (Aziz, 1984; Cornwall, 1998). Researchers suggest that networks of rural entrepreneurs may be part of the solution to the rural development problem (e.g., Keeble, Lawson, Moore, & Wilkinson, 1999; Malecki & Veldhoen, 1993; North & Smallbone, 2006). The convergence of this suggestion with analyses offered from a number of disciplinary perspectives such as sociology (Flora, 1998), public policy (Woolcock, 1998), and political science (Putnam, 1993), makes this proposal a prime candidate for further inquiry, as does the considerable attention paid to the idea by trade organizations in other countries (e.g., Inter*Trade*Ireland, 2005). Business networks offer myriad opportunities for overcoming the scale and capability limits inherent in rural enterprises. Indeed, the social capital inherent in rural communities can lead to utilities that affect behavior, resource exchanges, and collective entrepreneurial activities (Westlund & Bolton, 2003; Woodhouse, 2006).

Similar patterns of agriculture's declining prominence and varying rates of growth have been observed outside the United States (Meccheri & Pelloni, 2006; Terluin, 2003). Beginning in the mid-1980s, interfirm collaboration as a means of rural development became a widely explored option in Europe (Rosenfeld, 2001; Sommers, 1998). The northern Italian region of Emilia Romagna provided the prototype for networks of small, independent firms formed to enhance competitiveness. Major initiatives were undertaken, beginning in Denmark, to translate the Emilian model into other European countries. As a consequence of the initiatives in rural communities in Europe, the number of vertical, horizontal, and complementary business networks in those communities has increased in the past two decades (Keeble, 1997; Murdoch, 2000). Although programs aimed at fostering and improving business networks have yielded discouraging results in the UK (Huggins, 2001), the well-financed programs in Denmark have had high participation rates and positive impacts in a number of areas (Rosenfeld, 1996).

However, efforts to import European network models into the United States have yielded only mixed and modest success (Rosenfeld, 2001; Sommers, 1998). While this might be a consequence of differences between the American and European situations (e.g., national policies, culture, community dispersion), or of problems in funding, implementing, and assessing the relevant programs, some research results suggest that the issue may be related to the heterogeneity of rural regions, a heterogeneity that exists whether one focuses on intranational or international comparisons (Meccheri & Pelloni, 2006; North & Smallbone, 2006).

While research has advanced our understanding of rural entrepreneurial networks, there have been relatively few studies of rural entrepreneurship in the United States (Chrisman, Gatewood, & Donlevy, 2002). There also have been few attempts to develop models that would help explain the conditions within rural communities that give rise to entrepreneurial networks or that influence their success, the major exceptions being the work of Flora and colleagues (Flora, 1998; Flora & Flora, 1993; Flora, Sharp, Flora, & Newlon, 1997; Rosenfeld, 1993, 1996, 2001). Furthermore, the work that has been done has largely focused on network initiatives induced by government agencies or community/industry associations (e.g., Huggins, 2000; Johannisson, Ramirez-Passillas, & Karlsson, 2002; Sommers, 1998; Tillmar, 2006; Torre, 2006) rather than on the initiatives of individual firms. There also remains a need to tie together the knowledge gained about the influence of community-level attributes that contribute to network formation with the economic opportunities present in rural areas that make networks an attractive option from the perspective of both the individual firms and the community at large (Huggins, 2000; Phillipson, Gorton, & Laschewski, 2006).

Purpose, Contributions, and Scope

In this conceptual article, we contribute to scholarly thinking about the role of business networks as a form of entrepreneurship for enhancing rural economic development. To do so, we develop a model and propositions concerning the community-level characteristics that may favor or inhibit the formation and success of rural networks in the United States, recognizing that some, but not necessarily all, of our conjectures may apply to rural communities in other countries. We further contribute to the literature by discussing the nature of the opportunities that must be available or created in order for network formation to yield economic benefits for individual firms and communities, as well as the spillover effects of networking initiatives. A significant aspect of the paper's contribution is that it draws together the literature from entrepreneurship, sociology, and regional development to develop a more nuanced and comprehensive understanding of the resources present in many rural communities and the challenges associated with achieving an effective balance between the different forms of social capital needed for the economic cooperation of individual entrepreneurs.

Our model and propositions concern networks formed by individual entrepreneurs and their firms both because such networks have been described as a way for firms to overcome the kinds of resource and market limitations (Brush & Chaganti, 1996; Forrest, 1990; Hoang & Antoncic, 2003; Lei & Slocum, 1992) that are inherent in many rural communities and because of the limitations of network-formation efforts induced by external agencies. We apply the work of Flora and Flora (1993) and of Flora (1998) to argue that the likelihood of network formation in rural communities will be enhanced when the social capital of a community permits constructive conflict, inclusive interactions of diverse groups, and permeable boundaries. More importantly, we extend their work by explaining why the probability of commitment, communication, and goal compatibility among network partners should increase in rural communities that possess these attributes. We focus on these attributes of business networks because previous research suggests that they will positively influence network success (Das & Teng, 1998; Elmuti & Kathawala, 2001). Finally, we extend the thinking inherent in the proposed model to outlining a research program that could assist in the formulation of policy on the development of business networks for rural economic development.

For the purpose of this article we concentrate on rural communities in the United States with small, dispersed populations that are located within a county that is not adjacent to any county containing an urban area (Chrisman, Van Deusen, & Anyomi, 1992; U.S. Census Bureau, 2002). These rural communities are generally constrained in their ability to provide or obtain a critical mass of products or services for inhabitants owing to resource and market limitations. In the European literature such communities or regions are generally referred to as "remote" as opposed to rural communities that are "accessible" to urban areas (e.g., Keeble & Tyler, 1995; North & Smallbone, 2000b; Smallbone, North, & Kalantaridis, 1999).

Our focus is on how the social and economic characteristics of a community affect the formation and success of rural business networks. Because these networks tend to be composed of small and/or new firms, where the owner-manager dominates decision making and the nature of a firm's relationship with both network partners and other external stakeholders, our discussion deals with individual entrepreneurs, and is therefore roughly synonymous with a focus on entrepreneurial firms (cf. Johannisson et al., 2002). Thus, our independent variables are community contingencies. Our dependent variables are the behaviors and decisions of individual entrepreneurs (or entrepreneurial teams) that affect the formation and development of networks among small and new firms within a given community in order to develop innovative responses to economic opportunities and threats, which thereby contribute to economic development.

