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Volume 24, No. 1
1993

Chava Frankfort-Nachmias
J. John Palen

Neighborhood Revitalization and The Community Question

Ruth C. Young
Joe D. Francis

The Role of Self Help, Private Help, and Community Assistance for Small Manufacturing Firms

Fern K. Willits
Donald M. Crider

Pennsylvanians View Economic Development: A Ten-Year Perspective

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Assessing Local Industrial Development Potential

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Importance of Community Ethnic Background in Community Activeness

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Frank Akpadock

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Reviewed by Rachel Warren, University of Minnesota  
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A CALL FOR PAPERS

25th Anniversary Edition of the
Journal of the Community Development Society
“What We Have Learned”

As a way to commemorate the Community Development Society’s 25th anniversary, the Society will publish a special 25th edition of our Journal. Volume 25, No. 1 will contain papers written according to the theme “What We Have Learned.” The goal is to share important insights that people have gained in doing community development work over the past quarter century. The papers may span the spectrum from theory to problem solving; they may range from practical to academic. The research design may be experimental or a case study. Papers are limited to 20 pages.

We invite you to share what you have learned. What insight have you gained about community development that would be most useful to colleagues in the profession? And how can you write about your insight in ways that will attract and teach a reader? That is your challenge!

Authors should follow the instructions displayed on the inside of the back cover of the Journal. Papers should be sent to the current editor of the Journal, Bob Blair. The Special Editors the Anniversary Edition—Bob Blair and Jerry Hembd—will accept papers received on or before November 1, 1993. The papers will then be reviewed by a committee of peers. Final papers will be published in the Journal in the summer of 1994.

We encourage you to reproduce and share this call for papers with other colleagues involved in community development work. Your paper and those written by your colleagues should be sent to:

25th Edition
Robert Blair, Editor
Journal of the Community Development Society
Center for Public Affairs Research
University of Nebraska at Omaha
Omaha, Nebraska 68182
EDITOR'S NOTE

The readers of the *Journal of the Community Development Society* have a wide variety of interests. This is not surprising since the members of the Community Development Society come from many disciplines and have different interests in community development. Some are practitioners, others are educators, and many are researchers. Often, they have all three functions in community development. The editors should attempt to meet the needs of all the members of the Society and the readers of the *Journal*.

At the same time, it is the purpose of the *Journal* to “disseminate information on theory, research, and practice,” in the field of community development. This dissemination of information is only effective when done in an orderly and logical manner. In other words, articles should contribute to the existing base of knowledge on community development. This is done by insisting that potential articles have at a minimum, a research question, a set of data (that may include case study information), and an acceptable method of analysis.

The job of the editor then is to meet the needs of the readers and to ensure that published articles expand our knowledge of community development. In order to meet this dual responsibility, and to better serve the needs of the readers, this edition and future editions of the *Journal* will divide the articles into those that have a research (or theory) focus and those that have a practitioner focus. It is important to remember that in many cases articles have a focus on both research and practice. The placement of the article into the appropriate heading will depend on the author's conclusions. If practitioners are able to use the findings directly in the field, then the article is a practice piece. Those articles that do not fit that category become research (or theory) pieces.

Inside the front cover of the *Journal* are the names of those individuals who are members of the Editorial Board. These individuals review several manuscripts a year, recommend other peer reviewers, and help guide the direction of the *Journal*. The editors thank them for their time and effort. Anyone interested in being considered for the Board or reviewing manuscripts is encouraged to contact the editors. In addition, the editors are always ready to consider new manuscripts and welcome ideas for potential articles.

And finally, the editors want to recognize and thank those individuals who have taken the time to review manuscripts. Not enough can be said about their contribution to the *Journal*. Those individuals include the following:
John Allen
David Ambrose
Harold Baker
Peter Bleed
Nan Booth
Timothy Borich
Robert Chambers
Bev Cigler
Robert Collin
Alan Connor
David Darling
Jerry Deichert
Paul Denise
Dennis Domack
Merrill Ewert
Phil Favero
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John Quinn
John Rohrer
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Your editors,

Robert Blair, Managing Editor
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University of Nebraska at Omaha
NEIGHBORHOOD REVITALIZATION AND THE COMMUNITY QUESTION

By Chava Frankfort-Nachmias and J. John Palen

ABSTRACT

This study addressed the question of whether the community exists as a meaningful social entity in modern urban society by examining neighborhood participation patterns and degrees of neighborhood attachment in a revitalized neighborhood. The research examined the effects of informal networks and participation in local organizations on resident’s neighborhood attachments. Differences were found between long-term residents and newcomers, and renovators and non-renovators. Long-term residents were integrated into the social network of the neighborhood. Long-term residents who were renovators were also active in neighborhood organizations. Newcomers, whether renovators or not, were not integrated into the local network but newcomer renovators were highly active in local organizations.

INTRODUCTION

This study attempted to address “the community question” by examining patterns of participation in neighborhood life and degrees of neighborhood attachment in a revitalized neighborhood in a large midwestern city. “The community question” is whether the community exists as a meaningful social entity in modern urban society (Wellman, 1979; Connerly, 1985). The classical approach argues that urbanization, industrialization, and bureaucratization have resulted in a loss of community in the neighborhood, where personal ties have been replaced by secondary ties. A much-cited description of this process is Wirth’s thesis:

The distinctive features of the urban mode of life have often been described sociologically as consisting of the substitute of secondary for primary contacts, the weakening of bonds of kinship, and the declining social

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This view of the unattached urbanite, free and without local neighborhood ties, has been referred to by critics as the "community lost" hypothesis (Hunter, 1975).

According to a more recent approach, this perspective is flawed because it equates community with neighborhood; "community without propinquity" is possible (Wellman & Leighton, 1979) because space no longer constricts movement and communication. Yet the definition of community only in terms of interpersonal or friendship ties neglects other dimensions common to definitions of community. Although the neighborhood makes only partial claims on residents' social ties, various community, economic, political, and socialization functions continue to have a basis in propinquity. Hence it seems more accurate to describe the neighborhood as a community of "limited liability" in which a resident's community can be liberated from the neighborhood, but in which liability also varies with the resident's status attributes and with the type of community function (Greer, 1962; Janowitz, 1952).

Not all students of the city agree with this interpretation. A number of community case studies, such as those conducted by Whyte (1942), Gans (1962), Liebow (1967), and Suttles (1968), suggest the persistence of friendship, kinship, and associational life in the neighborhood. These studies focused on homogeneous working-class ethnic or racial neighborhoods, characterized as "defended neighborhoods" and attempting to ward off internal and external changes (Suttles, 1972).

Recent studies describe another emerging type of community that shares characteristics of both defended and limited liability neighborhoods. This type of community has been described as "organizationally dependent" because patterns of participation in the neighborhood and attachment among residents are more a function of participation in local voluntary associations than of informal social networks (Crenshaw & St. John, 1989). The "organizational community" has developed within neighborhoods in response to a more complex environment in which residents who are not closely connected to each other create voluntary associations to mediate between their neighborhood and its environment, to defend against the city, to ward off external threat, and to form a foundation for residential cohesion.

An organizationally dependent community is likely to emerge where there is a substantial turnover in population and/or when the pop-
ulation mix is racially, ethnically, or socioeconomically heterogeneous (a situation that discourages the formation of informal networks), and where an external threat to the viability of the neighborhood requires some action. Several studies suggest that neighborhood heterogeneity need not lead to a decline in community (Hunter, 1975; Majka & Donnelly, 1989). In diverse neighborhoods, especially where neighborhood organization is strong, the community is “socially constructed” not necessarily by a local network but by many residents’ ideological identification with the urban lifestyle, which the neighborhoods represent, and by a high level of participation in local organization. These studies represent an exception to the literature on community, which emphasizes that neighborhoods provide a base for local friendship and neighboring only in homogeneous neighborhoods (e.g., Fischer, 1982; Wellman, 1979).

More recently the “organizational community” thesis has been “tested” in gentrifying neighborhoods undergoing private renovation by middle-class and upper middle-class households (Crenshaw & St. John, 1989; Palen & London, 1987). Gentrified neighborhoods combine features of limited-liability communities and of defended neighborhoods (Suttles, 1972; Crenshaw & St. John, 1989). New residents tend to be middle- and upper middle-class professionals who may not be well integrated into the social network of the neighborhood, and who view their property purchase as a rational financial investment. On the other hand, renovators share some of the characteristics typical of residents in defended neighborhoods. They identify with the image of the neighborhood as having some unique feature, are aware of its boundaries, and (given the inner-city location of the neighborhood) face common threats (Palen & London, 1987). Rather than relying on local social networks, however, these residents seek neighborhood associations as a source of cohesiveness and integration, and as a means of mediating between the neighborhood and the environment.

Crenshaw and St. John (1989) found that renovators were more likely to fear undesirable change in neighborhoods and that the perceived threat was related positively to participation in local formal organizations. Participation, in turn, sometimes was related positively to attachment to the neighborhood. These authors argue that in renovated neighborhoods the combination of external threat and weak informal ties leads to a more highly developed and more active neighborhood organization, which serves as a basis of residential community.

In this study we elaborated further on the mechanism that enhances neighborhood attachment. We examined the conditions in which
residents’ sense of belonging and attachment derives from primary connection to a neighborhood social network, as a result of participation in local formal organizations, or both. We argued here that local organizations may provide a substitute for informal networks for new residents, for whom structural sources of connection are absent or weak (Crenshaw & St. John, 1989). Neighborhood organization, however, also will enhance attachment for long-term residents who do not lack informal ties.

Another important question is the link between revitalization and/or community attachment on one hand and gender and age on the other. Females’ participation in the labor force has become a hallmark of the contemporary city; women occupy almost two-thirds of all the new jobs created over the last decade in large cities (Clark, 1990). Nonetheless, urban studies generally have supported the importance of close ties and neighborhood for women (Fischer, 1984). Urban research also would suggest differences by age. Being young is associated with a footloose existence and with weakened social commitments (Fischer, 1984). Older residents are more likely to have longer-term commitments to an area (Kasarda & Janowitz, 1974).

Earlier studies of neighborhood organization and “the community question” focused on younger, better-educated, middle-class residents and newcomers, who tend to be more active (Davidson, 1980; Stephens et al., 1982). Unlike previous research, the present study tests the community question in a revitalized working-class neighborhood in a large midwestern city. The continuing working-class nature of the neighborhood investigated here sets this research somewhat apart from studies dealing with gentrifying neighborhoods. Most discussions of urban revitalization tend to concentrate on formerly elite housing areas of some architectural and perhaps historic merit, which are being restored to their former glory. Such areas, however, are only a small fraction of any city’s housing stock. Most neighborhoods in most cities are more plebian, and the fate of these numerous working-class “gray areas” will determine the future of the city as a place of residence.

In neighborhoods where gentrification has not occurred but nonetheless have experienced upgrading and rehabilitation, the term “incumbent upgrading” is usually used. Upgraders, especially old-timers, are characterized as older individuals who are likely to be ethnic and non-upwardly mobile members of the working-class. By definition, such incumbents have a considerable temporal, as well as economic, investment in the neighborhood. These neighborhoods, which have some of the characteristics of the “defended neighborhood” described by Suttles (1972), continue to share a common physical and
social environment, and, because of their inner-city location, a growing perceived external threat. Especially for long-term residents, informal ties in the neighborhood continue to be important.

Newcomers to these neighborhoods, especially renovators, tend to be younger and more affluent, and to lack social ties. For these residents the neighborhood depends more strongly on organizations; participation in local organizations determines attachment.

HYPOTHESES

Several major and corollary hypotheses were tested in this study. The first hypothesis was that because newcomers have weaker informal networks in the neighborhood, they are more likely to join local organizations than longer-term residents. In addition, because of their investment in the neighborhood, newcomers who are renovators will have a higher level of organizational participation than non-renovating newcomers.

The second hypothesis posited that long-time residents are more likely to have informal ties in the neighborhood and that long-time residents who are renovators will also participate in local organizations. A corollary hypothesis was that both organizational participation and informal ties have an independent direct effect on neighborhood attachment, and that residents who have informal ties who also participate in local organizations will demonstrate the highest level of neighborhood attachment.

Finally, we hypothesized that women will demonstrate a higher level of community attachment and involvement than men, and that older persons will be more involved than younger persons. These hypotheses are depicted in Figure 1.

DATA AND SAMPLE

The data reported here were gathered as part of a project designed to examine the nature, processes, and extent of urban revitalization in an upgrading, older, ethnically heterogeneous working-class neighborhood in Milwaukee. The Riverwest neighborhood was selected for the study because, among other factors, its demographic and housing characteristics closely parallel those of the city of Milwaukee as a whole. Ethnically, Riverwest contains 12,000 people living in five census tracts, a mixture (in descending order of prevalence) of Germans, Poles, Italians, Blacks, and Puerto Ricans. Riverwest is an “or-
Figure 1. Determinants of neighborhood attachment.

dinary" neighborhood, much like other working-class neighborhoods of the industrial heartland. It was built up early in this century as a working-class area. The neighborhood is composed largely of modest frame single-family houses and duplexes on narrow (25' or 30') lots. The ethnic mix and the working-class history give Riverwest considerable communality with other central-city neighborhoods in the midwest and the northeast.

The community is bordered by once-similar but now predominantly black neighborhoods. These areas are beset by deteriorating housing inventories, tax delinquencies, and population outflow. Not surprisingly, more than two decades ago Riverwest was characterized by city planning officials as an area of inevitable filtering down and deterioration.

We constructed a sampling frame by using the reverse street address telephone directory to identify addresses within the neighborhood. Then, we employed a sequential probability sampling model of telephone numbers stratified by census tract, using a controlled selection procedure to balance respondents by age and gender. The sample, which initially included 785 respondents, yielded a 70 percent response rate. We conducted additional interviews with persons having unlisted numbers to determine whether any systematic biases were present. None were detected. Because home improvement and renovation activity is relevant only for homeowners, the analysis is limited to those individuals (N = 312).
Measures

We constructed scales by factor analyzing the questionnaire items, using the principal components method. Items included in the scales have loadings equal to or greater than .40. We subjected the factor matrix to varimax orthogonal rotation and weighted scale items by the factor scores. Three scales were constructed.

The three scales are as follows: 1) Interpersonal network (NETWORK), a three-item scale, measures where and how often residents socialize with neighborhood friends. 2) Neighborhood attachment (ATTACH) is a composite scale incorporating three survey items, that express sense of belonging to neighborhood, identification with neighborhood, and likelihood of living in neighborhood five years from now. 3) Formal organizations (ORG) is a composite scale measuring the number of local organizations to which the resident belongs, and the extent to which he or she used services offered by the organizations.

We divided residents into two groups: 1) long-term residents, who have lived in Riverwest at least five years, and 2) newcomers, who have resided in the neighborhood less than five years.

Length of residence (LENG) is a dummy variable: 1 = respondent who has lived in Riverwest at least five years; 0 = respondent who has lived in the neighborhood less than five years.

Renovation status (RENO) is a dummy variable: 1 = residents who responded affirmatively to a question about "whether or not home improvements were made" and who reported the dollar value of the improvements as more than $500.

Length of residence by renovation interaction: We constructed two dummy variables. For long-term residents [OLD•RENO], 1 = renovators, 0 = nonrenovators; for newcomers [NEW•RENO], 1 = renovators, 0 = nonrenovators.

Individual characteristics include the following variables: 1) age (in years) (AGE); 2) education (in years) (EDUC); 3) income, the 1980 total household income from all sources (INC); 4) race, a dummy variable (1 = white, 0 = black) (RACE); and 5) gender, a dummy variable (1 = female, 0 = male) (GENDER).

