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COMMUNITY CAPITAL AND LOCAL ECONOMIC DEVELOPMENT EFFORTS

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Abstract
Actions by local groups and leaders constitute an essential but poorly understood element of many rural economic development efforts. Previous studies suggest that local development efforts can influence community changes, but questions remain about why localities differ in economic development efforts. Drawing upon community capital framework and human ecological theory, the purpose of this research was to examine the effects of community capital on economic development efforts in rural communities. Hierarchical regression results indicate that social capital, cultural capital, built capital significantly predict economic development effort to develop recreation and tourism and human services. Despite that, only built capital and natural capital predict effort to develop local business and industry – a keystone of rural development. Hypothesis that community capitals would predict economic development efforts than would be predicted by ecological variables alone was borne out.

Keywords: Community Capital, Community Development, Economic Development, Rural Communities

Introduction
The literature on rural community development, along with pressure on residents of small communities and government officials to respond to rural problems, has increased in recent years. This increased attention to rural issues has produced new insights into some aspects of community economic development efforts but has left many questions unanswered, especially about local mobilization and decision making. A community capitals approach, a current theme in rural policy (Crowe 2008a; 2008b; Crowe and Smith, 2012; Flora and Flora, 2013; Green and Haines, 2008; Putnam 1993), remains a relatively neglected topic in comparative research. Research on community capital according to reviews of recent literature (Zekeri, 2012), includes many case studies but few comparative analyses. Much remains to be learned about how and why small towns and rural areas vary in extent of mobilization to achieve development goals.

One promising line of research on local action concerns the effects of distinctive sociological characteristics of communities, such as community capital (Crowe, 2008a, 2008b; Flora and Flora, 2013; Zekeri, 2012) on the probability of community development efforts to respond to current issues (Zekeri, 1999; 1997; 1994). Many efforts to build local action capacity assume that interactions that produce community capital can contribute to the ability of community residents to take collective action again and again as the needs or opportunities arise (Green and Haines, 1998; Crowe and Smith, 2012; Putnam, 1993; Zekeri 2010).

This study examines economic development efforts in three different areas of local life in a sample of small localities in rural areas. Taking into consideration the effects of ecological differences among communities, the aim is to assess the importance of community capital variables
in explaining economic development efforts. In pursuing this aim, the study draws upon two theoretical approaches to the study of communities, namely community capital framework (Crowe, 2008a, 2008b; Crowe and Smith, 2012; Flora and Flora, 2013; Green and Haines, 2008; Putnam, 1993), which emphasizes asset building characteristics of the community and human ecology (Hawley 1950; Murdock and Sutton 1972), which emphasizes structural factors such as population size, location, affluence and sustenance organization. Using the ecological factors as controls, the analysis estimates the effects of community capital variables on selected economic development efforts. Although several scholars have examined the effect of one or more community capitals on economic development efforts (e.g. Crowe, 2008a; 2008b), few studies examined the full array of capital with respect to economic development.

**Conceptual Framework**

Charles Tilly’s (1973) question, “do communities act”; has long been of great interest to community sociologists, and is in fact a question about the persistence of the local community as a unit of mobilization in an increasingly global society. Clearly, much action occurs in localities, but is it - or can it be - the community that mobilizes? Tilly’s answer is a much qualified “yes.” They better act because with the continued devolution of power and resources from state-and federal-centered to locality centered institutions, rural places are increasingly left to depend on their own resources to survive. Urbanization of the world, Tilly says, has made community action pretty much a thing of the past by reducing the significance of attachments to specific localities and increasing the importance of alternative bases of collective organization and identity. Still, his argument suggests, in essentially rural settlements that have a history of community capital and face severe threats to territorial autonomy, economic development efforts to resist or counter trends in the larger society might occur. At least during the transition period before these societal trends deplete the local capital that makes collective action possible. Thus, following this argument, one could expect economic development efforts to occur to varying degrees in small communities in distress and to vary positively with level of community’s capital (Crowe 2008a, 2008b; Flora and Flora, 2013; Green and Haines, 2008; Putnam, 1993).