In the following sections, we further discuss the problems of rural communities, briefly review the literatures on social capital and business networks, and then use the insights from those literatures to develop a model and propositions on entrepreneurial network formation in rural communities. We conclude with a discussion of research and public policy implications.

Theoretical Setting

Distressed rural communities face many of the disadvantages of distressed urban areas in terms of lower levels of education and worker skills, lack of business and technological expertise, and limited capital to finance development (Henderson, 2002; Perry, 1984). The small size and geographic isolation of rural communities, as well as limited access to human resources, markets, and institutional support mechanisms, tend to exacerbate these problems (North & Smallbone, 2000a). Nevertheless, rural communities also appear to have some advantages, such as labor force stability and costs, rural image, and amenity-based "countryside" capital (Garrod, Wornell, & Youell, 2006; Keeble & Tyler, 1995). However, the most important advantage of rural communities may be the layers of interconnected social relationships necessary for the development of social capital (Woodhouse, 2006), which is "an attribute of the social structures in which a person is embedded" (Coleman, 1990, p. 315). Ironically, the social capital inherent in rural communities is engendered by, among other things, the small size and geographic isolation of these communities (Peredo & Chrisman, 2006).

The social capital present in rural communities can be an important resource for the development of entrepreneurial ventures (Aldrich & Zimmer, 1986; Cornwall, 1998; Jack & Anderson, 2002; Peredo & Chrisman, 2006; Westlund & Bolton, 2003), which, being a catalyst of change and a source of job creation, offers a potential solution to the problems of rural economic development (Birch, 1987; Kirzner, 1973; Leff, 1979; Schumpeter, 1934). However, for entrepreneurship to take hold and have an impact, two conditions must be met, both of which are difficult to achieve in rural settings and both of which are addressed in this article.

First, the proper stimuli are needed in a community in order to unleash entrepreneurial activity. It is one thing to propose entrepreneurship as a solution to rural economic development problems; it is quite another to alter local conditions and individual mind sets in a way that makes entrepreneurship more attractive and feasible. As suggested by Minniti and Bygrave (1999), the amount of entrepreneurship in a community is an important determinant of an individual's decision to engage in entrepreneurship. The self-reinforcing nature of entrepreneurship in a community helps explain why some rural areas are more prosperous than others. Individuals in areas without entrepreneurial role models or an entrepreneurial culture are less likely to take on the uncertainty and risks of venture creation. Thus, community characteristics or policies that do not have a long-term positive effect on the level of entrepreneurial activity are likely to have only a transitory impact at best on economic development (Minniti & Bygrave).

Second, the entrepreneurial activity that does occur must lead to the creation of substantial enterprises. By this we mean that the ventures created must be innovative in terms of adding new value to the community rather than just duplicating or replacing the products or services offered by existing ventures in the "circular flow" (Schumpeter, 1934). De Soto (2000) suggests that the problem facing many impoverished regions is not the lack of entrepreneurship, but rather the lack of entrepreneurial endeavors that could move those regions to new levels of development (also see Sommers, 1998).

Peredo & Chrisman (2006) address these problems by discussing the facilitating conditions, characteristics, and processes of community-based enterprises. They suggest that when triggered by social or economic stress, small communities that are rich in social capital and are able to learn from collective experiences have the potential to both identify opportunities and marshal and coordinate the resources required to seize those opportunities. Peredo and Chrisman argue that such conditions can lead to the development of community-based enterprises, where the community becomes the entrepreneur as well as the enterprise. This collective action allows the community itself to become an endogenous factor in a holistic local development cycle that begins with entrepreneurial activity. However, the processes and outcomes they discuss require community-wide participation in an enterprise, embedded in a collectivist culture.

Not all communities possess the degree of collectivist orientation that appears necessary to build community-based enterprises. Indeed, individualism rather than collectivism is a dominant cultural attribute in the United States (Hofstede, 1993). Nevertheless, if effectively harnessed the social capital within rural communities may increase the odds of successful business networks (Flora, 1998; Flora & Flora, 1993; Flora et al., 1997), which may be more conducive to the cultures of rural communities in the United States. Networks and community-based enterprises may provide similar economic development benefits since both forms of ventures facilitate the discovery and exploitation of clusters of opportunities for entrepreneurial pursuits. Furthermore, individualism does not preclude cooperation, and networks of one kind or another appear to offer an acceptable blend of independent and cooperative behavior. Indeed, there is a strong tradition of cooperatives as a form of business in the rural United States, with 40% of the rural population belonging to one or more of the 47,000 registered co-ops (Martin & Stiefelmeyer, 2001). According to Rosenfeld (2001), this was among the factors that contributed to the interest in networks among rural development strategists.

In the following sections we provide a general discussion of social and business networks as a prelude to the development of our propositions on the attributes of rural communities that influence the formation and characteristics of business networks.

Social Networks and Social Capital

Social networks consist of social relationships that bind together individuals and organizations in a given community (Granovetter, 1973; Laumann, Galaskiewicz, & Marsden, 1978). Networks imply embeddedness, which is a dependence on social relations among network members that both constrain actions and offer benefits (Granovetter, 1985). The constraints and benefits offered from the embedded nature of the network will vary based on the patterns and features of the interpersonal relationships affecting the characteristics of the network (Erickson, 1988). One such feature is the level of frequency and intensity in the relational ties between the members of a network, which can be either strong or weak. Granovetter (1973) defines tie strength as a compilation of emotional intensity, intimacy, time, and reciprocity. Members of a network with strong ties will have access to more information about events that occur in the proximity of that network, but will not necessarily have access to new information from outside the network. On the other hand, weak ties—the relatively infrequent and informal connections with acquaintances—can connect dense pockets of strong tie groups to each other, allowing access to more information and resources. Granovetter (1973) explains that the strength of weak ties lies with their ability to foster information exchange across networks. Weak ties are particularly important when new information surfaces. Without contact with other strong tie groups through weak ties, networks may become fragmented and incoherent (Granovetter, 1973).

While weak ties are important (North & Smallbone, 2006), in the absence of strong ties they are likely to be ephemeral (Woodhouse, 2006), providing information but not the social capital based on trust and reciprocity that may be needed to act upon that information (cf. Beyers & Nelson, 2000). Thus, researchers who have studied entrepreneurial and rural networks tend to agree that a balance of strong and weak ties is necessary for economic development (Hoang & Antoncic, 2003; Huggins, 2000; Westlund & Bolton, 2003; Woodhouse).