RESULTS

Table 1 displays the importance of the neighborhood as a source of interpersonal network and as an organizational community for renovators or nonrenovators, long-term residents, and newcomers. Newcomers and longer-term residents showed significant differences
in the degree of interpersonal involvement in the neighborhood. Whereas approximately 30 percent of all long-term residents had a “high” level of involvement, less than 20 percent of newcomers showed the same level of involvement. Among newcomers, the differences in interpersonal network between renovators and nonrenovators were very small: approximately one-sixth of all newcomers had neighborhood interpersonal networks. Among long-term residents, however, one-quarter (25.6 percent) of nonrenovators and one-third (33.4 percent) of renovators reported high levels of interpersonal involvement. We found larger differences between renovators and nonrenovators in the level of participation in local organizations. Among both newcomers and longer-term residents renovators were more likely to be active by a ratio of 1.5:1 and 2:1 respectively. The findings support recent empirical studies which show that neighborhoods continue to be “saved” for at least some of their residents (Fischer, 1982; Hunter, 1975; Wellman, 1979).

The high percentage of newcomers who reported a high level of participation in neighborhood organizations reinforces recent findings (Crenshaw & St. John, 1989; Majka & Donnelly, 1989) that for newcomers who were not well integrated into the social network of the neighborhood, affiliation with local organizations tended to be a substitute for informal association. The higher participation among renovators in both groups supports the view that voluntary neighborhood associations play an important role in neighborhood revitalization.

Table 2 presents results of the multiple linear regression with interpersonal network and organizational participation as the dependent variables. The new/old by renovation interactions represented differences in the effect of renovation status separately for newcomers and for long-term residents.1 Age, education, and income all had significant effects on interpersonal network; residents who were older and less educated and who have higher incomes reported more interpersonal local ties. Gender was not related to either interpersonal network or formal organizational ties. Not surprisingly, long-term residents had more informal ties in the neighborhood ($\beta = .352; p < .001$) than newcomers.

The results for organizational participation show almost the opposite pattern: better-educated and younger residents were more likely to participate. Also, race and renovation status had a positive and

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1 The coefficients for the interaction terms NEW•RENO and OLD•RENO represent a difference in the renovation slopes between newcomers and long-term residents. Model II differs from Model I in that it includes the interaction terms.
Frankfort-Nachmias and Palen

Table 1. Homeowners Reporting High Interpersonal Network and Organizational Participation

<table>
<thead>
<tr>
<th></th>
<th>Newcomers</th>
<th>Long-term Residents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All</td>
<td>Nonrenovators</td>
</tr>
<tr>
<td>Network (NET)</td>
<td>High*</td>
<td>22.2</td>
</tr>
<tr>
<td>Organization (ORG)</td>
<td>High*</td>
<td>17.6</td>
</tr>
</tbody>
</table>

* 1 SD above the mean.

Table 2. Standardized Regression Coefficients with Network and Organizations as Dependent Variables

<table>
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<th>Model II</th>
<th>Model I</th>
<th>Model II</th>
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</thead>
<tbody>
<tr>
<td>Education</td>
<td>-.186**</td>
<td>-.238***</td>
<td>.206**</td>
<td>.216**</td>
</tr>
<tr>
<td>Income</td>
<td>.151*</td>
<td>.048</td>
<td>.106</td>
<td>.076</td>
</tr>
<tr>
<td>Age</td>
<td>.149*</td>
<td>.134</td>
<td>-.160*</td>
<td>-.197**</td>
</tr>
<tr>
<td>Gender</td>
<td>.030</td>
<td>.026</td>
<td>.000</td>
<td>-.008</td>
</tr>
<tr>
<td>Race</td>
<td>.057</td>
<td>.097</td>
<td>.173**</td>
<td>.157**</td>
</tr>
<tr>
<td>LENG</td>
<td>.352***</td>
<td>.257**</td>
<td>-.000</td>
<td>.028</td>
</tr>
<tr>
<td>RENO</td>
<td>.128</td>
<td>.098</td>
<td>.233***</td>
<td>.193**</td>
</tr>
<tr>
<td>NEW • RENO</td>
<td></td>
<td>(0.75)</td>
<td></td>
<td>.119</td>
</tr>
<tr>
<td>OLD • RENO</td>
<td></td>
<td></td>
<td>.288***</td>
<td>.068</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>.208</td>
<td>.273</td>
<td>.209</td>
<td>.217</td>
</tr>
</tbody>
</table>

* p < .05.
** p < .01.
*** p < .001.
(Note: The t-values are given in parentheses).
significant effect on participation in organizations: white residents and renovators demonstrated a higher level of participation.

In Model II (equations 2 and 4) we added interaction terms for newcomer by renovation and old-timer by renovation. This step allowed us to analyze how renovation affects local ties and participation in neighborhood organizations separately for newcomers and for old-timers. Adding the old-timer by renovation interaction terms to Model II improved the fit significantly for network. Equation 2 shows that on average, long-term residents who were renovators had more informal ties in the neighborhood than long-term residents who were nonrenovators. Among newcomers, renovation status had no impact on network.

For organization, none of the interaction terms were significant, and Model II did not significantly increase the explained variance in relation to the basic model.

In Table 3 we examined the effects of the independent variables on neighborhood attachment. Model I includes the five demographic variables, length of residence, and renovation. Model II adds network and organization to the equation. Comparing the two models allowed us to assess the extent to which the effects of renovation activity and length of residence on neighborhood attachment were mediated by local network and by participation in neighborhood organizations. Model III adds the interaction terms of renovation for newcomers and old-timers.

Renovators and long-term residents were more attached to the neighborhood ($\beta = .284, \beta = .252; p < .001$) than nonrenovators and newcomers. Adding network and organization to the model increases the $R^2$ considerably (from .112 to .221). Both network and organizations had a significant effect on attachment. Moreover, an examination of Model II suggests that some of the effects of length of residence and renovation were mediated through network and organization. Thus more than one-third of these effects were exhausted by the introduction of network and organization. The renovation by old-timer interaction has a positive effect on neighborhood attachment, over and above the main effects shown in the model. Thus, long-term residents who renovate were more attached to the neighborhood than were long-term nonrenovators.

SUMMARY AND CONCLUSIONS

In this study we have addressed the community question by examining neighborhood participation, attachment, and activity in a
Table 3. Standardized Regression Coefficients with Attachments as a Dependent Variable

<table>
<thead>
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<th>Independent Variables</th>
<th>Model I</th>
<th>Model II</th>
<th>Model III</th>
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<tbody>
<tr>
<td>Education</td>
<td>.064</td>
<td>.067</td>
<td>.040</td>
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<td></td>
<td>(0.848)</td>
<td>(0.907)</td>
<td>(0.511)</td>
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<tr>
<td>Income</td>
<td>.066</td>
<td>-.001</td>
<td>-.064</td>
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<td></td>
<td>(0.927)</td>
<td>(-.012)</td>
<td>(-0.913)</td>
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<tr>
<td>Age</td>
<td>.050</td>
<td>.046</td>
<td>.016</td>
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<td></td>
<td>(0.671)</td>
<td>(0.648)</td>
<td>(0.208)</td>
</tr>
<tr>
<td>Gender</td>
<td>.014</td>
<td>.006</td>
<td>-.001</td>
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<td></td>
<td>(0.207)</td>
<td>(0.089)</td>
<td>(-0.014)</td>
</tr>
<tr>
<td>Race</td>
<td>.012</td>
<td>-.045</td>
<td>-.029</td>
</tr>
<tr>
<td></td>
<td>(0.169)</td>
<td>(-0.663)</td>
<td>(-0.398)</td>
</tr>
<tr>
<td>LENG</td>
<td>.284***</td>
<td>.186**</td>
<td>.187**</td>
</tr>
<tr>
<td></td>
<td>(3.706)</td>
<td>(2.442)</td>
<td>(1.974)</td>
</tr>
<tr>
<td>RENO</td>
<td>.252***</td>
<td>.161*</td>
<td>.127</td>
</tr>
<tr>
<td></td>
<td>(3.459)</td>
<td>(2.284)</td>
<td>(1.756)</td>
</tr>
<tr>
<td>NETWORK</td>
<td>—</td>
<td>.279***</td>
<td>.206**</td>
</tr>
<tr>
<td></td>
<td>—</td>
<td>(3.877)</td>
<td>(2.810)</td>
</tr>
<tr>
<td>ORG</td>
<td>—</td>
<td>.237***</td>
<td>.210**</td>
</tr>
<tr>
<td></td>
<td>—</td>
<td>(3.297)</td>
<td>(2.968)</td>
</tr>
<tr>
<td>NEW • RENO</td>
<td>—</td>
<td>—</td>
<td>.136</td>
</tr>
<tr>
<td></td>
<td>—</td>
<td>—</td>
<td>(1.693)</td>
</tr>
<tr>
<td>OLD • RENO</td>
<td>—</td>
<td>—</td>
<td>.199**</td>
</tr>
<tr>
<td></td>
<td>—</td>
<td>—</td>
<td>(2.561)</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>.112</td>
<td>.221</td>
<td>.262</td>
</tr>
</tbody>
</table>

* p < .05.
** p < .01.
*** p < .001.

revitalizing working-class neighborhood in a larger midwestern city. Newcomers and longer-term residents, and renovators and nonrenovators (all homeowners) were included in the sample. We found distinct differences between newcomers and old-timers. The community appeared to be “defended” for a large proportion of longer-term residents, who seemed to be well integrated into the social network of the neighborhood. Old-timers who were renovators also demonstrated strong friendships and were also more likely to be active in local neighborhood organizations. This mix of local informal ties and activity in local organizations had an effect on residents’ level of
attachment to the neighborhood: longer-term renovators showed the highest level of attachment.

For newcomers the pattern was different. Neither renovators nor nonrenovators in this group were well integrated into the social network of the neighborhood. Newcomers who were renovators, however, were highly active in local organizations, specifically organizations identified with promoting change in the neighborhood. Neighborhood associations apparently provided cohesiveness and integration for newcomers who experienced the neighborhood as undergoing changes due to renovation and who had not developed extensive local social networks. For newcomers, especially renovators, the neighborhood seemed to be a community of limited liability, making only partial claims on their social ties, but it continued to have a basis in propinquity. For newer residents, the local organizations mediated between the neighborhood and the external environment.

The findings support recent studies (Crenshaw & St. John, 1989) which describe gentrified neighborhoods as sharing characteristics of both defended and limited-liability neighborhoods. Moreover, for renovators, the neighborhood can be described as "organizationally dependent": participation in the neighborhood takes place through participation in local voluntary associations.

Somewhat unexpected was the nonutility of gender as a significant independent variable. In this study gender made no difference in either informal networking or membership in formal organizations. Fava’s (1985) research and Spain’s (1988) analysis of 32,000 households in the Annual Housing Survey suggest that gender has largely lost its importance as a predictor of residential choice. It appears that it is also no longer significant in predicting informal neighborhood networking or formal organizational membership.

The study has several implications for community development in urban neighborhoods. First, it shows that community has an important influence on residents' overall level of attachment to their neighborhood. These findings are significant because community development practitioners often find it difficult to provide evidence that community at the neighborhood level makes a difference in residents' lives. This study may help convince residents and policymakers that using resources to build a sense of community at the neighborhood level in metropolitan areas is a worthwhile investment.

Second, the fact that neighborhood organizations contribute substantially to the level of community attachment reinforces the need to encourage participation at the local neighborhood level. Neighborhood voluntary associations are closely tied to revitalization and
thereby to economic development. They play a major role in controlling neighborhood transformation. Major neighborhood enterprises can be initiated outside the framework of local government and are aided by the neighborhood association. Reinvestment programs controlled by neighborhood associations can serve either as alternatives to public and private ventures or can complement such ventures.

Third, the different ways that longer-term residents and newcomers relate to their neighborhoods provide some insights into the difficulties that practitioners often face in trying to design programs which will work with all individuals. Practitioners need to be sensitive to the fact that because of individual differences between residents not all community building goals will have the same degree of effectiveness with all residents. The incentives that are likely to encourage longer-term residents to participate in community development activities, for example, are most likely to be those that focus on building up a sense of community based on interpersonal connections. On the other hand, the fact that newcomers' sense of attachment derived almost entirely from their affiliation with local organizations suggests that practitioners will have to develop different strategies to induce their participation in community development programs.

Finally, this study illustrates the usefulness of sociological research employing survey designs to community development practitioners in metropolitan areas. These areas have always presented a more complex challenge in terms of identifying the determinants of citizen preferences, goals, and community attachment than have smaller and more homogeneous nonmetropolitan areas because of their size and diversity. This has been a principal obstacle to the development of effective strategies that might encourage the participation of metropolitan residents in community development efforts (O'Brien et al., 1989). Survey research techniques combined with a conceptual framework that delineates the factors associated with the overall quality of community life can identify specific citizen preferences with respect to community development. The remaining task is to apply that knowledge toward effective plans of action in urban settings.

REFERENCES


Whyte, W. F. Street Corner Society. Chicago: University of Chicago Press. 1942

Wirth, L. Urbanism as a way of life. American Journal of Sociology 44:12. 1938
THE ROLE OF SELF HELP, PRIVATE HELP, AND COMMUNITY ASSISTANCE FOR SMALL MANUFACTURING FIRMS
By Ruth C. Young and Joe D. Francis

ABSTRACT
A study of small manufacturing firms in a New York county revealed that owners of small firms place a great deal of reliance on their own resources. Most contribute to their financing. They work long hours, are involved in marketing, research and development, and initially draw little salary. They also depend on private sources of help, both paid and freely available, such as lawyers, accountants, and trade shows. A third important source of help is the community. Over half have contact with one or more public organizations and almost a quarter get some public funding. Marketing is a major consideration for them, yet this problem is complicated by their status as suppliers to larger firms for whom they do special or custom work under just-in-time inventory conditions.

INTRODUCTION
Despite claims that the United States has no industrial policy, there are many federal, state and local policies and programs directed at helping business. While governments levy taxes and regulate business in ways requiring a lot of paperwork, less attention is paid to the fact that they also offer a helping hand. Governments give all manner of help: site selection and development, financing, business planning, job training, employee recruitment, technical advice, and sometimes whatever a business needs. Such policies and programs assisting business are rarely evaluated. Indeed it is difficult to do so. Even if one could disentangle the help provided a firm by different public agencies, how does one evaluate the effect of that help on profit and loss or on firm progress compared with the effect of help given by private commercial agencies and persons, or the efforts of the firm itself?
Technical assistance is viewed as a third type of community development, in addition to self help and conflict resolution (Christenson & Robinson, 1980). But little is known about what community development of this type exists and what businesses are helped.

Similarly, while there is great public interest in small firms, there is little knowledge of how they function, the extent to which they have to help themselves, or where else they get help and how much. Is small business a bootstrap operation as is commonly believed?

This study of small manufacturing firms in Monroe County, New York, enables us to find out what firms do for themselves, what assistance they secure from private sources, and what help they get from public programs and agencies. This is a first step in understanding the outcomes of public policy and a first step in finding out what public programs can and should do.

The survey of 117 small manufacturing firms in Monroe County, New York, using chief executive officers as informants, revealed that these firms, as is often suspected, depend largely on themselves and internal effort. Yet a majority also secure a variety of help from external private sources, and more than half are in touch with community agencies. Nearly a quarter actually obtain financial help from a community agency. The survey also explored future directions the firms wish to take and their needs and problems. This information, while confined to manufacturing firms in one county, may be useful to applied program planning. We shall outline what firms do for themselves, and what help and service they get from private and public sources.

**Technical Assistance**

A third theme of community development is technical assistance. The other two are self help and the conflict approach. In *Community Development in America*, these three were described. “Technical assistance or planning encompasses about one-fourth of the articles that have appeared in the Journal over the last ten years” (Christenson, 1980, p. 45). The theme of this philosophy is that “structure determined behavior” (p. 45). Gamm and Fisher (1980) went on to say in the same volume that “technical assistance is intended to help communities defuse their problems and needs and potential solutions while allowing for some degree of community autonomy” (p. 48). In New York State, several types of community agencies have been working on community and industrial development. Foremost among these are county industrial development agencies and chambers of commerce. Every county has at least one of each. These are agencies
set up and run by the community that bring together a variety of state and federal programs for helping business. They often collaborate and put various agency services together in a suitable package for the business. Two government agencies also play a powerful role, the SBA and the New York State Science and Technology Foundation. The latter runs the Small Business Innovation Research Program.