The Community Capitals Framework (CCF) offers a new way to analyze community economic development efforts (Flora and Flora 2013; Green and Haines, 2008). Others using the CCF had determined that increase in specific assets (capital) is helpful to the community. In terms of economic development efforts, a well-connected community (that is, one with community social capital) should be better able to mobilize local and extra local resources to effectively act, and indeed, this idea has been empirically supported (Putnam 1993). Community field theory (Kaufman 1959; Wilkinson 1991) endorses this hypothesis but goes further than Tilly’s argument by maintaining that the community, as a field of locality-oriented interactions, can persist in virtually any locality, rural or urban, where interaction in daily living occurs, even in the face of encroachment of the larger society and culture. From this viewpoint, community is a structure of relationships created and molded by the place-oriented social interactions that occur as people in a locality meet their daily needs together and express their common interests in the local territory. Interaction in daily living sparks common interests and builds mutual identity and commitment, even among people who have little else in common. Actions expressing community interest can contribute to the creation of development organizations, leadership skills and roles, and shared
sentiments among local residents. These products of community capital can animate the community time and again, as need arises. This central proposition of community development theory supports the hypothesis that economic development effort varies positively with community’s capital.

Human ecology, as developed by Hawley (1950; 1986) and elaborated by many others offers a different but not entirely contradictory viewpoint. An ecological approach also recognizes capability and community capital as activating forces but sees these mainly as consequences of locality structure and ecological processes rather than as expressions of mutual identity and commitment built up through social interactions. Human ecology does not challenge the community capital theory approach so much as it offers to absorb it (Murdock and Sutton, 1974) into a larger but more deterministic framework. Hawley (1986, p. 27-28), in particular, seeks to reconcile the system concept of the ecological entity with the field concept of interacting forces. As articulated by Hawley, human ecology explains economic development efforts as a response of the sustenance organization of a local population to changing environmental conditions. Adaptive capacity – the ability to mobilize in response to environmental and economic changes – increases with size, structural differentiation, access to outside resources, and affluence of local population (Clark, 1968). In human ecological reasoning, structure and need (e.g., poverty), not community’s level of capital, account for economic development efforts. Community capital might be involved, but as consequences rather than as causes of adaptive capacity. From the perspective of human ecology, therefore, controls for ecological factors should obviate any independent contributions of community capital variables to the explanation of economic development efforts.

Community capital theorists and human ecologists agree that capability and need affect the probability of economic development effort but disagree on the role of community’s level of capital and volition in explaining capability. Community capitals framework sees a community’s level of capital as indicative of shared purpose or agency, a force in its own right in community development, and human ecology sees the effects of community capital as epiphenomenal to the effects of structural characteristics of the local population. One key question for analysis, therefore, is do community capital variables contribute significantly to an explanation of local economic development efforts after the effects of ecological variables have been taken into account? The author’s goal is to contribute to the body of knowledge regarding the potential effects of community capital.

Methods

The research question is addressed with data from a larger study of economic development in the heavily forested areas of Pennsylvania. The larger study examines local changes in the most rural regions of the state, defined as the 35 counties with over half their land in unreserved forests. The unit of analysis within these heavily forested counties is the school district. Data for a random sample of 120 school districts, stratified to ensure heterogeneity by location (eastern and western portions of the state) and population size, provided measures of community capital and other characteristics of essentially rural localities.

A mail survey of key informants in the selected school districts is the source of the data for the dependent variables. Five knowledgeable informants selected by procedures used in previous comparative studies of local action (Zekeri, 1999, 1994; Zekeri et al, 1994). A telephone conversation with a municipal officer in each school district identified those selected from among
reputedly well-informed occupants of the following positions: a newspaper editor; an elected official; the chair of a local real estate board; the chair of a chamber of commerce or director of an industrial development group; a bank president; and the chair of a local planning board. Most of those identified reside in the largest municipality in their school district. Mail questionnaires (539), following Dillman’s (2002) method, were returned by 72 percent of the selected informants.