Building on the work of Gittell and Vidal (1998), and consistent with Granovetter's (1973) distinction between strong and weak ties, most scholars now also distinguish between "bonding" and "bridging" social capital (Harper, 2001; Putnam, 2000; Woolcock, 2001). Bonding social capital exists within comparatively homogeneous, tight-knit groups, such as families, close friends, and neighbors. Bridging social capital, on the other hand, reaches beyond the tightly bonded group to more heterogeneous groups with looser connections, such as networks of acquaintances and associates. Thus, bonding social capital tends to emerge from strong tie networks and provides the "glue" needed to link community members together (Anderson & Jack, 2002; Putnam). Bridging social capital tends to be characteristic of weak tie networks. It provides the lubricant to expand a network's capacity to engage in mutually beneficial actions and exchanges (Anderson & Jack; Putnam).

Rural entrepreneurs are embedded in multiple networks with varying levels and types of social capital. However, rural communities are typically better endowed with bonding social capital, owing to common backgrounds and frequent interactions (Peredo & Chrisman, 2006), than with bridging social capital, owing to geographic isolation and small population size (Humphrey, Erickson, & McCluskey, 1989). Bonding social capital, based on reciprocity and mutual trust, increases with use, allows other types of capital to be used more efficiently (Coleman, 1988; Putnam, 1993; Westlund & Bolton, 2003; Woodhouse, 2006), and consequently can contribute to economic development (Lyons, 2002). Since bonding social capital is typically embedded in strong-tie networks that have the ability to discipline members who may in fact gain utility from membership, it can elicit reciprocal commitments to the mutual success of entrepreneurs in a community (Portes, 1998; Westlund & Bolton).

Nevertheless, social capital grounded in excessively strong ties can have negative as well as positive effects on economic development (Johannisson et al., 2002). Portes (1998, p. 15) notes that social capital can lead to the "exclusion of outsiders, excess claims on group members, restrictions on individual freedoms, and downward leveling norms." Woolcock (1998) observes that high levels of social capital may inhibit individual expression and advancement, permit-free riding and, in traditionally marginalized groups, undermine belief in the possibility of advancement through individual effort. More to the point, in spite of its potential benefits, bonding social capital can lead to anticompetitive behavior (Pittaway, Robertson, Munir, Denyer, & Neely, 2004), can inhibit entrepreneurship by newcomers (Phillipson et al., 2006), and can prevent the free flow of ideas necessary for innovation to occur (cf. Woodhouse, 2006).

Thus, in addition to the relative paucity of opportunities for developing bridging social capital in rural communities, very strongly bonded groups might exacerbate the situation by erecting barriers against associations with outsiders (Portes & Landolt, 2000; Woolcock, 1998). The benefits of high levels of bonding social capital may therefore bring costs in terms of limiting the ability to develop bridging social capital. This helps explain why social capital appears at times to have negative as well as positive effects for entrepreneurship as well as for other aspects of community life (Portes & Landolt; Westlund & Bolton, 2003; Woolcock). Woolcock's conclusion is that the resources of social capital need "to be optimized, not maximized" (p. 158). This optimal balance is delicate and dynamic, with the danger being that one kind of capital will crowd out or foreclose attempts to develop the other.

Business Networks: "Soft" and "Hard"

The conception of business networks employed in this article is intentionally broad and inclusive. Business networks are thus defined as mutually beneficial relational contracts between two or more legally independent firms that involve the sharing or exchange of resources (Gulati, 1998; Huggins, 2000; Parkhe, 1993; Reijnders & Verhallen, 1996; Yoshino & Rangan, 1995). Benefits of business networks include: (1) access to knowledge; (2) risk sharing; (3) access to markets; (4) access to technologies; (5) increasing speed to market; (6) pooling of complementary skills; and (7) safeguarding property rights (Pittaway et al., 2004).

Researchers have distinguished between "soft" and "hard" networks (e.g., Ffowcs-Williams, 1996; Rosenfeld, 1996). Soft networks are relatively informal groups with more or less open membership that involve cooperation to deal with common problems, share information, or achieve outcomes that are mutually advantageous to network members. If this sort of network requires financial commitments, it is usually in the form of a membership fee (Rosenfeld, 2001).

Hard networks are more formal, generally require some form of contractual commitment with regard to the sharing and exchange of resources and profits, and are therefore more restrictive in terms of membership. Hard networks (as well as soft networks) may involve horizontal relationships among competing firms, vertical relationships among firms that exist at varying stages of the value chain, or relationships among firms that produce complementary products or services (e.g., hotels and restaurants). These relationships can assume the following forms: (1) distribution agreements, (2) patent licensing agreements, (3) know-how licensing, (4) marketing/service agreements, (5) R&D agreements, (6) minority equity, (7) limited cross equity ownership, and (8) independent joint ventures (Contractor & Lorange, 1988).

The distinction between soft and hard networks in practice marks out areas on a continuum between loose and informal arrangements, and highly structured and formalized associations. Soft networks are more flexible and easier to establish, especially in rural areas, and their lower investment requirement in terms of time and money tend to make them longer-lived (Rosenfeld, 2001). It appears likely, as well, that soft networking can help prepare potential partners for the more demanding joint planning and operations of hard networks, and that hard networks do better when supported by soft networks (Sommers, 1998). Thus, while there is some evidence that hard networks have greater long-term economic impact, the presence of soft networks can facilitate their development. In fact it has been suggested that soft networks may have a more substantial and durable effect on firms' capacity to cooperate (Sommers).

The distinction also helps to understand and evaluate different attempts to facilitate business networking. Programs in Europe have largely focused on the development of hard networks, while rural programs in the United States have concentrated more on soft networks (Rosenfeld, 2001). There is a clearer and relatively immediate financial expectation on the part of individual firms in hard networks; whereas in soft networks members tend to place a higher value on the network relationships themselves and settle for less tangible rewards (Rosenfeld). Finally, the informal character of soft networks may simply make it more difficult to identify soft networks that exist and to discern their effects.

Although the exchanges that occur in business networks generally have identifiable ends, the individual firms are likely to have different goals, strengths, weaknesses, and bargaining positions, and be more or less prone toward opportunistic behaviors at the expense of their partners (Gibbs, 2003; Harrigan, 1985). The extent and importance of these differences will, of course, be a function of the firms that make up the network as well as the type of network formed. Given that business networks offer a variety of benefits, such networks can also face a variety of problems arising from conflicts developing from or leading to unequal commitments, incongruent venture goals, and limited or ineffective communication (Pittaway et al., 2004).