The industrial development agencies (IDA) are quasi-governmental. Each county has at least one and several also have town agencies. Establishing a new industrial development agency requires a vote of the state legislature and a vote of the local legislature in the locality at issue. The local legislative body then appoints a board of seven directors. This board of directors has authority to operate the agency, including appointing staff, approving budgets and approving all bond issues. These local development agencies have a diversity of financing, much of it from projects and various community agencies, and often have offices separate from government organizations. Their survival depends on their wits and not on a government benefactor.

The chamber of commerce is a nongovernmental community body composed of members.

Many state and federal agencies also operate in the community, many through the community-based organizations that pull their efforts together in acceptable packages. Since the amount of money awarded is often based on jobs to be created, there is some funding to help large corporations. Nonetheless there is considerable funding available for relatively small business in state and federal agencies as well as through local groups. A business will be contacted by its county IDA and its needs assessed. It will apply for various loans and grants, perhaps supplemented by local IDA funds, a bank loan and personal funds. These packages are difficult to put together and would not often happen without local efforts and resources. The local organization can provide sponsorship and the state and federal agencies the funds. Chambers of commerce also provide input such as advice and business plans. While many state agencies have local representation and regional offices, many others do not. Being put in touch with the network by the local agency is important to a business. While we know of this support, it was not clear how much of the community was affected by it. Fifty-six percent of the businesses were contacted by one or more state and local agencies. Twenty-four percent received loans or grants from them. While this is significant help, what about the rest? How did they get started and survive and what kind of technical assistance did they get?

In the years since 1981, the Journal of the Community Development
Table 1. Two-Digit SIC Numbers of Original Sample and Respondents

<table>
<thead>
<tr>
<th>SIC</th>
<th>Interview or Mail Response</th>
<th>Original Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n = 117</td>
<td>n = 205</td>
</tr>
<tr>
<td>21</td>
<td>Tobacco products</td>
<td>0</td>
</tr>
<tr>
<td>22</td>
<td>Textile mill products</td>
<td>1</td>
</tr>
<tr>
<td>23</td>
<td>Apparel and other textiles</td>
<td>5</td>
</tr>
<tr>
<td>24</td>
<td>Lumber and wood</td>
<td>1</td>
</tr>
<tr>
<td>25</td>
<td>Furniture and fixtures</td>
<td>7</td>
</tr>
<tr>
<td>26</td>
<td>Paper and allied products</td>
<td>1</td>
</tr>
<tr>
<td>27</td>
<td>Printing and publishing</td>
<td>0</td>
</tr>
<tr>
<td>28</td>
<td>Chemicals and allied products</td>
<td>2</td>
</tr>
<tr>
<td>29</td>
<td>Petroleum and coal products</td>
<td>0</td>
</tr>
<tr>
<td>30</td>
<td>Rubber and misc. plastic products</td>
<td>8</td>
</tr>
<tr>
<td>31</td>
<td>Leather and leather products</td>
<td>0</td>
</tr>
<tr>
<td>32</td>
<td>Stone, clay and glass products</td>
<td>3</td>
</tr>
<tr>
<td>33</td>
<td>Primary metal industries</td>
<td>2</td>
</tr>
<tr>
<td>34</td>
<td>Fabricated metal products</td>
<td>20</td>
</tr>
<tr>
<td>35</td>
<td>Industrial machinery and equipment</td>
<td>44</td>
</tr>
<tr>
<td>36</td>
<td>Electronic and other electric equipment</td>
<td>9</td>
</tr>
<tr>
<td>37</td>
<td>Transportation equipment</td>
<td>3</td>
</tr>
<tr>
<td>38</td>
<td>Instruments and related products</td>
<td>9</td>
</tr>
<tr>
<td>39</td>
<td>Miscellaneous manufacturing industries</td>
<td>2</td>
</tr>
</tbody>
</table>

Society has published many articles that could be designated as technical assistance, but none of them have evaluated community agencies giving economic help to firms, especially from the firm point of view (see for example, Blakely & Aparillo, 1990; Glaser, 1986; Fitzgerald & Meyer, 1986).

THE STUDY

The study consisted of interviews with 117 chief executive officers (who were often founders) of small manufacturing firms in Monroe County, New York, and of follow-up mail questionnaires of some who could not be reached in person. (No female CEOs were found.) Monroe County has a population of over 700,000, and Rochester is its largest city with a population of 240,000. The sample was drawn from a list provided by the New York State Department of Economic Development, the best known source, supplemented by the Monroe County Industrial Directory.

An original sample of 205 firms was drawn, proportional to the
number of firms in each 4-digit standard industrial classification excluding food processing and printing and publishing. Of this original sample about one-quarter of the firms were found to no longer exist. A supplementary sample replacing these, selected by SIC number, was drawn, consisting of 54 more firms. Twenty-six percent of the grand total sample, 66 firms, were no longer in existence. Sixty-one percent of existing firms were interviewed; 9 percent more replied to a mail questionnaire. For 30 percent, we have no reply. We have a few outright refusals. Mainly we ran out of time to continue to pursue chief executive officers who are very busy, elusive, well protected, and have many seasonal pressures. Once we secured an interview, respondents were cooperative. The interview could be completed in half an hour—the average was one hour; a number took up to two. Respondents tended to want to demonstrate their products, tour the plant, and talk at length. Table 1 shows the distribution of the sample and responses by SIC numbers.

Of the 117 firms, 42 (36 percent) were founded in or after 1980, thus were ten years old or younger. Sixty-one (52 percent) had 20 employees or fewer, 22 (19 percent) had from 21 to 50 employees, 18 (15 percent) employed 51 to 100, and 16 (14 percent) employed 101 or more. The largest had 700 employees, the next largest 360. Thus, by most definitions, this study is of small firms.

What Firms Do for Themselves: Self-Financing and Extra Time and Effort

A major problem for small firms is to find adequate financing. As Table 2 shows, the firms were largely self-financing from the owner’s
funds, internal firm funds, or secured bank loans. Many other sources were used but none by more than a few firms. Seventy-one percent used the owner’s funds for original financing, 12 percent family and friends’ funds, and 26 percent used bank loans. For subsequent financing the proportion using bank loans increased to 59 percent, 74 percent used internal financing within the firm, while use of the owner’s funds decreased to 17 percent and family and friends’, financing decreased to 6 percent. Other funding sources included stock options, venture capital, city, county, state or federal funding sources, and business associates or other companies.

Nearly half (48 percent) of chief executive officers report they worked 65 or more hours a week, and only 19 percent worked a 40 hour week or less at the beginning of their firm. At the time of the interview, the proportion working 65 or more hours had diminished to 15 percent. Even then, only 28 percent worked a 40 hour week or less. Originally 61 percent of founders were paid nothing, a token salary, or living expenses only. At the time of the interview this had diminished to 11 percent, while 73 percent were paid a salary. But even then only 16 percent were paid a percent of the profit or in stock options.

Seventy-three percent of the chief executive officers do marketing and 74 percent are involved in the design of products or research and development. Thus from every point of view, the owner and founder of the company has made a large commitment of time, money, and effort.

When asked where they would go for help with future plans, 46 percent of the total cited the bank, 28 percent would use internal funds, 6 percent would use no one, 23 percent would use various public agencies, and 6 percent venture capital or other companies. Though they hope for public help to some extent, they still expect to help themselves.

Private Sources of Help

Business Plans. The making of a business plan is thought to be of crucial importance to a business, and indeed is required in most loan applications. Table 3 shows nonetheless that a large portion (42 percent) had no business plan at the beginning and 18 percent still do not. Of those with a plan, 79 percent had no outside help with the original plan, and 67 percent devised the present plan within the firm. Only 21 percent had outside help with the original plan, largely from lawyers, accountants and the like, and 29 percent received assistance with the current plan, again largely from commercial sources.
Table 3. The Existence of Business Plans at the Start and Now, and Who Devised Them

<table>
<thead>
<tr>
<th>Percent with Plan</th>
<th>At the Start</th>
<th>Now</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>No, have no plan</td>
<td>42</td>
<td>49</td>
</tr>
<tr>
<td>Yes, an informal plan</td>
<td>35</td>
<td>41</td>
</tr>
<tr>
<td>Yes, a formal plan</td>
<td>17</td>
<td>20</td>
</tr>
<tr>
<td>No answer</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Total number</td>
<td>100</td>
<td>117</td>
</tr>
</tbody>
</table>

Of Those with Plans-Who Helps:

| Help from lawyer, accountants, SBA*, business contacts, bank, etc. | 21 | 13 | 29 | 28 |
| No outside help | 79 | 48 | 67 | 64 |
| No answer | 0 | 0 | 4 | 4 |
| Total number | 100 | 61 | 100 | 96 |

* Two cases.

**Product Development and Technology.** Another important problem for the chief executive officer is the source of his original product, his present product, if different, and the knowledge necessary for his innovations. Table 4 shows that the original product was in the public domain for 63 percent of the firms. In 16 percent the owner invented or developed it, and in 12 percent the manufacturer obtained it directly from a previous company where he worked. In 5 percent of the cases the owner took a product from a previous company where he worked, then developed or improved on it. If the present product is different from the original, 11 percent of the time the owner invented or developed it, 10 percent of the manufacturers used a product generally available. To the reset the product is the same as the original or of unknown origin.

Thirty-two percent said that one of their products was a new, original invention. A number of sources were mentioned for the knowledge necessary for this invention. Eighteen percent mentioned personal experience, and 5 percent research and development. One or two mentioned a licensed product, another company, government literature, market studies, the library, or a technical magazine.

Sixty-nine percent install and maintain their own machinery; 25 percent have it installed by the seller, and only 6 percent use outside electricians for this.
Table 4. Source of Original and Present Products

<table>
<thead>
<tr>
<th>Source of Product</th>
<th>Original Product</th>
<th>Present Product</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Generally available</td>
<td>63</td>
<td>74</td>
</tr>
<tr>
<td>Owner invented or developed</td>
<td>16</td>
<td>18</td>
</tr>
<tr>
<td>From previous company</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>Developed, improved on product from</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>previous company</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Joint venture with another company</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Don't know</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Bought from inventor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Present product same as original</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total number</td>
<td>100</td>
<td>117</td>
</tr>
</tbody>
</table>

Another major question is where firms get their information: technical information, knowledge of competitors, sources of their products and of innovation, and what channels they use in marketing. For technical information, knowledge of competition, and marketing, a number of sources are important.

Table 5 shows where technical information comes from and knowledge of competitors. Many choose more than one source. Percents are of the total. Major sources of technical knowledge are professional journals and conferences, and technical journals, trade shows, technical specification sheets, customers, sales people, other producers, former job contacts, and the business owner’s own invention. A few named universities, larger companies, and the government.

Sources of knowledge of the competitors were similar in many ways. Customers and the bidding process figured more importantly, and sources such as technical and professional journals were less important.

Marketing. Another crucial business problem is marketing. Only 22 percent have had a marketing study; of these, 13 percent had a formal marketing study, and only 9 percent had outside help with it by a market research firm or other agency. Nearly 3 of 4 firms interviewed (74 percent) used no outside agencies or consultancy for marketing.
Table 5. Source of Technical Information and Knowledge of Competitors

<table>
<thead>
<tr>
<th>Percent Using</th>
<th>Technical Information</th>
<th>Knowledge of Competitors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Professional journals</td>
<td>52</td>
<td>61</td>
</tr>
<tr>
<td>Trade shows</td>
<td>41</td>
<td>48</td>
</tr>
<tr>
<td>Technical shows/journals</td>
<td>40</td>
<td>47</td>
</tr>
<tr>
<td>Professional conferences</td>
<td>39</td>
<td>45</td>
</tr>
<tr>
<td>Customers</td>
<td>33</td>
<td>38</td>
</tr>
<tr>
<td>Invent it ourselves</td>
<td>26</td>
<td>30</td>
</tr>
<tr>
<td>Other similar producers</td>
<td>23</td>
<td>27</td>
</tr>
<tr>
<td>Distributors, sales people</td>
<td>21</td>
<td>25</td>
</tr>
<tr>
<td>Sales people</td>
<td>21</td>
<td>25</td>
</tr>
<tr>
<td>The bidding process</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Suppliers</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Total number</td>
<td>—</td>
<td>117</td>
</tr>
</tbody>
</table>

Many chose more than one source.

Marketing (Table 6) was done most often by direct approach to customers or by word of mouth. Again, more than one marketing method was named by many, and percents are of the total. Other similar producers were also sources of knowledge of the market. Trade shows, trade magazines, and technical journals were also named.

Private, Professional, and Consulting Services. Although the firm’s own initiative is of great importance, nearly all the firms reach out to private sources for some help, information, and services. Firms also contract directly for an array of services. Most use local providers, many more than one. Percents are of the total. Only 3 percent say they use no such private sources of help. Table 7 shows the proportions using various kinds of professional help, local or outside the community. The overwhelming majority of firms use insurance, accounting, legal, and printing services, and most of these use local professionals. Over a third use advertising, personnel and technical; a few use management services.

Help from Community Agencies: Contacts and Financing. All of this private help is readily available to those with initiative to seek it, and the money to pay for it. It is not initiated or provided by public agencies. Therefore one must conclude that the element of independent initiative and self-sufficiency figures large. Still, there is evidence
Table 6. How Products are Marketed

<table>
<thead>
<tr>
<th>How Products Marketed</th>
<th>Percent of 117 Total Using this Means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percent</td>
</tr>
<tr>
<td>Direct contact</td>
<td>72</td>
</tr>
<tr>
<td>Word of mouth</td>
<td>55</td>
</tr>
<tr>
<td>Manufacturers' representatives</td>
<td>35</td>
</tr>
<tr>
<td>Trade shows</td>
<td>30</td>
</tr>
<tr>
<td>Advertising in technical journal</td>
<td>26</td>
</tr>
<tr>
<td>Other</td>
<td>22</td>
</tr>
<tr>
<td>Contacts from former job</td>
<td>20</td>
</tr>
<tr>
<td>Articles in technical journals</td>
<td>16</td>
</tr>
<tr>
<td>Distributors, sales people</td>
<td>16</td>
</tr>
<tr>
<td>Telemarketing</td>
<td>16</td>
</tr>
<tr>
<td>Other magazine advertising</td>
<td>15</td>
</tr>
<tr>
<td>Technical shows</td>
<td>14</td>
</tr>
<tr>
<td>Suppliers</td>
<td>12</td>
</tr>
<tr>
<td>Professional conferences</td>
<td>9</td>
</tr>
<tr>
<td>Government procurement</td>
<td>7</td>
</tr>
</tbody>
</table>

A number of firms use more than one method.

of a considerable degree of public aid. Following are the major categories of help from public agencies.

Contacts from Public Services. Fifty-two percent of the firms said that some organization or person from the community contacted them asking if they need help of any kind, some by more than one. Table 8 shows the proportions contacted by various organizations.