In the questionnaire, respondents were asked whether individuals or groups in the school district had undertaken any of a list of specific economic development efforts. Included in the analysis are efforts in three more or less distinct categories, namely efforts to develop local business and industry, recreation and tourism, and human services. The business and industry efforts include the following: organized a committee to seek new business or industry; advertised the community in magazines or newspapers; hired consultants to help with growth promotion; developed an industrial park or commercial center; changed zoning to increase availability of land for industrial or commercial use; systematically developed and maintained contacts with leaders in industry outside the area; applied for financial assistance from county, state or federal government to expand business and industry; sought investments from corporations and others to expand business and industry; used adult education programs to help promote economic development; and worked with executives to improve telecommunications in the area. Recreation and tourism efforts include attempts to create or expand the following: bed and breakfast accommodations; canoe or rafting rental services; camping facilities; historic site preservation; second home development; arts festival; ethnic festival; scenic area development; and motels. Human services efforts include attempts to create or expand the following: day care facilities; adult literacy training; services for the poor, handicapped, or elderly; and health services.

Use of multiple informants in each sample locality adds much needed breadth to the collection of relevant data for comparative community research (Krannich and Humphrey, 1986, p. 473), but this also presents a challenge when the different perspectives of the respondents result in disagreements about whether particular actions have occurred. Aggregation to a single score for the area based on the reports of whether the actions have occurred involves searching for at least a minimum degree of agreement among respondents. In this study, responses to specific items are aggregated by school district using a modal method. The aggregated value for a specific action is the modal value if either “yes” or “no” was the most frequent response. Lacking a mode, “yes” responses by at least two respondents are required for the aggregated value to be recorded as “yes.” The number of aggregated “yes” responses in each category indicates economic development efforts.

Community Capital

Following previous research (Crowe, 2008a, 2008b; Crowe and Smith 2012; Flora and Flora, 2013; Green and Haines, 2008; Zekeri 2012) community capital in this analysis include social, cultural, built, and natural. Social capital measures for the analysis refer to evidence of networks and roles that emerge in local social interaction and persist as social relationships that could influence collective mobilization. Scores of 0-4 on this indicator refer to whether the localities had initiated a home rule study commission, applied for a nonallocated federal grant, established a local planning board, or passed a local zoning ordinance. Following the work of Crowe (2008a, 2008b) cultural capital refers operationally to presence in the locality of facilities,
groups, and events that express local identity. Scores of 0-7 on the cultural capital measure depend upon whether the locality has a central information or tourist center, a special welcoming sign, a central park or square, a community war monument, an adult community band, a facility for community gatherings, and a volunteer fire or rescue company. Built capital refers to evidence of a chamber of commerce in the community. Drawing on the research by Flora and Flora (2013), natural capital measure for the analysis refers to whether the community had an industrial park in the locality.

Controls for the analysis, treated here as a block rather than as individual variables, are indicators of structure, location, and need that have been used in many previous studies from the ecological perspective (Zekeriet al., 1994; Zekeri 2010; 1994; ) and are generally considered in the literature to provide a broad contextual characterization of a local population. They include data on population size (used in logarithmic form to smooth the distribution), distance (miles) to the nearest of four large metropolitan areas (Baltimore/Washington, New York, Philadelphia, or Pittsburgh), a three-factor index of socioeconomic status of the local population consisting of summated scores based on local educational, occupational, and income distributions weighted by the state percentile distribution), the percent of families in poverty, percent population change, percent of workers in manufacturing, and percent of workers commuting to jobs outside the school district.

Understanding how the ecological variables operate separately as indicators of capacity and need is of less concern to this analysis than understanding how they work together with community capital to predict economic development efforts. Thus, principal components factor analysis (orthogonal rotation) is used to reduce the seven ecological variables to three underlying factors (those with eigenvalues greater than 1.00). Variable loadings indicate that the first factor (accounting for 29 percent of the variance in the set) is dominated by low socioeconomic status (-.903) and a high poverty rate (.902); this is called an “impoverishment” factor and view it primarily as an indicator of need. The second factor (accounting for 21 percent of the variance) is called “remote industrialization” because of the dominant loadings of the percent of workers in manufacturing (.839) and distance from large cities (.740). This factor has implications for capacity, indicated by previous manufacturing development and need, suggested by the pattern of decline in the rural manufacturing sector. The third factor (accounting for 19 percent of the variance) combines a high percentage of workers employed outside the school district (.792) with small population size (-.699) and a high rate of population growth (.505) during the previous decade; this is called a “rural bedroom development” factor. The dominant variables in this third factor, signifying dependency and limited population size, imply need for economic development efforts but also restricted capacity to mobilize. Combined with previous growth, these loadings predict an overall negative effect of the “rural bedroom development” factor on economic development efforts. The factor scores are the control variables in analyses of the three economic development efforts.