Firms in networks must deal with relational risk, which is the "probability that the partner does not comply with the spirit of cooperation" (Das & Teng, 1998, p. 25). It seems reasonable to suppose that as a network becomes more formal and extensive this risk increases. Relational risk and its cost can also be magnified when, owing to differences in resources, competencies, or equity holdings, power asymmetries exist between network partners (Muthusamy & White, 2006). Dominant partners are better able to withhold resources, or otherwise act opportunistically in the pursuit of firm-level versus network-level goals. This may reduce commitment and hamper communication, as well as lead to rigidities or lock-in (Gulati, Nohria, & Zaheer, 2000).

Although relational risk can be difficult to overcome, many successful hard and soft networks exist (Das & Teng, 1998; Gulati, Khanna, & Nohria, 1994; Rosenfeld, 2001). Based on the results of several studies of the determinants of network success (Elmuti & Kathawala, 2001; Hoffmann & Schlosser, 2001; Huggins, 2000; Monczka, Petersen, Handfield, & Ragatz, 1998; Saxton, 1997; Sherer, 2003) it is clear that the most effective way to overcome relational risk is through the development of social capital built on trust and reciprocity. The development of appropriate forms and combinations of social capital is both a cause and a consequence of the extent to which partners are committed to the network, are able to communicate, and have compatible goals. Consistent with our earlier discussion, the manifestation of social capital in a community should influence network formation and ultimately affect the content, governance, and structure of the networks that are formed (Hoang & Antoncic, 2003; Todeva & Knoke, 2005). This is because the members of rural business networks are individual entrepreneurs whose predispositions and behaviors are affected by their experiences as members of a community. In the following section we will discuss the social characteristics of a community that are proposed to influence the formation of business networks.

Business Network Formation in Rural Communities

It is clear from the literature that the key forces driving the formation of rural business networks include the presence of an entrepreneur or entrepreneurs who are willing to initiate cooperation (Huggins, 2000; Malecki & Veldhoen, 1993; North & Smallbone, 2006), and a need for cooperation to counter threats or, more importantly, seize opportunities (Peredo & Chrisman, 2006; Phillipson et al., 2006). We will deal with the characteristics of a rural community that give rise to entrepreneurial opportunities later in this article. However, the question that we seek to address in this section is what are the social characteristics of a rural community that prompt entrepreneurs to form networks? In other words, what aspects of the social structure of a rural community increase the likelihood entrepreneurs will be willing to cooperate?

Several authors have emphasized the importance of social capital in a rural community for business networking and economic development (Keeble & Wilkinson, 1999; Sommers, 1998; Woodhouse, 2006). However, it was Flora and Flora (1993) who first explained how different configurations of social capital might facilitate or impede collective action. Their model, termed entrepreneurial social infrastructure (ESI) includes three broad components which were proposed to affect community development initiatives: (1) mobilization of resources, (2) the legitimacy of alternatives, and (3) network qualities. A study of 718 officials in rural communities found general support for the model (Flora et al., 1997).

Flora (1998) makes it clear that ESI is built on social capital, but that social capital does not necessarily lead to a social infrastructure that promotes entrepreneurship. Indeed, in the case studies of two midwestern rural communities he analyzes, both appeared to possess large amounts of social capital but differed substantially in their capacity to engage in collective entrepreneurship. We adapt the ESI model to develop propositions about the determinants of business network formation in rural communities and then extend it to discuss factors that influence the characteristics of business networks.

We draw as well on the complementary contribution of Woolcock (1998), who calls attention to the need for a dynamic balance between bonding and bridging social capital to realize community economic development. Thus, the model we employ embeds business networks firmly within complex configurations of social capital.

The mobilization of financial and other resources rests on the willingness of members of the community to invest individually and collectively in community projects. The need for financial capital in venturing (including network formation) is well known and has been dealt with extensively in the literature (e.g., Cassar, 2004; Schumpeter, 1934; Shane & Cable, 2002; Westlund & Bolton, 2003). It would be a mistake, however, to confine consideration of resources to financial capital. Smaller communities, with their highly developed social networks, may offer a multitude of resources such as volunteer labor, access to infrastructure and donated equipment, technical information, and advice that may make very significant contributions to the launch and the success of a new enterprise. Resources such as these should not be discounted, and it seems clear that where communities enjoy relatively high stores of bonding capital, these resources are likely to be more readily available. This offers added support to Flora and Flora's proposal. Nevertheless, since the need for resources is relatively well understood, we focus on the remaining components in Flora and Flora's model—constructive conflict, network inclusion, and network permeability—that serve to unleash the potential for resource exchanges and combinations among individual entrepreneurs in network configurations.

Legitimacy of Alternatives: Constructive Conflict

The legitimacy of alternatives deals with the ability of a community to engage in constructive conflict by depersonalizing politics and focusing on processes as well as outcomes (Flora, 1998; Flora & Flora, 1993). Rural communities that are able to accept constructive task and process-related conflicts and minimize destructive personal conflicts (Jehn, 1995) will be better able to utilize available social capital in an entrepreneurial way than those that are not, because constructive conflict and new ideas are two sides of the same coin.

Portes (1998) warns that one of the dark sides of social capital is its potential to restrict individual freedom, which is another way of stating that too much conformity of ideas is not necessarily a good thing. In a similar vein, Woodhouse (2006) suggests that while strong community social capital can be a breeding ground for economic development, fresh ideas are necessary for such development to occur. As noted earlier, access to bridging social capital supplied by weak ties—the lubricant of social networking—is a necessary complement to the glue of bonding social capital supplied by strong ties.

Business networks are entrepreneurial by nature, since they represent a new way of conducting economic exchanges for the parties involved. Although potential network members may see economic benefits from collaboration, it is doubtful they will agree on all facets of the arrangement. Thus, business networks are more likely to occur in communities where the ESI encourages the free exchange of ideas among its members. Such exchanges are necessary for new arrangements to be broached, discussed, and potentially accepted. Furthermore, without an ability to disagree and debate during the process of development few business networks will be started or survive, since the understandings leading to membership will invariably need to be revised; lacking a mechanism for negotiation and change, initial start-up efforts are likely to collapse. Consequently, business networks are more likely to be formed when the history of social exchange in a community enables entrepreneurs involved in the network to engage in moderate levels of conflict on ends and means without a breakdown of their relationship.