The agency with the most contacts was the Small Business Administration, with which 92 percent had contact, next the chamber of

Table 7. Proportions Using Local or Outside Professional Services

<table>
<thead>
<tr>
<th>Type of Help</th>
<th>Local</th>
<th>Outside</th>
<th>Don't Know Which</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percent</td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Insurance</td>
<td>92</td>
<td>107</td>
<td>7</td>
</tr>
<tr>
<td>Accounting</td>
<td>88</td>
<td>103</td>
<td>5</td>
</tr>
<tr>
<td>Legal</td>
<td>88</td>
<td>103</td>
<td>6</td>
</tr>
<tr>
<td>Printing</td>
<td>83</td>
<td>97</td>
<td>8</td>
</tr>
<tr>
<td>Advertising</td>
<td>38</td>
<td>44</td>
<td>15</td>
</tr>
<tr>
<td>Personnel</td>
<td>37</td>
<td>43</td>
<td>3</td>
</tr>
<tr>
<td>Technical</td>
<td>37</td>
<td>43</td>
<td>12</td>
</tr>
<tr>
<td>Management</td>
<td>16</td>
<td>19</td>
<td>3</td>
</tr>
<tr>
<td>Adv. agent</td>
<td>3</td>
<td>3</td>
<td>11</td>
</tr>
</tbody>
</table>

Most companies use more than one service.
Table 8. Proportions of Firms Contacted by Various Public Agencies

<table>
<thead>
<tr>
<th>Agency</th>
<th>Percent</th>
<th>Number n = 117</th>
</tr>
</thead>
<tbody>
<tr>
<td>No contact from an agency</td>
<td>44</td>
<td>51</td>
</tr>
<tr>
<td>Small Business Administration</td>
<td>32</td>
<td>38</td>
</tr>
<tr>
<td>Chamber of Commerce</td>
<td>22</td>
<td>26</td>
</tr>
<tr>
<td>County Industrial Development Agency</td>
<td>21</td>
<td>25</td>
</tr>
<tr>
<td>New York State Science and Technology Foundation</td>
<td>19</td>
<td>22</td>
</tr>
<tr>
<td>Other state agencies</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>No answer and don’t know</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Many firms were contacted by more than one agency.

commerce with 22 percent, and the county industrial development agency with 21 percent. The New York State Science and Technology Foundation followed closely with 19 percent.

Forty-one percent have been contacted by more than one agency. When asked what kind of help was provided, 18 percent named financial assistance; 7 percent, business planning; 4 percent named site selection or space; and smaller proportions, manpower or job training, and technical help (see Table 9). A number received more than one kind of help.

**Loans and Grants.** Thirty-seven percent of the 117 manufacturers said they had applied to some agency for a loan or grant; most had a good experience. Twenty-four percent got a loan from a public

Table 9. Kinds of Help Provided by Community Agencies

<table>
<thead>
<tr>
<th>Kind of Help</th>
<th>Percent</th>
<th>Number n = 117</th>
</tr>
</thead>
<tbody>
<tr>
<td>Had no contact with any agency</td>
<td>50</td>
<td>58</td>
</tr>
<tr>
<td>Financial assistance</td>
<td>18</td>
<td>21</td>
</tr>
<tr>
<td>Several kinds, unspecified</td>
<td>14</td>
<td>16</td>
</tr>
<tr>
<td>Other</td>
<td>11</td>
<td>13</td>
</tr>
<tr>
<td>Business planning</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Manpower, job training</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>No answer</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Site selection</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Space</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Technical</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Some had more than one kind of help.
source, and 14 percent did not. The loans were for a variety of purposes; the largest categories represented were 10 percent for equipment, 8 percent for construction, 5 for expansion, and 3 for other capital goods. Loans often favor these types of purposes.

A small proportion applied to each of a number of agencies. The highest percentages were to the Small Business Administration (10 percent), the county industrial development agency (8 percent), the New York State Job Development Authority (7 percent), and the New York Science and Technology Foundation (4 percent).

The survey indicated substantial effort from community agencies. Over half the respondents had been contacted and received some kind of public agency help, and a quarter received loans. What public assistance should be provided, of course, is a policy question.

Relations with Other Firms

Aside from sources of help, various aspects of company structure and functioning of these small firms influence the kind of help needed and what can be delivered. Most (85 percent) sell to other manufacturing firms, or are suppliers. Sixty-two percent of them have just-in-time inventory systems. Either some (38 percent) or all of their customers (54 percent) have just-in-time inventory systems. Sixty-eight percent customize their products and a majority (65 percent) repair their products. Together, these facts indicate close ongoing relations with industrial customers. Thus any help given for marketing, produce development, or financing must take into account the nature of special relationships and conditions. Customer development and product development are constrained by such relationships, and the supplier role is affected by the prospects of the firms being served, especially the large local firms to which most of the small firms sell a portion of their output. Perhaps community agencies need to look at the whole network of interdependent large and small firms in order to assess what kind of help they can best provide, and how to provide it.

Present Problems

In response to a question about present needs and problems, the chief executive officers' most frequent responses were employees (60 percent); some aspect of finance, such as money, cash flow, venture capital, an understanding banker (59 percent); and marketing or sales or customers (32 percent). Twenty percent mentioned government regulations and paperwork, and 16 percent, taxes. Nineteen percent mentioned improving production. Smaller proportions mentioned a
Way in Which Firm Plans to Expand

<table>
<thead>
<tr>
<th>Plan</th>
<th>Percent</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer base</td>
<td>53</td>
<td>62</td>
</tr>
<tr>
<td>Space</td>
<td>46</td>
<td>54</td>
</tr>
<tr>
<td>New personnel</td>
<td>38</td>
<td>44</td>
</tr>
<tr>
<td>A new product</td>
<td>31</td>
<td>36</td>
</tr>
<tr>
<td>Expand old product</td>
<td>28</td>
<td>33</td>
</tr>
<tr>
<td>No expansion plans</td>
<td>27</td>
<td>31</td>
</tr>
<tr>
<td>Buy another firm</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>Other</td>
<td>9</td>
<td>11</td>
</tr>
</tbody>
</table>

Some firms had more than one plan for expansion.

Future Plans: Expansion

Seventy-one percent, nearly three-quarters of the 117 manufacturers, plan for expansion (see Table 10). They plan to expand in various ways; the most important one is the customer base, with space, personnel, and a new product following closely. When asked who they expected to help with such expansion, 46 percent said a bank, 28 percent will use internal funds, 23 percent hope to use various governmental or quasi-governmental funds, 6 percent said no one, and a small proportion will use various other
sources (see Table 11). Again, many name more than one source. Community agencies seldom are said to help with marketing or product development, or with personnel problems. Whether they can or should help with these problems needs to be discussed.

When asked the future focus of the company, the most frequently named foci were marketing (44 percent), increase market share (43 percent), product line (45 percent), the production process (38 percent), space expansion (24 percent), and providing more service (25 percent), research and development (17 percent), general personnel (9 percent), and technical personnel (12 percent). Smaller proportions focused on other problems: organizational structure (9 percent), going out of business (9 percent), credit (3 percent), loans (6 percent), software (8 percent), and other (11 percent). Seventy-two percent said that telecommunication would be important to their business in the future. If they are correct, training for computer literacy will be important for small business.

**CONCLUSIONS**

The commonly held view that businesses rely heavily on their own initiative, ability, and resources is borne out by the evidence of this survey. Businesses also use a wide variety of private sources of help, some of which are free and readily available, and some for which they pay professionals. Account should also be taken of the supplier role filled by most of these firms and the interdependence of the large and small firms which undoubtedly also influences small firm behavior. Additionally, however, over half of these small manufacturing firms were contacted by community organizations offering various
kinds of help, and about a quarter actually received financial aid. Future plans also contemplate much self-help and some public help. Thus public resources are contributing significantly to these firms. Future foci of the firms include marketing, personnel, space, and product development. Needs and problems also include marketing and personnel, production, and various financial problems. There is much public policy talk of the burden that taxes represent to business, but only 16 percent mentioned them as a problem, and less than 20 percent complained of government regulations and red tape. Thus while a business man’s own resources are still of central importance, today he is receiving considerable community support, at least in Monroe County, New York.

REFERENCES


PENNSYLVANIANS VIEW ECONOMIC DEVELOPMENT: A TEN-YEAR PERSPECTIVE
By Fern K. Willits and Donald M. Crider

ABSTRACT
Public opinion about the priority to be given to economic growth-promoting policies was assessed using data from statewide surveys of Pennsylvania residents conducted in 1980 and 1990. In both time periods, the majority of the respondents felt that economic development should be encouraged, but they were opposed to lowering pollution standards to attract business and industry. Older citizens, and those living in counties with high unemployment rates were the most likely to support economic growth-promoting activities. People apparently felt that economic growth and environmental protection are not incompatible.

INTRODUCTION
Historically, American culture has equated progress with the rise and expansion of the industrial order, and an ever increasing gross national product has been accepted as the ultimate gauge of prosperity and abundance. In this framework, the maximization of economic growth is desirable not only to ensure the availability of jobs and returns on capital investments, but also because growth means progress and progress is good (Williams, 1970). However, in the last 25 years, this position has been questioned (Anderson, 1976; Devall, 1980; Petulla, 1987; Weisberg, 1971). Focusing attention on the dangers of pollution, resource depletion, and the loss of open spaces and farmland, some citizens have called for a curtailment of economic development. Legislation has been enacted at all levels of government to regulate and restrict polluting industrial activity and community planning has sought to limit certain types of industrial land use. Targeted opposition to specific developments has blocked or delayed the construction of proposed shopping centers, freeways, and subdivisions. However, a backlash to the “no-growth” forces has also oc-

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curred (Beckerman, 1975; Briggs, 1977). Arguing that growth limitations and the enforcement of environmental restrictions harms the economy by curtailing mining, construction, and manufacturing, these citizens suggest that the nation needs to return to a commitment to economic growth, even if such a move compromises environmental purity.

While both anti- and pro-growth proponents have been vocal in supporting their positions, it is unclear how widely their sentiments are held in American society. Some previous research has focused on resident attitudes toward local development and specific initiatives (Gottdiener & Neiman, 1981; Neiman & Loveridge, 1981; Stout-Wiegand & Trent, 1984). Research dealing with citizen evaluation of the priority that society should give to the more general idea of economic development has been more limited. Most studies have reported that economic growth is seen by public officials, community leaders, and the citizenry, as desirable and good (Maurer & Christenson, 1982; Maurer & Napier, 1981). Problems precipitated by economic development are viewed as growing pains—things with which the community can and should cope as it moves toward a brighter tomorrow (Bridger & Harp, 1990). However, much of the extant literature draws upon data which are 10 to 15 years old and provides few insights into changes in the public's feelings about economic growth which may have occurred across time. Equally important, the demographic and personal characteristics of those citizens most and least likely to give priority to economic development have not been adequately researched. Several hypotheses in regard to this issue have been advanced (Connerly & Frank, 1986).

Environmental Attitudes Hypothesis

The environmental movement has historically taken an anti-growth position (Sills, 1975). Many writers have suggested that environmental problems in the U.S. are a direct outgrowth of our nation's commitment to growth, progress, and a laissez faire economy. They argue that these traditional values have led to environmental degradation and ecological imbalance, but that Americans are changing their world view to A New Environmental Paradigm (NEP) emphasizing resource conservation, pollution control, and a sustainable society (Catton & Dunlap, 1980; Dunlap & Van Liere, 1984; Pirages, 1977). Dunlap and Van Liere (1978), who have contributed extensively to this literature, devised a scale to measure individual acceptance of the NEP which has been used to index environmental concern (Arcury et al., 1986; Noe & Snow, 1989–90; Van Liere & Dunlap, 1983).
Included in the scale are items which deal with limiting economic and population growth—as if these are necessary aspects of environmentalism. Some research has found the hypothesized negative association between environmental attitudes and concern for economic growth (Dunlap & Van Liere, 1984; Gottdiener & Neiman, 1981), but the consistency and importance of the linkage have been questioned (Buttel & Flinn, 1976).

The Social-Status Hypothesis

Some have argued that primary support for anti-growth philosophies (and environmentalism) rests with an educational and income elite while the working classes, for whom anti-growth policies threaten job security, are staunch advocates of economic growth (Wiener, 1973; Morrison, 1976).

The very rich fret about their gaming or the preservation of their estates. The moderately rich fight for their leisure in the wilderness, and on down to the middle-income vacationer’s fear about the overcrowding of the trailer camps (Neuhans, 1971, p. 136).

A prominent target of anti-growth activity has been the expansion of cities into the hinterland. While some groups have benefited financially from this urban sprawl (Maurer & Christenson, 1982; Molotch, 1976), unsightly developments, the loss of open spaces, and infrastructure problems have threatened the privileged lifestyles of suburban residents and let to opposition to continuing growth (Finkler et al., 1976). Anti-growth policies may also be strategies to maintain the elite character of the area by restricting the in-migration of lower-income persons.

Although the belief persists that support for economic growth is negatively linked with socioeconomic status, research evaluating this hypothesis has presented inconsistent findings. Some studies have found that lower-status persons are more supportive of growth than are those of higher socioeconomic status (Buttel, 1978). Others have failed to provide support for this hypothesis (Albrecht et al., 1986; Connerly & Frank, 1986; Gottdiener & Neiman, 1981).

The Age and Gender Hypotheses

Age and gender are frequently linked with growth control attitudes, with younger people and women expressing somewhat stronger environmental attitudes than their opposites (Van Liere & Dunlap, 1980; McStay & Dunlap, 1983).

Young people in American society are seen as less integrated into
the economic system, and more likely to challenge the existing social order than are older citizens (Malkis & Grasmick, 1977; Van Liere & Dunlap, 1980). As a result, a positive relationship between age and support for economic growth would be expected, with youth more likely to call for growth restrictions while older citizens disproportionately support the more traditional notions of a laissez faire economy and growth as progress. Research presents conflicting findings, with at least one study reporting a negative relationship between age and support for growth management (Baldassare, 1984), another suggesting no relationship (Gottdiener & Neiman, 1981), and a third supporting a positive relationship (Connerly & Frank, 1986).

Women are believed to be more environmentally concerned than men due to gender differences in socialization which encourage them to be more “ecologically benign,” while men are taught to be “ecologically destructive” (Blocker & Eckberg, 1989; McStay & Dunlap, 1983). In addition, because historically women have been less directly linked to the economic structure, they may have been less concerned than men with economic growth. However, with increasing numbers of women in the labor force, this gender distinction might be expected to decline.

The Community Context Hypothesis

It also seems likely that contextual characteristics of the area would enter into a person’s evaluation of the need to promote or limit further economic development. Connerly and Frank (1986) found no associations between population size and growth rate measured at the county level and support for managing population growth. We are aware of no research which has used such contextual variables to explain differences in residents’ feelings about economic growth. Support for economic growth/development would be expected to be greatest in areas where there are high rates of unemployment. Not only those seeking work, but other residents who experience indirectly the impact of unemployment in the area would likely endorse economic growth.

Purpose

The purpose of this analysis was to assess the nature and correlates of public attitudes toward economic growth and changes in these ideas across time. The following research questions were addressed:

1) How do people feel about encouraging economic growth in the
face of its presumed threat to the environment? How, if at all, have these ideas changed in recent years?

2) How selective is support for economic growth in terms of the hypotheses drawn from the literature? How do environmental attitudes, social status, age, gender, and unemployment level in the area relate to public attitudes toward economic growth? How have these relationships changed across time?

This paper explores answers to these questions utilizing information from two surveys of Pennsylvania residents conducted a decade apart. Pennsylvania represents a particularly appropriate region in which to examine these ideas since both metropolitan and nonmetropolitan areas of the state have shown weak earnings growth in the last decade, and the state's economic condition suggests the likelihood of concern for future job security (Redman & Rowley, 1990). At the same time, Pennsylvania's location in the Northeastern United States highlights it as an historical site of industrial expansion and environmental exploitation where public attitudes about continuing economic growth would be expected to be salient.

THE DATA

Data for this analysis were obtained from two statewide mail surveys of Pennsylvania residents. The first, Pennsylvania: The Citizen's Viewpoint, was published in 1980 and sampled drivers' license registrants in the state, stratified within counties by gender and age. The 9,957 persons who responded to the survey represented 70 percent of the total number of individuals sampled (Moore & Ishler, 1980).

For the second study, Citizens’ Viewpoint: Priorities for the 1990s, the state was divided into five regional units, and 1,500 household addresses were drawn from telephone listings in each area. A total of 7,500 questionnaires were sent with a cover letter instructing the recipient as to who, within the household, should answer the survey. Of the sampled addresses, 896 were insufficient or outdated, resulting in post office returns of the survey materials. A total of 3,632 persons returned usable questionnaires, representing 55 percent of the valid addresses. For this analysis, the regional samples were weighted in regard to the proportion of the total state population in each region (Willits, Crider & Janota, 1990).