Analytic Strategy

The analysis employs multiple regression methods. First, economic development efforts in each of the three interest fields is regressed on the predictors to determine what effects social, cultural, built, and natural capitals have beyond the effects of the ecological characteristics. The causal model is specified without any reciprocal causation, and the procedure of hierarchical
analysis described by Cohen and Cohen (1983) is used in a multiple regression analysis to estimate the effects associated with each cause.

A full hierarchical procedure for K independent variables consists of a series of K multiple regression/correlation analyses, each with one more variable than its predecessor. The increments in \( R^2 \) are the semi-partial correlation coefficients (s\( R^2 \)). The formula for the hierarchical procedure for a single variable is \( R^2_{Y.1} = r_{Y_1}^2 + r_{Y(2.1)}^2 + r_{Y(3.12)}^2 + \cdots + r_{Y(K.123\ldots K-1)}^2 \). Changes in variance explanation (s\( R^2 \)), evaluated for statistical significance with the F-test, indicate the unique contributions of community capital variables in the hierarchical design.

**Results and Discussion**

Table 1 gives the results of the hierarchical regressions. The lower panel of the table shows, first, the \( R^2 \) for the regression analysis with only the three ecological variables as predictors, then, the increments in variance explanation (s\( R^2 \)) that result from adding community capital variables as predictors, separately and then as a set.

The findings for business and industry, shown in the first column of the table, indicate that only built and natural capital influence local development efforts. The ecological factors alone account for 34.7% of the variance in these economic development efforts. This increases slightly when built and natural capitals variables were added, and the changes (2.8%) and (4.2%) were statistically significant. The only ecological significant predictor of efforts to promote local business and industry in this analysis is the factor labeled “rural bedroom development.” The effect of this factor, as expected, is negative. Communities with small population size, a large percentage of workers commuting to jobs outside the area, and a history of population growth are less likely than others to be active in promoting the development of local business and industry, irrespective of the other characteristics considered in the analysis.

Promotion of recreation and tourism (results in the second column of Table 1) is a different matter. For these economic development efforts, the ecological factors provide only a modest level of explanation (14.0%) of the variance. Adding social capital, cultural capital, and built capital to the equation increase the variance explanation and the increments are statistically significant except for that of natural capital. Natural capital has trivial, if any, effects on efforts to develop recreation and tourism.

A similar pattern is shown in hierarchical analysis of Human services development in Table 1. The ecological factors alone, account for only 7.6% of the variance in the dependent variable. The increments in variance explanations are statistically significant when all the community variables were entered into the equation except natural capital. There is little evidence that natural capital has substantial effects on economic development efforts in human services, net the effects of the other variables. Some community variables have significant effect estimates. Where symbols of local community capital such as social, cultural, and built are prevalent, the probability of economic development efforts to improve human services tends to be high.
Table 1. Hierarchical Regression Analyses of Economic Development Efforts in Business and Industry, Recreation and Tourism, and Human Service