Proposition 1: Business networks are more likely to be formed in rural communities characterized by constructive conflict.

Network Qualities: Inclusion and Permeability

Network qualities deal with the boundary characteristics of the existing social networks in a rural community (Flora, 1998). Two aspects are important. First, although rural communities are small, they are not necessarily homogenous. Different social networks can exist in a community, based on factors such as social status, gender, and ethnicity (Portes, 1998; Tillmar, 2006). The extent to which these diverse groups interact, overlap, or are linked by weak ties and bridging social capital, is an important determinant of the experience and knowledge available for collective action (Flora & Flora, 1993). Thus, rural communities that are inclusive should be more suited to the development of business networks because the possibility for cooperation among members of different social groups is higher. Furthermore, because members of different social groups are likely to have nonredundant skills, perspectives, and contacts, the resources available for network formation should be greater, thus promoting their emergence.

Second, rural communities are not necessarily static in their size, composition, or external relationships. In fact, the extent to which the boundaries and connectivities of rural networks allow for the development of new relationships over time can influence opportunities for collective action (Flora, 1998). Thus, permeability of the social network is important for business network formation. For example, some rural communities experience significant in-migration and these new residents can be an important source of entrepreneurship (Beyers & Nelson, 2000; North & Smallbone, 2006). When permeable network boundaries allow newcomers to become an integral part of the community the possibilities for rural networks increase. Conversely, when boundaries are fixed and difficult to penetrate, entrepreneurial initiatives by new residents are more difficult (Phillipson et al., 2006), and network opportunities are fewer. Changes in the makeup of a community, as well as changes in the demands made by different stages of business development, underline again the need for a dynamic and fluid balance between strong, bonding social capital, and weaker but farther reaching bridging social capital.

The dynamism of the balance is crucial. In the early stages of network formation, for instance, comparatively strong bonding forces are needed to bring network partners together. One very potent impetus may be the shared perception of a common, external threat. Peredo and Chrisman (2006, p. 317), for instance, cite threats to the "sustainability of a community's way of life" as a typical trigger for the development of community-based enterprises. At this point, venture creation is quite compatible with social networking that to a considerable degree relies on strong ties among community members. However, bridging capital may still serve an important role by, for example, providing the information needed to recognize the threat in a timely fashion.

On the other hand, as networks mature and product and factor markets expand, the relative balance of social capital must shift in favor of bridging connections that allow network partners to obtain information and other resources from outside the confines of the closely bonded community (Woolcock, 1998). This is consistent with Flora's (1998) emphasis on the importance of permeability that extends beyond a community's geographic borders, which allows bridging relationships to be developed and exploited. At this stage the sense of a common threat may help maintain the bonds among network members as well as extend the scope of those bonds, as long as the threat is seen as external to the membership as it enlarges.

Networks among entrepreneurs in proximate communities are more likely if there is a history of interaction. As Murdoch (2000) notes, the development of new networks requires flexibility, sometimes needs to extend long distances owing to low population densities, and tends to emerge and be dependent upon old structural arrangements. Thus, over time, permeable social networks in a community would tend to promote an appropriate balance of strong and weak ties (Flora, 1998; Westlund & Bolton, 2003; Woodhouse, 2006), which are often dependent upon one another for their development (Terluin, 2003).

To summarize, rural communities with inclusive social infrastructures offer the diversity of contacts and resources necessary for the formation of business networks. In addition, when the social infrastructure is permeable, community norms will encourage the flexibility entrepreneurs need to accept potential network partners who are newcomers to the community or who reside outside of the community. Thus, both inclusion and permeability should increase entrepreneurial propensities for business network formation and development in rural communities.

Proposition 2: Business networks are more likely to be formed in rural communities characterized by inclusive social networks.

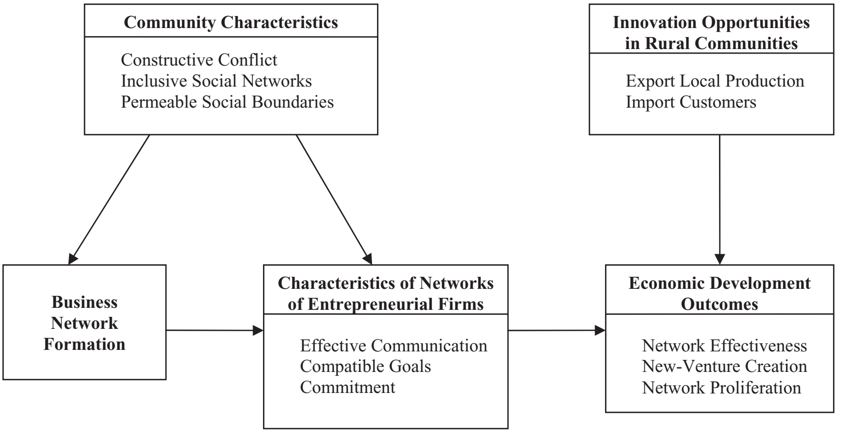
Proposition 3: Business networks are more likely to be formed in rural communities characterized by permeable social networks.

Characteristics of Business Networks in Rural Communities

Johannisson and Monsted (1997) describe entrepreneurship as a highly socialized process based on networks. We contend that business networks in rural communities may

Figure 1

Rural Business Network Model



be more effective if the characteristics of rural communities increase the likelihood that the partnering entrepreneurs are committed, able to communicate, and possess compatible goals. Besides being important individually, these desirable characteristics build upon each other in a reciprocal fashion because they jointly promote the application of the social capital inherent in small rural communities. For example, sustained commitment allows network members to focus on mutual goals rather than attempting to exploit power asymmetries that can lead to dysfunctional behaviors, such as withholding information or resources (Frazier, Gill, & Kale, 1989).

As shown in Figure 1, when the balance of social capital in rural communities leads to an ESI that contains inclusive and permeable networks and permits constructive conflict, the formation of business networks should be facilitated and rural entrepreneurs are more likely to be able to exploit the resources available through their network connections. Their networks are also more likely to endure and evolve in response to changing demands. Furthermore, these characteristics may result in behaviors that reduce power asymmetries and relational risk. Consequently, the chance for effective communication, for development of compatible goals, and for commitment increase.

In the next three sections we discuss how characteristics of rural communities may lead to these desirable attributes. This is followed by a discussion of the potential economic development outcomes of our model as well as an explanation of the opportunities that could affect those outcomes.