In both surveys, the respondents were asked identical questions concerning whether various options for economic development should have “high,” “medium,” or “low” priority in Pennsylvania in the future. Responses to the following six items, asked in both time periods, were compared to ascertain the nature and extent of change:
1) Change local and state taxes to keep and attract business and industry.
2) Promote the development of small businesses.
3) Promote the development of large businesses.
4) Provide incentives for the expansion of existing Pennsylvania industries.
5) Provide incentives to attract new businesses from outside the state.
6) Lower pollution standards to keep and attract business and industry.¹

In addition, the responses to these six items were combined to form a single index or scale for survey participants in each time period. This was done by scoring the response categories from “3” (high priority) to “1” (low priority) and calculating the mean score of each person’s responses to the above six items. This Economic Priority Index was used as the indicator of the extent to which the individual endorsed economic growth activities. Subjects who responded “don’t know” or who failed to answer any one of the items were deleted from the analysis which used the composite scores. Reliability was assessed by Cronbach’s alpha. For the 1980 data, the standarized alpha was .682; for the 1990 data, alpha was .692.

To ascertain the locus of support for economic growth in 1980 and 1990, and to address the hypotheses dealing with the relationships of the Economic Priority Index to the respondents’ attitudes, status, age, gender, and community context (unemployment rate) were assessed using bivariate and multiple correlation-regression procedures. The following variables were utilized:

**Environmental Attitudes.** A single item assessed the priority that the respondent gave to environmental concerns: Compared to what is being done now, what priority do you want protection and conservation of the natural environment to have in the future? Responses

¹ While this last item has environmental overtones, it was seen as primarily a measure of support for economic development. The overall question asked: “There are a variety of ways to create jobs and develop Pennsylvania’s economy. Which of the following should have LOW priority, MEDIUM priority, and HIGH priority?” The item dealing with lowering pollution standards to keep and attract business and industry was included in the list which followed, along with the other items used in constructing this scale. “Lowering pollution standards” and “changing local and state taxes” were seen as similar questions in that both asked about the priority that should be given to sacrificing something of value to keep and attract industry. To the extent that the “lowering pollution standards” was also an index to environmental concern, including it in the Economic Priority Index would be expected to inflate the correlation between that index and environmental attitudes.
were scored as follows: 3) higher, 2) same, and 1) lower.\(^2\) "Don’t know" responses and no answers were omitted from the analysis.

**Socioeconomic Status.** Both educational attainment and income were used to measure Socioeconomic Status. Education was indexed in terms of four categories, scored from 1 to 4 as follows: 1) Did not complete high school; 2) Graduated from high school, no further schooling; 3) Some college; and 4) College graduate. Total household income before taxes was operationalized for both time periods in terms of six categories with a 1 assigned to the lowest category and a 6 assigned to the highest income level.

**Age.** Respondent’s age was measured in years.

**Gender.** Gender was dummy coded with 0 = male, and 1 = female.

**Community Context.** Data were obtained from secondary sources (Pennsylvania Department of Labor and Industry, 1990) on the unemployment rates of the counties at the time of each of the surveys. Cases which were missing data on any of these variables were eliminated from the correlation-regression analysis.

### ANALYSIS

Frequency distributions of the responses in 1980 and 1990 to the six items used to assess support for economic growth are shown in Table 1. The selected items are those about which most sample members held opinions as indicated by the low incidence of "don’t know" responses in all cases. Overall, there was substantial support for the encouragement of economic development.

For five of the six items, there was remarkable stability in the pattern of responses across the decade.\(^3\) However, the incidence of "high" priority ratings varied among items. Thus, approximately two-thirds of the respondents in both 1980 and 1990 felt that "high" priority should be given to promoting the development of small businesses. About 60 percent in both time periods specified a "high" priority preference for providing incentives to expand existing industries and to attracting new employers from outside the state. The

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\(^2\) Environmental attitudes have been indexed in a variety of ways in previous research (Van Liere & Dunlap, 1981). The indicator used here, while based on only a single item, had the advantages of simplicity and general comparability in form to the items used to measure economic development attitudes.

\(^3\) The results of significance tests for the differences between the 1980 and 1990 data are not reported here. The size of the combined samples meant that virtually all differences were statistically significant, although many were small and substantively unimportant.
Table 1. Responses to the Items Dealing with Economic Priority, 1980 and 1990

<table>
<thead>
<tr>
<th>Economic Growth Incentive and Year</th>
<th>Priority for the Future</th>
<th>Mean Score(^b)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
<td>Medium</td>
</tr>
<tr>
<td>Promote the development of small businesses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1980</td>
<td>4.0</td>
<td>25.5</td>
</tr>
<tr>
<td>1990</td>
<td>4.3</td>
<td>25.3</td>
</tr>
<tr>
<td>Provide incentives for the expansion of existing industries</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1980</td>
<td>4.6</td>
<td>25.6</td>
</tr>
<tr>
<td>1990</td>
<td>5.5</td>
<td>28.5</td>
</tr>
<tr>
<td>Provide incentives to attract new industries from outside the state</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1980</td>
<td>10.9</td>
<td>23.3</td>
</tr>
<tr>
<td>1990</td>
<td>9.8</td>
<td>25.3</td>
</tr>
<tr>
<td>Change taxes to keep and attract industry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1980</td>
<td>10.2</td>
<td>25.9</td>
</tr>
<tr>
<td>1990</td>
<td>10.4</td>
<td>31.4</td>
</tr>
<tr>
<td>Promote the development of large businesses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1980</td>
<td>17.2</td>
<td>38.5</td>
</tr>
<tr>
<td>1990</td>
<td>14.6</td>
<td>39.1</td>
</tr>
<tr>
<td>Lower pollution standards to keep and attract business and industry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1980</td>
<td>36.1</td>
<td>27.4</td>
</tr>
<tr>
<td>1990</td>
<td>58.1</td>
<td>16.6</td>
</tr>
<tr>
<td>Composite score for all six items</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1980</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1990</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^a\) Response data are presented as percentages.

\(^b\) Mean scores were derived by scoring the answer categories for each item as follows:

1 = low priority, 2 = medium priority, 3 = high priority. Don't know and no answer responses were eliminated in arriving at mean scores.
possibility of changing taxes to keep and attract industry received a somewhat lower endorsement, with 56 percent “high” ratings for 1980 and less than 50 percent for 1990. Support for promoting the development of large businesses was fairly stable with about 40 percent of the respondents in both time periods suggesting “high” priority for this activity. For these five items, the incidence of “low” ratings was always small, generally no more than 10 percent, indicating that there was little anti-growth sentiment expressed by the Pennsylvania citizens sampled in either 1980 or 1990.

Responses to the question dealing with the priority to be given to lowering pollution standards to keep and attract business and industry differed markedly from the other items in this analysis. For one thing, in both 1980 and 1990 “low” priority was the most frequently chosen answer indicating that the respondents did not see this as an appropriate strategy for promoting economic development. Moreover, the incidence of “low” priority answers increased substantially across the decade, and the proportion of “high” and “medium” responses declined, suggesting an increased concern for environmental degradation and a greater reluctance to sacrifice environmental quality for industrial development.

Scores on the composite index measuring support for economic growth also declined between 1980 and 1990, reflecting primarily the decreasing support for relaxing pollution standards. Overall, however, the data show a fairly consistent support for economic growth across the ten-year period studied. The stability in Pennsylvania citizen views between 1980 and 1990 suggests that policy makers who call public opinion into account in the decision-making process are not simply focusing on frivolous or capricious views which shift quickly with changing circumstances as some writers have suggested (Downs, 1972). Rather, the level of citizen concern appeared to evidence considerable constancy across the years.

Of course, it should be clear that these data tell nothing about the stability of attitudes and individual persons across the years. Such an assessment would require information on the views of the same persons through time; these data utilized differing samples at two points in time. It could be that individual views fluctuate widely but, when aggregated, personal changes in one direction are canceled by others’ changes in the reverse direction. Regardless of whether or not individuals experienced marked change, these data suggest that aggregate public opinion is not volatile and dramatic, but gradual and evolutionary.

The second research question assessed the relationships of the Economic Priority Index to environmental attitudes, education, income,
age, gender, and unemployment rate of the county of residence using bivariate and multiple correlation-regression (Table 2).

The Multiple R for the 1980 data ($R = .326$) was considerably larger than the corresponding statistic for 1990 ($R = .250$), indicating that in 1990 the combined effects of these variables accounted for somewhat less of the variation in economic attitudes currently than was true a decade earlier. As predicted, attitudes concerning the priority to be given to environmental preservation were negatively related to attitudes toward economic growth incentives in 1980. However, the relationship in 1980, while significant in both the bivariate case and when the other variables were controlled, was not strong; by 1990, it had virtually disappeared.\footnote{Statistical significance depends upon both the strength of the observed relationship and the sample size. Since the 1980 sample was much larger than the 1990 one, some relationships judged to be statistically significant in 1980 would not have reached significance using the smaller (1990) sample. The samples are best compared by examining the relative magnitude of the correlation and regression coefficients in 1980 and 1990, rather than the significance level.}

The bivariate correlations of education and income to respondent support for promoting economic growth were negative and statistically significant in both time periods. These findings were in accord with the expectation that support for economic development is more widespread among persons with lower incomes and levels of education. While overall anti-growth responses were somewhat more widespread among those of higher socioeconomic status, when other variables were controlled, these relationships declined, and, in 1990, failed to reach statistical significance.

In both time periods, age was a significant predictor of attitudes about economic growth, although the strengths of both the zero order coefficient and the beta coefficient in 1990 were smaller than was the case in 1980. Advancing age was associated with increasing levels of support for economic growth in both the bivariate case and when the effects of the other independent variables were controlled.

In 1980, gender was significantly related to the priority given to economic growth, with men more likely than women to express such concern. In 1990, there was no significant male-female difference in the index-score-means.

In both time periods, respondents living in counties with high unemployment rates were significantly more likely to support economic growth activities than were those in counties with lower unemployment rates. This was true even when the effects of the other variables in the model were controlled.
Table 2. Bivariate and Multiple Correlation-Regression Analysis for the Relationships of Priority Given to Environmental Protection and Selected Demographic Characteristics to Support for Promoting Economic Growth, 1980 and 1990

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>1980 Bivariate</th>
<th></th>
<th>1980 Multiple Regression</th>
<th></th>
<th>1990 Bivariate</th>
<th></th>
<th>1990 Multiple Regression</th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>r-value b-value Beta</td>
<td></td>
<td>r-value b-value Beta</td>
<td></td>
<td>r-value b-value Beta</td>
<td></td>
<td>r-value b-value Beta</td>
<td></td>
</tr>
<tr>
<td>Environmental priority</td>
<td>-.98*** -0.048*** -.061</td>
<td></td>
<td>.001 .021 .023</td>
<td></td>
<td>-.096*** -0.010 -.024</td>
<td></td>
<td>-.093*** .000 -.000</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>-.124*** -.027*** -.064</td>
<td></td>
<td>-.096*** .003*** .115</td>
<td></td>
<td>-.093*** .000 -.000</td>
<td></td>
<td>-.093*** .000 -.000</td>
<td></td>
</tr>
<tr>
<td>Income</td>
<td>-.040*** .014*** .049</td>
<td></td>
<td>.025 .025 .025</td>
<td></td>
<td>.025 .025 .025</td>
<td></td>
<td>.025 .025 .025</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>.273*** .006*** .260</td>
<td></td>
<td>.126*** .003*** .115</td>
<td></td>
<td>.126*** .003*** .115</td>
<td></td>
<td>.126*** .003*** .115</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>-.74*** -.063*** -.075</td>
<td></td>
<td>.029 .029 .025</td>
<td></td>
<td>-.025 -.025 -.025</td>
<td></td>
<td>-.025 -.025 -.025</td>
<td></td>
</tr>
<tr>
<td>Community context</td>
<td>-.135*** -.063*** -.075</td>
<td></td>
<td>.215*** 1.858 -.208</td>
<td></td>
<td>-.066*** -.208 -.208</td>
<td></td>
<td>-.066*** -.208 -.208</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>2.099</td>
<td></td>
<td>.326***</td>
<td></td>
<td>1.858</td>
<td></td>
<td>.250***</td>
<td></td>
</tr>
</tbody>
</table>

*** Significant .001.

Environmental priority: Compared to what is being done now, what priority should be given to protection and conservation of the environment in the future? 1 = lower; 2 = same; 3 = higher.

Education: 1 = Did not complete high school; 2 = High school graduate; 3 = Some college; 4 = College graduate.

Income: Six categories scored from low (1) to high (6).

Age: Measured in years.

Gender: 0 = male; 1 = female.

Unemployment Rate for the County: Assessed for the month of the survey.
DISCUSSION

There is little indication in these data that citizens feel that a "no-growth" policy is appropriate. Most Pennsylvanians gave high priority to various types of economic development activities in 1980 and this support in general did not wane appreciably over the decade that followed. Increasing concern for environmental protection was evidenced by the decreased support for lowering pollution standards. Moreover, although a negative relationship was found in 1980, between the priority given to environmental protection and support for promoting economic growth, by 1990, this association had virtually disappeared. Thus, it seems that people today do not perceive the dual emphases of environmental protection and economic development as incompatible; they do not feel that one alternative must be sacrificed to obtain the other. On the contrary, while supportive of economic growth activities, they also give high priority to pollution control and environmental protection.

That citizens fail to see a conflict between these two goals is further evidenced by the responses to an additional item on the 1990 survey form which asked whether environmental standards should be relaxed to achieve economic growth, whether economic growth should be slowed to protect the environment, or whether we can achieve environmental protection and economic growth at the same time. Only 4 percent would jeopardize the environment and just 29 percent would forfeit economic growth. Most (67 percent) felt that we can have both. This same tendency to chose the "we can do both" response was noted in a 1981 survey by the National Opinion Research Corporation (cited in Ladd, 1982). While some would say that the "both" response is too undemanding and an inappropriate alternative for subjects in attitude assessment surveys, Ladd (1982, p. 20) has argued persuasively that this is not the case:

There is nothing wrong with an item's being undemanding if it captures a clear preference and perspective. It is one thing to insist on avoiding alternatives which, by their consensual attractiveness, rule out differences in public assessments of an issue which need to be explicated. It is quite another to force respondents to choose between two failures, neither of which they want... It's a false choice. It doesn't conform to the way the public views the issues. It assumes a distinction Americans generally don't make... It is just plain bad survey research.

The layman has not been alone in believing that the environment can be protected while, at the same time, the economy grows. Increasingly, academics, scientists and leaders throughout the world concur (Hamrin, 1981; Strong, 1988; Commoner, 1985).
It is important for local leaders, public officials, and community development specialists to understand the nature of their constituencies if they are to be effective in a democratic society. The tendency of most citizens in this study to view economic growth and environmental protection as desirable goals which are jointly obtainable calls into question images touted by the media of a polarized society with pro-growth and pro-environment forces squared off against one another and in perpetual conflict. Rather, most people feel that economic growth and environmental protection should both have high priority. Development options that fail to provide convincing evidence of environmental safeguards may be rejected by the majority of the population, regardless of their potential for positive economic impact.

Previous theorizing and some scientific research suggest that people differ in their support for economic development/growth activities, depending upon their social status, age, gender, and the characteristics of the communities in which they live. However, this study found only limited support for any of these hypotheses.

Education and income level (indices of social status) were negatively and significantly related to economic development attitudes in 1980. However, the relationships were not strong and, in 1990, they were not even statistically significant when the other variables in the model were controlled. Thus, there was little evidence of the existence of a strong or pervasive “elitist” resistance to economic growth.

Older citizens in both 1980 and 1990 were more likely than their younger counterparts to feel that priority should be given to economic growth incentives, although the strength of the relationship declined somewhat across time. Perhaps older people are more likely to endorse traditional ideologies than are younger persons. In the case of the U.S., this would imply support for ideas of growth and progress; perhaps their responses reflect concern for the opportunities of their children.