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Business &amp; industry</th>
<th>Recreation &amp; tourism</th>
<th>Human service</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Impoverishment</td>
<td>.066 (.249)</td>
<td>-.069 (.197)</td>
<td>.061 (.105)</td>
</tr>
<tr>
<td>2. Remote industrialization</td>
<td>.156 (.248)</td>
<td>-.119 (.196)</td>
<td>.041 (.104)</td>
</tr>
<tr>
<td>3. Rural bedroom development</td>
<td>-1.896*** (.281)</td>
<td>-.823*** (.197)</td>
<td>-3.308* (.105)</td>
</tr>
<tr>
<td>4. Social capital</td>
<td>.479 (.311)</td>
<td>.629** (.242)</td>
<td>.268* (.130)</td>
</tr>
<tr>
<td>5. Cultural capital</td>
<td>.178 (.128)</td>
<td>.247** (.098)</td>
<td>.125* (.053)</td>
</tr>
<tr>
<td>6. Built capital</td>
<td>1.178* (.579)</td>
<td>.965* (.454)</td>
<td>.558* (.244)</td>
</tr>
<tr>
<td>7. Natural capital</td>
<td>2.128 (.757)</td>
<td>-1.051 (.588)</td>
<td>.127 (.321)</td>
</tr>
<tr>
<td>R² (Predictors 1-3)</td>
<td>.347</td>
<td>.140</td>
<td>.076</td>
</tr>
</tbody>
</table>

sR² (Social capital)                     | .014                | .050**               | .035*         |

sR² (Cultural capital)                   | .011                | .045**               | .043*         |

sR² (Built capital)                      | .028**              | .031**               | .040*         |

R² (Natural capital)                     | .042***             | .022                 | .001          |

*Statistically significant at the .01 level.
**Statistically significant at the .05 level.
***Statistically significant at the .01 level.
Conclusion

The results of this analysis contribute much needed refinement to previous understandings of why rural areas differ in economic development efforts. In a broad sense, the results support the hypothesis, which also is a widely endorsed principle in the community development literature, that community’s capitals increase the probability that groups and individuals will take actions on economic development issues. The findings show clearly that community capitals give a better explanation of the variations in economic development efforts in this study than do the ecological variables. These support the argument that community capital and not the long-standing ecological characteristics alone will influence economic development efforts.

From a practical standpoint, the findings encourage efforts to initiate local actions and develop or maintain symbols of local identity. These can play an important role in the future, even if not immediately, as residents seek to attain shared goals. By the same token, however, the findings suggest that such efforts are effective only in combination with certain ecological characteristics, such as critical mass of population and employment opportunities that undergird the maintenance of a local society. Without a local society, according to statements of the interactional perspective (Kaufman 1959; Wilkinson 1991), development of a generalized community field of actions is unlikely. Still, the evidence that community capitals have effects that are not accounted for by ecological variables suggests that even meager efforts to stimulate community capital can have long-term consequences.

Much of the variations in the economic development strategies examined here remain to be explained. The challenge for future research is to identify other variables that make a difference in economic development efforts. How active a community is in solving old and new problems could make a difference. Results of this study, in brief, should be viewed only as a first step in comparative research on community capital and economic development efforts in rural areas.

Policy Implications for Rural Communities and Development Practitioners

The goal of this paper was to examine the effects of different forms of community capital – social capital, cultural capital, built capital, and natural capital- on economic development efforts. Findings indicate that all significantly predict economic development efforts separately. Communities that are most successful at economic development efforts, in fact, do need community capitals.

Implications of the findings for community development in the 21st century are many. First, consistent with other research findings (Crowe 2008; 2009; Green and Haines 2008; Putnam 1993), community capital matters when it comes to successful economic development efforts. An implication for community development practice, then, is to promote social connections among residents and across groups with access to diverse resources, particularly, cultural, built capital, and extra-local linkages. Successful economic development efforts are less likely in their absence. Second, both local and extra-local ties support economic development efforts. Local relationships demonstrate the commitment of local residents to their community and connection to the outside world (bridges) provided useful links to outside resources and opportunities. Isolated communities need to develop community capital to engage in community action. Once residents determine the kind of economic development efforts they most likely want to foster, they would then know if they should depend primarily upon their strengths, or if they should seek to shore up the ties they are
lacking. Community development practitioners could assist in building local ties, particularly in communities that are divided. Economic development efforts involve generating resources, within and beyond the community. It is not sufficient to be rich in resources; rural communities need an ethic of individual investment for collective improvement and means to mobilize organizational resources. They need to create social capital – civic norms, increased trust among residents and with outside agencies, and expansion of networks of interaction and shared information to address economic development efforts and environmental challenges in the 21st century.

References