Network Communication in Rural Communities

Communication has been shown to have a positive impact on the performance of both business and rural networks (Elmuti & Kathawala, 2001; Keeble & Wilkinson, 1999; Keeble et al., 1999; Monczka et al., 1998). Communication is likely to be effective when network partners possess strategic similarities owing to restrictions in the scope of existing opportunities (Tickamyer & Duncan, 1990), common paths of development and cultural antecedents (cf. Hofstede, 1980), and commonalities in perceptions about the present and the future (Chrisman, Chua, & Steier, 2002). Such commonalities facilitate communication in two ways. First, shared backgrounds, strategic orientations, and perceptions make it more likely that network members will interpret or make sense of phenomena in the same basic way (Daft & Weick, 1984; Weick, 1995). Such similarities in interpretation and sense making facilitate communication.

Second, commonality in backgrounds suggests the presence of the frequent and intensive interactions involving feedback and reciprocal actions that are needed for cohesion (Burt, 1987). Such cohesion tends to promote personal trust, which is essential for all entrepreneurial activities (Welter & Smallbone, 2006) including business networks. For example, Huggins (2000, p. 129) records the observation of one managing director who proposed that trust was more easily engendered when members of a network saw themselves as being of a "similar ilk," coming from common backgrounds and being based in the same geographical area. Thus, when trust is present communication should be more frequent, candid, and likely to elicit the intended responses.

Rural communities characterized by inclusion and permeability will capitalize on such commonalities. Thus, while rural network members are likely to come from the same community or from communities within close geographic proximity, the span of their formative experiences will be greater when the social networks within and across those communities are inclusive and permeable. Inclusive communities are more likely to tolerate interactions among members from different social strata; therefore, the possibility that entrepreneurial partners in a business network will have played together when young, attended the same school or church, have some of the same friends, and otherwise have interacted socially at some point in their lives will be greater. Communities with permeable social infrastructures will also be more prone to exhibit friendly rather than toxic rivalries with nearby communities and will promote entrepreneurial initiatives that foster joint development and long-term linkages among members of those communities (Flora, 1998).

However, while inclusion and permeability foster a tolerance for individual differences, thereby minimizing personal conflicts and promoting cohesion, allowance for constructive conflict ensures that differences in ideas are not discouraged. This is particularly important for business networks where there is a need to develop an approach to the market that will lead to competitive advantage (Hoang & Antoncic, 2003; Pittaway et al., 2004; Todeva & Knoke, 2005). In fact, studies by Amason (1996) and by Jehn (1995) suggest that moderate levels of constructive conflict improve decision making and destructive personal conflict hampers decision making. Furthermore, Ensley, Pearson, and Amason (2002) show that the cohesion of new venture management teams is positively related to constructive conflict and negatively related to destructive conflict. Thus, based on the above discussion we propose:

> **Proposition 4:** Members of business networks in rural communities with social networks characterized by constructive conflict, inclusion, and permeability are more likely to effectively communicate than members of business networks in rural communities with social networks that lack those characteristics.

Goal Compatibility Among Network Members in Rural Communities

As suggested by the network literature (Elmuti & Kathawala, 2001; Huggins, 2000; Johannisson et al., 2002), goal compatibility is an important ingredient for the success of a business network since it reduces perceived relational risk, makes power asymmetries less important, and improves communication between partners. We propose that partners in rural business networks are more likely to possess goals that members recognize as compatible when inclusion, permeable boundaries, and constructive conflict exist at the community level. Thus, in addition to potentially increasing communication, the cohesion resulting from inclusion may have an effect on the level of perceived goal compatibility among network members. As explained earlier, common perceptions among network members are liable to lead to similarities in views, as well as in values, aspirations, and expectations. Inclusion and permeability in the social structures can be expected to extend the range of values, aspirations, and expectations that are regarded as compatible and negotiable.

Such characteristics are likely to cause goals to be more rather than less compatible but will not ensure they are completely compatible. Indeed, while Tillmar (2006) and Torre (2006) note that networks of rural entrepreneurs are based on the perceived need for cooperation in order to secure a mutually desirable end, Phillipson et al. (2006) suggests that successful networks must strike a balance between the individual and collective benefits of cooperation. Similarly, Peredo and Chrisman (2006) note that community-based enterprises depend on an assemblage of various material and social goals in which a balance must be struck between individual and collective outcomes. However, as long as the goals of network partners are not incompatible or ignored, some diversity can be healthy. Therefore, the key to goal compatibility is a relationship that recognizes and incorporates the needs of each network member and this depends on the nature of the social capital that exists among them.

Inclusive and permeable communities are more likely to foster the development of a blend of social capital that includes respect for differences and an ability to accept and adapt to change. Furthermore, the ability to focus on a process that channels conflict toward constructive discussions of both ends and means increases the chance that the negotiated goals of the network will take into account the individual goals of the entrepreneurs who join the network (Flora, 1998; Flora & Flora, 1993) and that untraded dependencies form a valid and valued collective asset (Huggins, 2000). Thus, the predisposition to accept differences, change, and negotiated ends increases the likelihood that goals will be perceived to be compatible, and such a predisposition is at least partially a consequence of an ESI that is inclusive, permeable, and tolerant of conflicting points of view.

> **Proposition 5:** Members of business networks in rural communities with social networks characterized by constructive conflict, inclusion, and permeability are more likely to accept a wider range of goals as compatible than members of business networks in rural communities with social networks that lack those characteristics.

Business Network Commitment in Rural Communities

As mentioned earlier, the proportion of strong to weak ties may be expected to be high in rural communities. Strong ties suggest high levels of emotional intensity, identification intimacy, and reciprocity amongst community members (Granovetter, 1973; Westlund & Bolton, 2003). Therefore, bonding social capital is likely to be highly developed in a rural community. This community-level social capital offers the opportunity for coordinated action, collective risk taking, and access to a variety of resources including knowledge and labor (Coleman, 1988; Larson & Starr, 1993; Peredo & Chrisman, 2006). In addition, members of a highly embedded network will tend to stay within particular behavioral guidelines to reduce the possibility of sanctions and to permit access to available resources (Granovetter, 1985). These motivational and deterrence factors tend to increase commitment, which is a key factor in the success of a business network (Elmuti & Kathawala, 2001; Newman, 1992). As noted, this relatively intense form of social capital will need to be balanced with an appropriate level of bridging connections, and that balance will need to be adjusted as businesses and business communities mature. But beginning with the resources available in communities with strong bonding social capital constitutes a distinct advantage.