Men were more likely than women to give priority to economic growth promotion in 1980, but no gender difference was found in 1990. It may be that the increasing incidence of women’s participation in the labor force and, in turn, female concern for available job opportunities may have led to the disappearance of the earlier male-female differences in economic development attitudes.

Although there was consistency in the direction of the relationships of age, gender, education, and income to support for economic growth, the strength of these relationships all declined across the decade. Combined with the decline in the effect of environmental attitudes, these changes suggest that such personal and demographic charac-
teristics are of decreasing utility in specifying the concomitants of support for the promotion of economic development activities.

Persons living in counties with high unemployment rates were the most likely to support economic development activities. This pattern was true in both 1980 and 1990. Moreover, there was no evidence of a weakening of the relationship across the decade. In 1990, county unemployment rate was, by far, the strongest predictor of attitudes toward economic growth of all the variables examined. This suggests that, today, variation among communities or areas in regard to their level of economic need may be much more important in structuring such attitudes than are differences associated with the socio-demographic characteristics of individual persons within the community.

CONCLUSION

The democratic process is at the root of the political process in the United States of America. That process operates most successfully when elected and appointed officials are aware of the will of the general public. In the research reported here, the views of Pennsylvanians were surveyed over a ten-year period, particularly as related to economic development and concerns for the environment. Rather than being alarmist in nature regarding the environment, or aggressive for economic development at all cost, Pennsylvanians were found to be temperate in their views, believing that economic development is possible in the context of sound environmental policies.

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SQUARE HOLES AND ROUND PEGS? FINDING THE THEORY AND METHODOLOGICAL FIT IN COMMUNITY RESEARCH: A CASE STUDY
By Douglas Durst

ABSTRACT
Relevant and constructive research in communities requires a theoretical framework that shapes an appropriate methodology. Finding the theory and methodological fit in social research can be a difficult but important task for the professional community development worker. This paper reports the application of a theoretical model to a comparative study of two Aboriginal communities in the Canadian north. These communities experienced the impacts from hydrocarbon development over a ten year period. The study examined the change in social processes between the two time periods. The study focused on the helping and assistance norms and mutual support systems which were viewed as a continuum from communitarianism (social integration) to privatization (social isolation). Key informants reported how community members would respond to nine situations before and after development. The study identified changes both within and between the communities, finding that members in both communities became more privatized in their responses to social problems.

INTRODUCTION
Finding the fit for a sound conceptual framework based upon empirical research and an appropriate and proven research methodology can be a frustrating experience for the community researcher. Theoretical ideals and principles, easily spouted in the halls of academia, are difficult and sometimes impossible to practice in the so-called "real" world. Perhaps this explains why community developers ranked knowledge and skills in research seventeenth out of twenty-two items in a study completed by Lackey and Pratuckchai (1991). The in-
formed community developer and community group has two choices in meeting the community's need for research that is appropriate and relevant to their situation. They can either conduct the research themselves or supervise research that has been contracted to outside researchers or consultants. Community groups with limited research knowledge and skills often turn to outside specialists to conduct the research on their behalf (Kuehn et al., 1983). There exists the risk that the community may lose control over an important step in the community decision making process.

It must be acknowledged that every research methodology reflects assumptions, values and beliefs represented in a theoretical construction that both shapes and limits the research process. The competent researcher should be sensitive and aware of these inherent assumptions, values and beliefs and how they influence the research. For this reason, it is critical that a community researcher attempting to extract data identify and utilize a framework which is both practical and contextually appropriate. This is particularly important in any cross-cultural community research. Alternatively, it is equally important that community members understand and are in agreement with the conceptual orientation of outside consultants or researchers.

This paper reports the application of a socio-economic model to a comparative research project conducted in two northern communities of Aboriginal Peoples. Over a ten year period, the communities experienced the industrial impacts of hydrocarbon exploration in the Beaufort Sea in the Canadian Arctic. Of particular interest was the social processes of each community. The research sought data that illuminated change in these processes between two time periods. The theoretical model was used to develop a methodology that would:

- allow comparisons between two communities,
- illuminate the change over time in the communities, and
- produce data that was sensitive and relevant in a cross-cultural setting.

The case study demonstrates the model's potential for providing an appropriate theoretical framework for researching the economic and political dimensions of a community as well its social processes.

The following section describes the theoretical framework that has been applied in this study. A brief description of the communities and their differences relevant to this research are discussed in the next section and the methodology and its relationship to the theoretical framework follows. A summary of the findings and their analysis is presented and the paper concludes with a discussion of the application of the model.
THEORETICAL FRAMEWORK

Blishen and his associates (1979) developed a socio-economic model to reveal the changes in social interactions in isolated northern communities. The segment of the model that addressed social impacts has been applied to this research and the key points of it are described in this section.

The model was based upon the theoretical assumption that community change occurs in the "objective" structures of the economic, political and social dimensions of the community which, in turn, exist in a "subjective" climate of social and psychological attitudes and values. Weigel and Bush-Rosnagel (1984) used a similar analysis in their research in measuring change in rural communities. Any industrial development would have impacts on the economic, social, and political dimensions of the community, both direct and indirect. The community reacts to these impacts based upon its social psychological background, and its system of attitudes, beliefs and values. These community responses may in turn influence the economic and social changes taking place (Blishen et al., 1979).

In establishing a definition of the concept of community, Blishen et al. relied on accepted sociological theory, in which a major component of community is the various forms of social bonding. Two distinct forms of bonding can be identified. The first type is bonds "rooted in socially determined inter-personal reciprocity networks" and the second is bonds that "result from economically determined inter-dependency contract relationships" (Blishen et al., 1979, p. 30).

The model examined the community from three major areas or dimensions; briefly, Blishen et al. labelled these dimensions economic viability, political efficacy and social vitality. Economic viability examined the community's economic condition from the perspective of "the community's degree of economic dependence on or independence of the existing regional, provincial, or national economy" (Blishen et al., 1979, p. 10). Political efficacy examined the community's ability to mobilize and exercise its political power or process.

The dynamics of the community's social processes are of particular interest to community developers and human service workers and are the focus of this study. Blishen et al. termed social vitality those social interactions by which community members "become mutually bonded in reciprocal relationships of trust and obligation" (Blishen et al., 1979, p. 35). From these social relationships, the members receive and provide knowledge and information, resources, and the opportunity to resolve conflict and problems. Although the processes can occur at different levels of formality, "their effective functioning
is very important to individual survival at both the material and psychological levels" (Blishen et al., 1979, p. 35). Social vitality can be perceived as a continuum with *communitarianism* (social integration with inter-personal reciprocity) and *privatization* (social isolation with interdependency relationships) at opposite ends.

Because the study was attempting to determine social impacts from hydrocarbon exploration, it required a model that would demonstrate change over time in the community’s social processes. Furthermore, the model must measure change in more than “objective” social indicators. The study was designed to determine the change in the methods residents employed to address social problems and assist one another. It was the actual social process and the residents’ perceptions of this process that needed to be determined. The model afforded the opportunity to research a community’s communitarian-privatization processes from two perspectives. Researchers could determine change between two time periods (before and after exploration) as well as differences between two communities.

**THE COMMUNITIES**

The following section provides a brief background of the communities and highlights a number of relevant differences between the communities including their historical relationship to the geographic area, the pace of industrial development, the presence of traditional economic pursuits and leadership, and the distance from the exploration activity.

The exploration of oil and gas in the high arctic has captured the imagination of Canadians. Throughout the 1970s, multinational corporations began offshore drilling in the Beaufort Sea (Brody, 1987; Dacks, 1981; Page, 1986). Prior to this major industrial activity, the Aboriginal communities in the region experienced gradual social and economic change through their contact with Euro-American society. The fur trade, the whaling industry and military/defense activities impacted on the Aboriginal peoples of the region (Coates & Powell, 1989; Dacks, 1981; McMahon, 1988; Page, 1986). In recent years, the impact of hydrocarbon exploration was felt in all of the communities surrounding the Beaufort Sea.

The Inuit community of Tuktoyaktuk, commonly referred to as “Tuk” (population: 747), was one of the traditional sites of approximately 2,000 Karngmalit Inuit who roamed along the coast of the Beaufort Sea. Between 1850 and 1920, influenza had claimed the lives of all but 20 original Inuit. With the decline of the whaling industry, Alaskan Inuit moved into the area looking for economic
activities to sustain themselves. It is important to note that the present inhabitants of Tuk are relative “newcomers” who began to settle in the area since the 1920s. In addition, these Inuit had a history of contact and employment with Euro-Americans through the whaling industry. By the 1960s, the community had a permanent mission, a school, a nursing station, a police detachment and a military radar installation, the DEW Line site (Aquilain, 1981). With the advent of hydrocarbon development, Tuk could no longer remain the quiet and very traditional settlement it had been (Outcrop, 1984). It rapidly expanded to become the center of the exploration activity with the major corporations constructing sizeable bases that utilized the safety of the Tuk inlet; in a few short years, it became an oil and gas “boom town.”

Fort McPherson, an isolated Dene community of 657 Kutchin Indians, is situated on banks of the Peel River. Because the region had an abundance of fur and game, the Hudson Bay Company established a post there in 1840 (Aquilina, 1981). With the river providing easy access to the land, Native people in Fort McPherson maintained strong traditional ties to the bush lifestyle, seasonally migrating from the community into the surrounding land (Outcrop, 1984). For centuries, the Kutchin Indians have proudly lived in the area. Like Tuk, the community saw the arrival of southern institutions such as a permanent church, a school, a nursing station and a police detachment. However, Tuk and Fort McPherson differ in important ways. The development of southern institutions occurred at a slower pace in Fort McPherson than Tuk. Settlement was more rapid and recent in Tuk and connections to traditional lifestyles more rapidly severed. The Inuit from Tuk had been employed by Euro-Americans as early as the whaling industry of the 19th Century and later with the military. The Native people of Tuk were more dependent upon the industrial activities of Euro-Americans. Ironically, the rise of the whaling industry was based on the industrialization of Europe and its appetite for oil, and the decline of this industry precipitated the migration of the Alaskan Inuit to the area.

Fort McPherson has a longer history as a formalized community and its residents gradually settled in the community while maintaining their affinity to the land. The people moved to the settlement on a seasonal basis while spending a major portion of the year on the river delta. Gradually, most of the residents began to spend longer periods of time in the community. In a sense, the shift from a nomadic lifestyle to a sedentary one was made voluntarily and in increments. Tuk, on the other hand, settled over a period of ten to twenty years as people moved off the land and into the community. The settlement of Tuk
was almost mandatory for the Inuit's survival. There was evidence of a general disenchantment of community life expressed subtly in Usher's (1970, 1971) research over twenty years ago.

Another difference between the communities is the nature of local leadership. The people of Fort McPherson maintained local leadership through both hereditary and regularly elected elders and chiefs. The Inuit of Tuk did not have this formal and community-based leadership; their leadership appeared to be less formalized and diffused. Residents of Tuk spoke occasionally of consulting grandparents or elders but the community did not have a leadership structure such as the chiefs in Fort McPherson. This pattern was documented thirty years ago by Ferguson (1961) who noted that Tuk lacked formal leadership, although elders were occasionally called upon for advice.

Although in the same geographical region, the two communities have differing cultures and experienced the impacts from Euro-Americans differently. Somewhat more isolated, the Dene of Fort McPherson preserved their cultural connections to the land through hunting and fur trapping and experienced southern developments more gradually. The following section describes the research methodology employed in the study of these communities.

**METHODOLOGY**

The theoretical framework shaped the research in such a way as to examine social processes existing within the community and comparing these processes over time. The theory called for a methodology that produced data that were subjective and reflective in nature. Data from social indicators, self administered questionnaires or from individuals without intimate knowledge of the behaviors and actions of community residents would not assist in understanding how these helping processes functioned.

Because Aboriginal communities have strong oral traditions, personal interviews were arranged with 51 key informants who were known and respected community helpers. An interview guide was prepared and used to structure the interviews. The sample represented those individuals who were directly involved in providing social/mutual support services on both the formal and informal levels. The sample was a non-probability "purposive" sample drawn from the population of known "social helpers" from within the community. Only persons actively providing support and help to their community residents would be able to provide the data and they would make an appropriate source of identification of other known and respected community helpers. This snowball technique of sample identification
is an accepted method in community research (Rubin & Babbie, 1989; Grinnell & Williams, 1990). Since the communities were small in size, it was not difficult to identify the para-professional and lay helpers. The use of key informants or “community experts” is an appropriate and efficient sampling technique applied in social impact research (Leistritz & Murdock, 1981).

In the summer of 1986, a total of 51 residents were interviewed from the two sub-samples (26 in Tuk and 25 in Fort McPherson). Almost all of the known “helpers” in each community were interviewed and in the later stages of data collection, the interviews did not generate new data nor suggest other informants not already interviewed. Therefore, the sample was of sufficient size to ensure an accurate representation of the communities.

The sample included a broad spectrum of the residents in each community and analysis revealed that the sub-samples of each community were not significantly different. Each sub-sample included a balance of retired elders and young adults, lay helpers and para-professionals, informal and formal leaders, and men and women. Some of the occupations included hunters/trappers, community social service workers, community development workers, counsellors, elders and band chiefs, employment and wildlife officers, and private entrepreneurs.

The sample was almost exclusively composed of Aboriginal persons. The professional external “helpers” such as non-Aboriginal teachers, nurses and police officers were not included in the sample. Since these helpers were not in the community before development, they would not be able to answer the questions pertaining to pre-development and they may not be able to accurately reflect the community’s cultural perspective.

The interview schedule was patterned after the behavioral and subjective indicators presented in the theoretical framework; hence the instrument was shaped by the theoretical framework described earlier in this article. Community norms applied to resolve social and personal problems were the basis of questions in the instrument. These included questions that asked how the respondent would handle nine different situations relevant to their community. The section on social problems asked questions about petty theft, alcohol abuse, teenage pregnancy, spousal assault and suicide. The respondents were asked how they would handle situations where:

- they observed local children stealing from the community store,
- a personal friend developed a serious drinking problem,
- an unmarried friend informed the respondent that she is pregnant,
• a friend was seriously beaten by her husband, and
• a friend began to talk about attempting suicide.

The personal issues section included questions about where the respondent would go to get a loan, find employment, locate a training program, and find assistance in building a cabin outside of the community.

Both the social problems and personal issues questions were presented as open questions which generated discussion around the topic and permitted the researcher to query the respondent to ensure the accuracy of recorded data. Open ended questions and the opportunity to clarify the respondent's replies are critical in researching cross-cultural settings. It was deemed important for internal validity that the respondents could relate to the situations on a personal level and be sufficiently specific and concrete in description and not in an abstract hypothetical context.

In order to make comparisons over a 10 year period, the respondents were encouraged to discuss how they would respond to the situations before development and in the present. None of the respondents expressed difficulty in remembering how they would have responded and were quick to make comparisons between the two time periods. The dependence upon recall is an important limitation to this research design. It is possible that the respondents unconsciously altered their perceptions; however, the consistency of the data indicated that the recall limitation did not distort the overall findings.

Each of the responses were individually analyzed and categorized according to the theoretical model as being either "communitarian" or "privatized" in nature. For example if residents replied that they would get help from a community elder when they observed children stealing, their responses would reflect a communitarian orientation. On the other hand, if they stated that they would "call the cops" then they would be utilizing a formal external agency and their responses would reflect a privatized orientation. Occasionally, residents replied with responses which were both communitarian and privatized. For example, they may first call the police but then follow up the situation with a visit to the children's home. In these cases, the researcher inquired as to the processes the resident believed would resolve the situation. Because the nature of open ended questions encourages discussion and inquiry, an orientation towards either communitarian or privatized solutions would emerge. Methodologies utilizing self-administered questionnaires would not permit such exploration.