However, the basis of commitment is also important. Thus, commitment based on emotion, identification, or obligation appears to be associated with cooperation and change, whereas commitment based only on the perceived costs of dissolving a relationship is not (Herscovitch & Meyer, 2002). As noted earlier, communities characterized by ESIs that are inclusive and permeable offer greater access to the resources needed for business network formation and a larger range of potential partners with whom an entrepreneur will have had prior contact. The trust formed from previous social affiliation with potential network partners in a community leads to a strengthening of identification and obligation, while the broader range of potential network partners suggest the networks that are formed are likely to be based more on the opportunities networking provides rather than a lack of alternatives. Inclusiveness and permeability also suggests that entrepreneurs from different social strata and backgrounds will be able to work together (Flora et al., 1997), which should make partners less prone to relational risk and the exploitation of power asymmetries.

When constructive conflict is condoned commitment is further promoted. The opportunity to focus on process and arrive at mutually agreeable ends is expected to lead to a business network that reflects the voices of all members, which will increase their identification with the network. Furthermore, if there has been a negotiated process used to develop a network this should increase the feeling of obligation among partners. Hence, when values of inclusion, permeability, and constructive conflict are inculcated throughout the ESI of a community the members of rural business networks should be more committed to the preservation of the network and less likely to act in a way that could damage its fabric. Thus, we propose:

> **Proposition 6:** Members of business networks in rural communities with social networks characterized by constructive conflict, inclusion, and permeability are more likely to exhibit stronger commitments than members of business networks in rural communities with social networks that lack those characteristics.

Economic Impact of Business Networks in Rural Communities

Thus far we have argued that rural communities with ESIs that promote inclusion, permeable boundaries, and constructive conflict are more likely to develop business networks, and that the networks developed will be more likely to possess highly committed partners with compatible goals, who are able to communicate effectively. As we have explained, these attributes seem particularly important because the literature suggests that they will increase the probability of network success (Elmuti & Kathawala, 2001; Monczka et al., 1998; Newman, 1992).

The factors just mentioned could give rural communities access to the levers that appear to promote genuine development. Jacobs (2000) argues convincingly that economic development is simply an example of natural development. It involves specializations and combinations of activities to produce innovative products or services that are differentiated from more general products or services of a similar type. This process relies on a sequence of codevelopment where particular kinds of innovations based on specialization encourage other specialized innovations to spring up alongside them. Thus, business networks can expand the ways in which a community can innovate from limited resources, partly by cooperation but also by stimulating the emergence of new and complementary enterprises.

There are two avenues for innovation in rural communities that appear promising and these avenues are not mutually exclusive (see Figure 1). First, opportunities exist to export products or services to customers. Such opportunities are especially attractive when unique local resources are important, production in a rural setting increases marketability, and transportation costs represent only a small proportion of value added (Beyers & Nelson, 2000; North & Smallbone, 2006).

A second and potentially broader source of opportunities is the "countryside capital" found in rural communities that can lead to an influx of new customers (Garrod et al., 2006). Countryside capital consists of the stock of rural resources embedded in the landscape, biodiversity, historical structures, local customs, quality of life, and other amenities of a community. Aside from the obvious possibilities of tourism related ventures (Drabenstott, 2003), countryside capital is an important factor in attracting new residents of all ages. Indeed, Beyers and Nelson's study of four rural communities in the western United States suggests that quality of life migrants were an important component of the economic development of those communities. Aside from increasing the demand for goods and services, the ability to attract new residents can increase the human capital pool, lead to the development of new ventures, and stimulate a chain of investments in the community (Beyers & Nelson; Keeble et al., 1999).

Interestingly, there is also evidence of a high degree of connectivity between contiguous communities; developments occurring from tourism and quality of life migrants in one community tend to have positive spillover effects on the development of other communities (Beyers & Nelson, 2000). Thus, the ability of a community to import customers through the utilization of countryside capital can create a complex sequence of developments involving rising consumption, demands for new goods and services, the creation of new ventures, and corollary opportunities for the surrounding area. Furthermore, such successes are likely to foster imitative efforts and new business networking opportunities.

For example, in several rural communities in the delta region of Mississippi, including Washington, Bolivar, and Tunica counties, landowners have pooled their properties to create recreation and hunting preserves, an example of putting a general resource to a specialized use to create a business network designed to import customers. Such land pools involve lease agreements and partnerships to operate recreational enterprises between adjacent landowners. In an effort to increase marketability, complementary alliances with local inns and bed and breakfast operations have been initiated. New ventures and business networks (e.g., outdoor equipment stores) have been created to support these enterprises and their clientele.

As another example, in Tunica County a casino operation saw the potential of attracting customers traveling to the area for recreation and hunting to the casino by creating a sporting clay pigeon shooting center. The casino has formed complementary business networks with several adjacent recreational enterprises by positioning itself as a place to stay when not hunting, fishing, or engaging in related recreational activities. Networks of this nature have increased the ability of the recreational enterprises to attract customers without substantially increasing their marketing expenses or requiring them to invest capital to build a lodge or open a restaurant.

As suggested earlier, the success of business networks in rural areas should be expected to have positive spillover effects, creating opportunities and encouraging entrepreneurs in other communities to imitate their success (Keeble et al., 1999; Peredo & Chrisman, 2006; Rosenfeld, 1996). Furthermore, if the early exemplars, and the imitators they inspire, increase the overall level and cultural acceptability of entrepreneurship in a rural community it is likely to have a long-term impact on the rate of entrepreneurship in that community (Minniti & Bygrave, 1999). Thus, opportunities for entrepreneurship in rural communities may be multiplied when business networks are formed to produce products or coordinate the delivery of services with local content that can be exported or that can attract new customers to the community. Networks that build on these opportunities may be a key to a durable form of economic development that can evolve and expand to include a larger part of the community and surrounding region. As noted, communities characterized by inclusion, permeability, and tolerance for constructive conflict seem particularly well suited for the development of such networks.

> **Proposition 7:** The economic impact of rural business networks should be positively related to the extent to which those networks allow and enable their members to capture opportunities to export local production or import customers.

> **Proposition 8:** Successful business networks in rural communities are expected to foster additional business networks and new venture creation within those communities and within or between contiguous communities.