Some respondents replied that they were unsure of how they would
have handled the situation or could not conceive what they would have done; these responses were labelled as “don’t know.” Other respondents clearly stated that they would have avoided the situation and not become involved in the problem; these responses were labelled as “avoid.” Some respondents replied that since the situation rarely occurred, it was not considered a problem in their community; therefore, no action was required.

Both the communitarian and privatized responses were “active” in the sense that the respondents suggested that they would take some form of direct action. In some direct manner, these residents would become involved in the situation by either offering help, making a referral, or reporting the situation to someone else. The responses of “don’t know” and “avoid” were considered to be “passive” in nature because in these incidents the residents recognize the problem or situation but would not be responding to it.

DISCUSSION OF FINDINGS

The data revealed six significant findings that are discussed in the following section. Briefly, these findings are:

- there was a variance in active responses between the two communities before development;
- the frequency of “active” responses increased in both communities;
- privatized responses increased at a greater rate than communitarian responses in both communities;
- social conditions in the communities changed resulting in the emergence of or increase in social problems;
- the frequency of “avoid” responses decreased in both communities; and,
- the increase in the frequency of “communitarian” responses was greater in Fort McPherson than Tuk.

All of the results from the questions on handling social problems and personal needs were totalled and are presented in table 1. The findings show that the level of communitarian responses was slightly higher in Fort McPherson than Tuk before the hydrocarbon development escalated (FtMcP: 4.3 percent, Tuk: 35.5 percent). There were two possible explanations for this difference rooted in the communities’ cultural and historical distinctness. The first of these explanations involves the role of the chiefs. During the interviews, the residents of Fort McPherson repeatedly suggested that they would...
Table 1. Totals of All Questions: Comparison of Responses Between T1 and T2

<table>
<thead>
<tr>
<th></th>
<th>Communitarian</th>
<th>Privatized</th>
<th>Don't Know</th>
<th>Avoid</th>
<th>Not a Problem</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>T1</td>
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<td>50</td>
<td>21.4</td>
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<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>T1</td>
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<td>29</td>
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<td>62.2</td>
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<td>8</td>
<td>3.6</td>
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<tr>
<td>T1</td>
<td>176</td>
<td>38.3</td>
<td>74</td>
<td>16.1</td>
<td>62</td>
<td>13.5</td>
</tr>
<tr>
<td>T2</td>
<td>231</td>
<td>50.3</td>
<td>161</td>
<td>35.1</td>
<td>34</td>
<td>7.4</td>
</tr>
<tr>
<td>Change</td>
<td>55</td>
<td>12.0</td>
<td>87</td>
<td>19.0</td>
<td>-28</td>
<td>-6.1</td>
</tr>
</tbody>
</table>

1 T1: before hydrocarbon development in the area.
2 T2: after hydrocarbon development in the area.
consult the chiefs in the community. No similar form of community-based leadership and assistance was available to the residents in Tuk.

The second explanation for the numerical differences in communitarian responses can be found in the developmental histories of the two communities. Fort McPherson's longer history as a formalized community and its close relationship to traditional lifestyles facilitates communitarian responses. The move to a sedentary lifestyle accelerated the modernization or "industrialization" of the Tuk people (Usher, 1970, 1971). Fort McPherson had maintained a higher level of communitarianism partly because its shift to a community lifestyle had been slower and more gradual than Tuk.

The presence of formal leaders and the differing histories were plausible explanations as to why the communitarian values were higher in Fort McPherson than Tuk before the hydrocarbon development occurred.

The data presented in table 1 indicate that a change occurred between the two time periods (T1 and T2) from the "don't know" and "avoid" (i.e., passive) to the communitarian and privatized (i.e., active) responses. Fort McPherson had a large increase in the number of active responses than Tuk (Tuk: 58, FtMcP: 84); however, the overall responses after development (T2) were approximately the same (Tuk: 186, FtMcP: 206). This change from passive to active responses was found to be statistically significant ($\chi^2 = 49.6, p < .001$). Both communities experienced an increase in both communitarian and privatized responses but with Fort McPherson increasing its communitarian responses at a greater rate than Tuk (Tuk: 3.4 percent, FtMcP: 20.9 percent).

For comparison, table 2 isolates the active responses by presenting the communitarian and privatized responses. It shows that the privatized responses increased at the expense of the communitarian responses in both communities. However, Tuk experienced a greater increase in number and percentage of privatized responses than Fort McPherson (Tuk: 15.9 percent, FtMcP: 7.9 percent). This rate of change was found to be statistically significant in both communities (Tuk $\chi^2 = 7.78, p < .01$ and FtMcP $\chi^2 = 2.25, p < .20$).

The responses which described the hypothetical situations as "not a problem" decreased in both communities between the time periods indicating the emergence of or increase in social problems. Before development, 18.4 percent in Tuk and 14.7 percent in Fort McPherson responded that specific situations were not even considered problems and, therefore, were not relevant before development occurred. After development only 3 out of a possible 234 responses in Tuk and 0 out of a possible 225 responses in Fort McPherson stated
Table 2. Total of All Responses: Comparison of Communitarian and Privatized Responses Between T1 and T2

<table>
<thead>
<tr>
<th>Community</th>
<th>Communitarian</th>
<th>Privatized</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
</tr>
<tr>
<td>Tuktoyaktuk</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T1</td>
<td>83</td>
<td>64.8</td>
<td>45</td>
</tr>
<tr>
<td>T2</td>
<td>91</td>
<td>48.9</td>
<td>95</td>
</tr>
<tr>
<td>Change</td>
<td>8</td>
<td>-15.9</td>
<td>50</td>
</tr>
<tr>
<td>Fort McPherson</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T1</td>
<td>93</td>
<td>76.2</td>
<td>29</td>
</tr>
<tr>
<td>T2</td>
<td>140</td>
<td>68.3</td>
<td>66</td>
</tr>
<tr>
<td>Change</td>
<td>47</td>
<td>-7.9</td>
<td>37</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T1</td>
<td>176</td>
<td>70.4</td>
<td>74</td>
</tr>
<tr>
<td>T2</td>
<td>231</td>
<td>59.1</td>
<td>161</td>
</tr>
<tr>
<td>Change</td>
<td>55</td>
<td>-11.3</td>
<td>87</td>
</tr>
</tbody>
</table>

that the specific situations were not problems! Obviously, these communities experienced major impacts between T1 and T2. The qualitative data confirmed this change in social conditions and the respondents attributed the change to the hydrocarbon development. Some respondents made comments such as: “things really took off ten years ago,” and “the community went ‘haywire’ after the oil companies came.” The data supported the argument that the hydrocarbon development did impact on the social conditions of the two communities by increasing the perception of social problems.

Both communities experienced a drop in avoidance responses between T1 and T2, (FtMcP: -12.4 percent and Tuk: -5.6 percent), and a corresponding increase in communitarian and privatized responses. This decrease in avoidance responses demonstrated a shift from “passive” to “active” responses. After development, the respondents were more willing to become involved in the social conditions and personal problems of their neighbors. The respondents reported that they had increased their knowledge and skills in addressing some of the problems in their community.

The study found that Fort McPherson had strengthened its communitarian responses at a greater rate than Tuk (FtMcP: 20.9 percent, Tuk: 3.4 percent) and Tuk increased its privatized responses at a greater rate than Fort McPherson (Tuk: 21.4 percent, FtMcP: 16.4 percent). The qualitative data collected during the interviews supported this analysis. Between the two time periods, the residents of
Fort McPherson initiated numerous communitarian programs and activities. During the time of hydrocarbon development, Fort McPherson actually increased its communitarian level.

CONCLUSION

During the period of rapid industrial development which occurred due to the intensive exploration for hydrocarbon deposits, the two communities experienced changes in their social processes as indicated by their mutual aid and helping processes. The methodology generated both qualitative and quantitative data indicating that the rapid industrial development was a major contributor to community change. Both communities experienced increased privatization and decreased communitarian functioning in the mutual aid and helping processes. This change in social processes indicated that rapid industrial development alters the community's levels of privatization and communitarianism.

In addition, the community situated closer to the industrial activity experienced the greater changes in values of privatization and communitarianism, suggesting that proximity to industrial development is an important variable.

One could argue that the changes in social processes were reflections of the general industrialization and cultural/social changes that have been impacting on the region as a whole. The increased transportation, communication and government services have all impacted on these northern communities and their combined impact was difficult to isolate from the impact of oil and gas development. However, these second-order impacts followed and supported the impacts attributable to the hydrocarbon development. It has been recognized that these second-order impacts have brought changes in the larger environment and, in turn, have impacted on the social processes of these two communities. But the changes in the broader context have been accelerated by the hydrocarbon development. For example, the upgrading of the Tuk airport was directly attributable to the increased demand for transportation services created by the hydrocarbon activity. The improved accessibility to and from the southern regions impacted on the community of Tuk but the need for the improved service originally came from the oil and gas development.

Community development workers and human service professionals need to be aware of the social impacts on the community from major economic development and that economic development can not be directly equated to “social development.” This study has found that isolated communities experiencing industrial development appear to
shift towards a more privatized orientation of social interaction. Community development workers may desire to increase the communitarian processes. Yet by virtue of "professionalism," they accelerate the trend towards privatization. Unwittingly, community development and social workers are often agents of privatization and professionalization, undermining the existing indigenous processes present in the community. In order to support communitarian processes, community and social workers may need to re-assess their methods of practice.

This paper indicates that the theoretical framework and its resulting methodology did procure data to assess differences between communities and differences between two time periods. The model was sufficiently flexible to permit cultural and community relevancy. The scope of the research was focused on the communities’ social processes and only those of mutual support and helping networks. However, the model limited the nature of the research to examine only the social processes essentially from a functionalist’s perspective. This limiting factor excluded issues such as power relationships, external influences of control and dominance, and community conflict. A methodology from a functionalist’s perspective tends to examine the observable “what is” and avoids the tensions and conflicts underlying the community. With these limitations in mind, the conceptual framework and the resulting methodology does “fit” and provides a useful approach to community research in a comparative and cross-cultural context. The model also offers a potential conceptual framework for researching the economic and political dimensions of the community as well; however further study and analysis of its application needs to be undertaken.

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ASSESSING LOCAL INDUSTRIAL DEVELOPMENT POTENTIAL

By Kevin T. McNamara and Warren Kriesel

ABSTRACT

State and community leaders throughout the United States attempt to attract new manufacturing investment with a variety of state and local investments. Often these investment decisions are made without systematically assessing the influence of factors beyond the control and the probability of return on various investment strategies. This article demonstrates the utility of a model which community leaders can use in evaluating the resources they might allocate to manufacturing attraction efforts.

INTRODUCTION

During the 1960s and 1970s, many manufacturers looked to rural communities as a source of low-skill, low-wage labor. Today manufacturers for whom this is a high priority often locate in third-world countries. Manufacturing employment has lost its predominance in the U.S. economy while employment in service industries has expanded (Rosenfeld et al., 1985; Johnson, 1984; Deaton & Weber, 1986).

Despite this trend, local economic development groups in rural communities continue to focus on recruiting manufacturers (Smith & Fox, 1990). They often fail, but such failure could be avoided by more thorough preliminary analysis. How can local leadership incorporate estimates of their community’s probability of attracting manufacturing investment into their assessment of appropriate development policy? This article addresses this key question by presenting a model which community leaders can use to assess their community’s attractiveness to industry.

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PLANT LOCATION DECISIONS AND LOCAL RECRUITMENT STRATEGIES

A footloose\(^1\) manufacturing firm's decision process is a multi-stage process that begins when the firm decides to invest in a new manufacturing facility (Smith, 1981; Schmenner et al., 1987). The first stage of the process involves selection of a geographic region that optimizes the firm's location with respect to factor supply and product markets. This region could be a state, a multistate area, or other area depending on a specific firm's location requirements. From a community perspective, until this regional location choice is made local policy can do little to influence the firm's site selection decision.

Once a firm has selected a specific region, it searches within the region to identify a specific site that will minimize the firm's cost of production. This search may include evaluation of a variety of sites within the identified region that meet some criterion deemed critical by the firm influencing its cost of production. Selection of a specific site within the region is based on cost factors that include labor availability and costs, agglomeration economies, community's eagerness for industrial development, access to input factors and product markets, and miscellaneous firm cost factors (Kriesel & McNamara, 1991). Quality of life factors also influence a firm's location decision (Hekman, 1982). It is during the site-selection stage of the search process that state and local actions can influence location decisions.

Understanding the factors that influence manufacturing firm location at the county level provides leaders with insight into what local development policy options influence new manufacturing investment. Community location factors presented in table 1 can be divided into two types, those that cannot be locally controlled and those that can be influenced by local government policy. As leaders examine their community's potential for attracting new industry, they should consider how their community compares to other communities in regard to both types of location factors. Investments in factors that the community can influence, like industrial site quality, may be fruitless if the community lacks other attributes that are important to firms.

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\(^1\) A footloose firm is one that is not restricted to a specific location because of supply or demand related constraints.

\(^2\) The focus of these studies have been community or state factors that influence firms' location decisions. The analysis has not considered specific needs of firms by industry or type, such as by standard industrial classification (SIC) code. The limited number of location observations of any particular SIC code are not sufficient in any one state to permit cross sectional analysis.
Table 1. Community Location Factors

<table>
<thead>
<tr>
<th>Category</th>
<th>Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Agglomeration factors</td>
<td>population (1), (3), (5), (6)</td>
</tr>
<tr>
<td></td>
<td>population density (5)</td>
</tr>
<tr>
<td></td>
<td>commercial employment (1)</td>
</tr>
<tr>
<td></td>
<td>number of manufacturing plants (5)</td>
</tr>
<tr>
<td></td>
<td>distance to SMSA (2), (3)</td>
</tr>
<tr>
<td>B. Labor quality/cost/availability</td>
<td>labor force size (2)</td>
</tr>
<tr>
<td></td>
<td>unemployment rate (4), (8)</td>
</tr>
<tr>
<td></td>
<td>wage rate (1), (5)</td>
</tr>
<tr>
<td></td>
<td>percent of adult population with high school diploma (6)</td>
</tr>
<tr>
<td></td>
<td>labor productivity (1)</td>
</tr>
<tr>
<td></td>
<td>distance to vocational school (5)</td>
</tr>
<tr>
<td></td>
<td>distance to four year college (2), (7)</td>
</tr>
<tr>
<td>C. Transportation facilities</td>
<td>interstate highway access (2), (4), (5), (7)</td>
</tr>
<tr>
<td></td>
<td>distance to airport (5)</td>
</tr>
<tr>
<td>D. Access to capital</td>
<td>bank assets (5)</td>
</tr>
<tr>
<td></td>
<td>bond financing (2), (7)</td>
</tr>
<tr>
<td>E. Site facilities and services</td>
<td>site quality (2), (7)</td>
</tr>
<tr>
<td></td>
<td>public site ownership (2), (7)</td>
</tr>
<tr>
<td></td>
<td>site price (4)</td>
</tr>
<tr>
<td></td>
<td>sewer capacity (5)</td>
</tr>
<tr>
<td></td>
<td>zoning (5)</td>
</tr>
<tr>
<td></td>
<td>location incentives (8)</td>
</tr>
<tr>
<td></td>
<td>funded development group (6)</td>
</tr>
<tr>
<td>F. Taxes</td>
<td>property tax rate (3), (8)</td>
</tr>
<tr>
<td></td>
<td>inventory tax relief (4)</td>
</tr>
<tr>
<td>G. Public services</td>
<td>per pupil school expenditures (2), (7)</td>
</tr>
<tr>
<td></td>
<td>high school math achievement test score (6)</td>
</tr>
<tr>
<td></td>
<td>fire protection rating (2), (4), (7)</td>
</tr>
</tbody>
</table>

1 Factors listed have a statistically significant relationship to manufacturing locations in cited studies.
2 Number in parentheses corresponds to number(s) of the study/studies in which variable was significant.