Discussion and Conclusions

In this article, we integrate the literature in entrepreneurship, sociology, and regional development to offer a nuanced perspective on the ways the social capital of a rural community may be configured to promote or retard business networks and economic development. We argued that the extent to which the social structure of a rural community allows for constructive conflict, inclusion, and permeability will influence the formation of business networks. We further suggested that those community attributes influence the extent to which members of business networks are able to communicate, develop goals that are perceived to be compatible, and achieve commitment. We focused on those characteristics because previous research indicates they are important for network success (e.g., Elmuti & Kathawala, 2001; Huggins, 2000; Johannisson et al., 2002; Keeble et al., 1999). Finally, we outlined the two primary routes by which economic development of rural communities might occur and then explained how the exploitation of such opportunities by the members of business networks might create additional entrepreneurial opportunities through codevelopments and spillovers. This offers the possibility of amplifying the process of innovation and generating durable business networks that can contribute to the entrepreneurial climate of a rural region. Together, these theoretical components contribute to our understanding of the advantages and challenges facing rural communities in forming and exploiting business networks. Future research in the United States and comparative research across regional and national boundaries are now needed to determine the extent to which these theoretical arguments are valid.

A question we have not addressed in this article is why the potential of rural areas for productive business networks has not been more fully realized. The somewhat scattered and spotty occurrence of rural business network formation in the United States appears to suggest the importance of triggering events, such as the perception of a common threat or opportunity (Peredo & Chrisman, 2006). It also invites the question of whether policies may be formulated to foster the processes we have outlined in this article. The largely theoretical focus of this article does not support detailed policy proposals. We believe it does, however, suggest a research program that will inform public policy discussions.

First, more research is needed on soft and hard business networks. There are suggestions in the literature as to which form is easier to develop in rural settings, what the dynamics are of their development and interaction (see, e.g., Rosenfeld, 1996, 2001), and which form has the most impact on individual firms and on entire regions (e.g., Sommers, 1998). One distinct possibility emerging from this article is that different business networks may be appropriate for rural communities in different stages of social and economic development. For example, entrepreneurs in insular rural communities with high levels of stratification that lack the ability to engage in constructive conflict may benefit more from soft networks in order to begin to develop the bonding and bridging social capital necessary for the formation of successful hard networks. In any event, much more research needs to be done and the distinctions between networks will have to be kept in mind in framing policy to fit a community's unique situation.

Second, Rosenfeld (1996) has suggested that two significantly different models, the Danish and the Italian, have been employed in the United States and elsewhere in an attempt to foster the development of business networks. The so-called Italian model is framed on the understanding that there are already traditions in a region whereby cooperation is seen as compatible with competition, and there is already some associative activity among firms in the area. In such situations, the stimuli usually applied are in the form of incentives to regional trade organizations to increase the levels of trust and cooperation among members, and/or the establishment of regional hubs for particular sectors. The general idea is to further develop a culture that is already present to some degree, in the belief this will lead to the desired network formation. The Danish model, on the other hand, is framed on the understanding that the candidate region does not possess the depth of cooperative culture that gives rise to well-developed business networks. The idea here is to begin by fostering cooperative activity on the assumption that as it develops it will create or amplify the cooperative culture. Favored means include the use of scouts and brokers to identify and facilitate promising areas for rural business network formation and modest incentives for firms to participate. The relative effectiveness of these approaches, and especially the utility of scouts and brokers, which Rosenfeld suggests have been a key to success in several areas, demands careful study.

Third, a related question emerging from this article that requires consideration is what happens when business networks or the social and economic environments in which they are immersed evolve? How networks adapt to changes in the business environment and what these changes may do to the commitment, communication, and goal congruence of network members are important research questions. For instance, if new opportunities are created and new resources become available as a consequence of economic development, will network members be able to maintain their commitment to existing cooperative arrangements that were based on overcoming resource limitations? And would it indeed continue to be advantageous for the citizens of rural communities for the local networks to do so? The matter of what network forms at what stages offer the greatest economic development advantages needs further study.

Fourth, we have also raised the possibility that successful business networks in rural areas will have spillover effects in their communities and beyond. The impact of business networking in Emilia Romagna and Baden Wurtemburg have clearly led to attempts in other locales to encourage networking. Trade organizations in Ireland have noted that as of 2005, there were at least 110 business networks functioning in Ireland, with 81% of them established in the previous five years (Inter*Trade*Ireland, 2005). It seems clear that business networking, where it occurs, frequently has an impact that extends beyond the local area. When and why such spillovers occur needs to be addressed, as does the short-term and long-term impacts. The results of this research can be expected to have important implications for public policies and programs.

Fifth, there is the question of how much resources and how much time are necessary before efforts at rural business networks begin to pay off. For example, both Rosenfeld (1996, 2001) and Sommers (1998) have undertaken limited evaluations of rural business networks in the United States. While their findings are far from conclusive, both insist that the levels of funding and the duration of the programs (3 years or less) have been a strong factor in their indeterminate impact. By contrast, the Danes, who have devoted considerably more time and money to these programs, are said to have experienced far clearer evidence of success (Rosenfeld). Another question, then, that will need to be addressed is the level of resource and time commitments required for rural business networks to generate economic benefits for its members and their communities. Comparative research on network stimulation programs and business networks in general within and between the United States and other countries (e.g., Denmark, Germany, Australia, Great Britain, Portugal, Spain, New Zealand, and Canada) will be needed to fully address this important point.

Finally, there are additional matters underlying the construction of sound policy that have even deeper implications for research. Fundamental questions that emerge from the limited studies undertaken of business network activity are (1) what is success, and (2) how is success to be measured (Rosenfeld, 1996)? For example, Rosenfeld (2001) notes that while sponsoring agencies may be interested mainly or entirely in such things as jobs created and income generated, many of those actually involved in business networks may be at least equally interested in learning and benchmarking. In a survey of network members' satisfaction, Welch, Oldsman, Shapira, Youtie, and Lee (1997) found that more than a dozen factors were considered important to business network participants. Only one of those explicitly dealt with profitability. The matter of what constitutes success and how to measure it are fundamental in developing policy concerning the stimulation of rural business networks.

In conclusion, we contribute to the entrepreneurship literature by focusing on social attributes of rural communities that influence the formation and development of business networks as well as the opportunities for innovation that can contribute to economic development. Relatively little attention has been paid to these issues in the entrepreneurship literature and few studies have been conducted in the United States. We hope that the theoretical discussion presented in the article will inspire more attention to this neglected area of study.

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