(1) Agthe and Billings
(2) Debertin, Pagoulatos and Smith
(3) Dorf and Emerson
(4) Kriesel and McNamara
(5) Kuehn, Braschler and Shonkwiler
(6) McNamara, Kriesel and Deaton
(7) Smith, Deaton and Kelch
(8) Walker and Calzonetti
A general conclusion from location studies is that a community's attributes influence location choices for new manufacturing investment. Communities can make policy decisions to improve their attractiveness to industry. Industrial site quality, local taxes and local public services are three categories of local determinants that local policy can influence. Efforts to develop industrial sites with more services, to lower property and inventory taxes, and to expand local school, public safety, and fire protection services have positive impacts on a community's probability of attracting new manufacturing investment. Communities considering manufacturing recruitment as a strategy, however, should be aware that these investments may not help communities overcome disadvantages, such as poor highway access and a small labor force. Local leaders' expectations of the potential returns to various investments must be well thought out before any such investments are made. Location decisions are based on firms' assessment of how well specific industrial development sites meet some minimum cost and other location criteria.

The next section of the paper uses a model developed by Kriesel and McNamara (1991) to illustrate how community leaders can 1) assess their probability of attracting manufacturing investment, and 2) examine how their probability of attraction will change in response to local investment which improves community characteristics.

A COUNTY LEVEL INDUSTRIAL LOCATION MODEL

A county level industrial location model was estimated by the authors to determine communities' probabilities of attracting new manufacturing investment, and to identify community factors that impact firms' location decisions. The manufacturing location model included community location factors classified as either a) factors that are beyond a community's ability to influence or, b) factors which communities can directly control and change through local investment. A county-level ordered, categorical logit model was used to estimate the probability of a Georgia county attracting a manufacturing plant. The model and complete empirical results are described in Kriesel and McNamara (1991). The analysis was conducted over the 1987-1989 period, during which 92 of Georgia's 159 counties attracted one or more new manufacturing facilities.

Table 2 illustrates use of the statistical analysis to examine the relative influence of each location factor on firms' decisions. The first column lists the location factor and the second column describes a change in the location factor. The third column gives the percentage
## Table 2. Effects of Location Factors on Probability of Attracting Manufacturing Plants and Certainty of the Effect

<table>
<thead>
<tr>
<th>Factor</th>
<th>Description of Change</th>
<th>Effect on Probability of Getting One Plant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Controlled Factors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interstate Highway</td>
<td>County gets a new interstate highway</td>
<td>+6.8%*#</td>
</tr>
<tr>
<td>Weekly Manufacturing Wage</td>
<td>Wage increases by $50, from $289 to $339</td>
<td>+0.7%</td>
</tr>
<tr>
<td>Miles to College</td>
<td>Distance increases from 26.6 to 46.6 miles</td>
<td>-3.2%</td>
</tr>
<tr>
<td>Miles to Metropolitan Area</td>
<td>Distance increases from 18.9 to 38.9 miles</td>
<td>-2.2%</td>
</tr>
<tr>
<td>Unemployment Rate</td>
<td>Rate increases by 2%, from 6.4 to 8.4</td>
<td>+7.4%*#</td>
</tr>
<tr>
<td>Percentage of Black Residents</td>
<td>Percent increases from 29.9% to 37.9%</td>
<td>-8.0%*</td>
</tr>
<tr>
<td>Community-Controlled Factors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High School Completion Rate</td>
<td>Rate increases from 61% to 71%</td>
<td>-2.5%</td>
</tr>
<tr>
<td>Effective Tax Rate per $1,000 Property</td>
<td>Rate increases by $5.00, from $8.68 to $13.68</td>
<td>+4.1%</td>
</tr>
<tr>
<td>Inventory Tax Relief Referendum</td>
<td>County passes the referendum</td>
<td>+7.8%*#</td>
</tr>
<tr>
<td>Fire Protection Rating</td>
<td>Rating improves from 6 to 4</td>
<td>+9.4%*#</td>
</tr>
<tr>
<td>Per Acre Price of Industrial Site</td>
<td>Price (quality) of site increases from $1,000 to $5,000 per acre</td>
<td>+2.2%*#</td>
</tr>
</tbody>
</table>

* These effects are the differences between two probabilities, before and after the described change.

*# Indicates that the location factor is significantly different from zero at the 95 percent level.

increase in probability (for average Georgia county) from a specified change.\(^5\) For example, the average county with no interstate highway had a 75.9 percent chance of attracting a plant. With an interstate, its chance is 82.7 percent, an increase of 6.8 percent.

\(^5\) The probabilities are calculated by evaluating a first degree polynomial: \( z = a + b_1X_1 + \ldots + b_nX_n \), where \( a \) and \( b \) are estimated by the logistic regression, and the \( X_i \) are the location factors. The probability is found by inserting \( x \) into the logistic transformation formula: \( \text{Probability} = 1/[1 - \exp(-z)] \).
A location factor’s importance is judged by two things: a) its effect on location probability and b) the certainty of that effect, signified in the third column with the superscript symbol. Table 2 indicates that factors most closely related to location decisions are the presence of an interstate highway, the unemployment rate, the percentage of black population, passage of the inventory tax referendum, the fire protection rating and the price (quality) of the industrial site. The effects of these six factors on probability are large and they are statistically significant at the 95 percent level. The remaining five factors are also important, due to either conceptual grounds or the previous research that showed them to be important. However, in the context of this Georgia research the influences of these other factors are less certain than are the six most significant factors.

The local unemployment rate was included in the model as a measure of labor availability. Its significance suggests that firms consider local labor availability in location decisions. The inclusion of racial composition is suggested by Till’s research (1986), where counties with a high proportion of blacks were found to attract fewer manufacturers. The interstate mileage variable was included as a measure of access to transportation routes. While these variables do not measure location factors that community leadership can directly impact, they provide valuable information to communities considering manufacturing recruitment as a local development strategy. Communities that have a small labor force or lack interstate highway access, for instance, should be aware that they are at a competitive disadvantage.

Other factors which influence manufacturing location can be controlled by a community. Three of these variables in the model were statistically significant: passage of inventory tax relief referendum, local fire protection rating, and the quality of local industrial development sites. Communities which enact inventory relief (which reduces a firm’s local tax liability) will increase their probability of attracting manufacturing investment. Passage of the tax relief referendum also serves as a signal that the community has a cooperative spirit towards business.

The second significant influence on location decisions was the local fire protection rating. Communities that improve local fire protection will have a positive impact on their probability of attracting new manufacturing investment. Improved fire protection serves to reduce a firm’s insurance premiums. Furthermore, the upgrading of a com-

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4 This negative association between the proportion of minority population and industry location could be due to several factors. Among these are racial discrimination, a perceived higher propensity for Blacks than Whites to unionize, or a perception that areas with high minority populations lack skilled and educated workers.
munity’s fire protection is usually accompanied by the improvement of its water, sewer and related public services which directly benefit businesses.

The third locally-controlled variable associated with firm’s location decisions was a measure of local industrial site quality. Communities can invest in one of several industrial site attributes to increase a community’s attractiveness to firms seeking industrial sites. Site quality is related to three site specific attributes: lot size, the site’s distance to an interstate highway, and the distance to an airport with air service. Community characteristics also influence the site’s quality. These include educational attainment of adult population, the size of the local manufacturing base, the civilian labor force size, and whether or not the community is in a metropolitan area. While communities can improve the quality of local industrial sites by purchasing larger tracts of land that have good highway and railroad access, community characteristics limit the impact that communities can have on improving the quality of their industrial sites.

All but two of the location factors from table 2 have the expected influence on location decisions. The two factors which influenced in an unexpected direction are both insignificant variables. The manufacturing wage has a positive effect, contrary to expectations. If this model had accounted fully for the quality (or education level) of labor, then higher wages should have negatively influenced plant location. The high school completion rate was also a negative influence. This was not expected because employers should expect higher production and profits from better educated workers, and counties with better educated workers should be more attractive to new manufacturing investment. Even with these unexpected effects, the overall statistical model can correctly predict 76 percent of plant locations in all 159 Georgia counties between 1987 and 1989.

It should not be a surprise that the effective tax rate has a positive effect on location. Counties that tax themselves are able to raise revenues which finance better public services that companies need. An example is the fire protection rating used here, plus police service, sewer and water.

**Application of the Location Model to Local Development Planning**

A county’s leadership can use the results of a manufacturing location model to evaluate a) their chances of attracting a manufac-

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5 The measure was derived from a hedonic price analysis of industrial sites throughout the state.
turing plant to their county and b) alternative strategies of attracting a plant. For example, with an estimate of a Georgia county’s probability of attracting new manufacturing investment, leaders from that county can consider the expected returns from various recruitment investments. They can make an estimate of the local tax revenue cost that would result from passage of a local inventory tax relief ordinance and compare it with costs of other development options such as further development of an industrial site or improvement of the local fire protection rating. Comparing the probability increases with the associated costs will indicate which investment is the most cost effective.

An analysis of 34 Georgia counties with an estimated probability of plant location of less than 50 percent indicates that passage of the inventory tax relief referendum, improving the county’s fire protection rating, and increasing the quality of a local industrial site would increase the county’s probability of attracting a new plant (Kriesel & McNamara, 1991). Substantial improvements in existing industrial site (approaching $1 million) would be needed to increase their probability an additional five percent. Improving the fire protection by one rating point in the same community increases probability of attracting new manufacturing investment by nearly eight percent. Therefore, if a county can achieve the one point improvement in its fire protection for less than $1 million, than investment in fire protection (and similar public services) would be more cost effective than investing in industrial site improvements for increasing the community’s probability of attracting a new firm. Adopting local inventory tax relief increases the county’s probability of attracting a firm by about eight percent. The cost associated with this policy option can be estimated with local tax records and compared to the costs of other strategies aimed at improving the community’s attractiveness to industry.

It is important for county leadership to realize a vital distinction between investing in industry-specific items versus public services that impact firms’ costs. A speculative shell building, paved access roads or industrial tax breaks yield benefits only if the county actually attracts a new plant which uses those investments. On the other hand, local investment in public services, such as police and fire protection, schools and public utilities, provide benefits to county residents even if they do not attract a plant.

The Georgia counties’ probabilities of attracting new plants are not easily transferable to localities in other states or regions because of variation in the general attractiveness of regions to industry, and in the types of and numbers of industries locating in different states
Table 3. Probability of Attracting New Manufacturing Investment for Georgia Counties by County Type

<table>
<thead>
<tr>
<th>County Type</th>
<th>Number of Counties</th>
<th>Probability(^2)</th>
<th>Probability(^3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code 1</td>
<td>18</td>
<td>.93</td>
<td>.86</td>
</tr>
<tr>
<td>Code 2</td>
<td>20</td>
<td>.81</td>
<td>.70</td>
</tr>
<tr>
<td>Code 3</td>
<td>8</td>
<td>.90</td>
<td>.82</td>
</tr>
<tr>
<td>Code 4</td>
<td>27</td>
<td>.73</td>
<td>.57</td>
</tr>
<tr>
<td>Code 5</td>
<td>42</td>
<td>.71</td>
<td>.54</td>
</tr>
<tr>
<td>Code 6</td>
<td>21</td>
<td>.56</td>
<td>.37</td>
</tr>
<tr>
<td>Code 7</td>
<td>23</td>
<td>.53</td>
<td>.18</td>
</tr>
</tbody>
</table>

1 County types are based on an urban-rural continuum code presented by Butler (1990). Nine classification codes were collapsed into seven because two codes had less than 5 observations.
2 Probability of attracting one new manufacturing plant.
3 Probability of attracting two or more manufacturing plants.

of regions. The importance of specific community attributes in attracting firms, however, does provide insight into which local policies have the greatest impact on a community’s attractiveness to industry. It also suggests which types of communities have higher probabilities of attracting new manufacturing plants.

In order to gain more general information about local recruitment prospects, probabilities were computed using the mean values of county factors for Georgia counties grouped by Beale’s urban-rural continuum (Butler, 1990). Beale’s ten categories were collapsed into seven categories because of limited observation in two categories. Location probabilities were estimated for the resulting categories (table 3). The number of counties in each category is reported along with the estimated probabilities of attracting one new manufacturing facility (Probability 1) and two new facilities (Probability 2).

In Georgia, a state that has been among the leaders in attracting new manufacturing investment throughout the past thirty years, even the most remote county has a probability of attracting new industry that is greater than 50 percent. Even in Georgia, however, industries have a strong urban bias in selecting sites. County codes 6 and 7, representing the 44 most rural counties, had probabilities 37–40 percent lower than the code with the highest probability of attracting a new plant (Code 1-urban counties), and 15–18 percent lower than the Code 5, the next less remote group of rural counties. The differences for Probability 2 was 49–68 percent for Code 1 and 17–36 percent for Code 5. These estimates suggest that rural communities are at a disadvantage in competing with urban communities for new manufacturing investment. The more remote and smaller the rural county, the greater the disadvantage.
SUMMARY AND CONCLUSIONS

Location trends and recent location research provide general insight into a specific community's potential for attracting new manufacturing investment. An agglomeration of population and economic activity, labor availability and quality, air and highway transportation facilities, industrial site quality, and local public services were important location factors in most of the research cited. In general, communities with larger economies and populations are more attractive for manufacturing firms because many firms can operate at a lower cost of production at these sites. These communities should consider industrial recruitment options as part of their local development strategy. Local policy can influence a community's probability of attracting new manufacturing investment and its ability to compete with other communities for manufacturing investment. Analysis of a community's location attributes can help local leaders target industrial recruitment spending to get the greatest increase in the community's location probability per local dollar spent.

Small and rural communities are often less attractive to industry than urban counties. Rural communities in some regions of the United States, however, have successfully attracted manufacturing plants in the late 1980s. Three factors that are beyond local control, interstate highway access, available labor, and regional location, tend to be key factors in these plant locations.

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IMPORTANCE OF COMMUNITY ETHNIC BACKGROUND IN COMMUNITY ACTIVENESS

By Timothy O. Borich, Peter F. Korsching, and Peggy Petrzelka

ABSTRACT

Anthropological research suggests that the predominant ethnic background of rural communities is related to the ability of the communities to adapt to social and economic change. A distinction made for Midwest farming communities is between yeoman farming communities of German background and entrepreneur farming communities of English background. This paper examines the effect of ethnicity, both in terms of the specific ethnic group(s) and the homogeneity on participation in the Iowa Community Betterment program. It is hypothesized that the greater the percentage of the population with German ancestry within a community, the more likely the community's mobilization toward collective action. The findings provide marginal support for this hypothesis, and suggest that community development professionals should approach communities as extremely complex phenomena with a broad complex of factors that ultimately determine the success of development programs.

INTRODUCTION

Close examination of small rural communities reveals social and economic similarities across communities that are in close proximity to each other, are of similar size, and have similar ecological, political and economic environments. Such examination also will reveal that communities may differ in the age structure of the residents, the types of jobs and the employment/unemployment mix, the vitality of the commercial sector, the activeness of the civic clubs, and the willingness of local residents to participate in addressing community problems. One of the first tasks of the community development practitioner in working with a community is to sift through these similarities...

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and differences and determine which will be critical to success in working with the community.

One of the community characteristics often overlooked by the community development practitioner working with rural communities is the ethnic background of the residents. Ethnicity is a factor frequently given more consideration in urban community development than in rural community development. Urban communities or neighborhoods are often typified by their predominant ethnic stock. It is common, however, for rural communities, especially Midwestern rural communities, to be thought of as having lost their ethnic identity and to be basically indistinguishable from each other. Our community needs assessment surveys query respondents on many personal characteristics such as age, occupation, marital status, and even political party affiliation and religious preference. But rarely, unless we have some specific interest in the topic, do we ask respondents about their ethnic background. Should ethnicity have a more central role as an independent variable in planning and implementing development programs in small, rural communities? In a recent article published in *Rural Development Perspectives*, Sonya Salamon (1989) makes the point that a predominant ethnic background can be an important factor in the nature of the community, how it develops, and how it adjusts to externally imposed change. Salamon suggests different ethnic groups will have had different settlement patterns and different cultural beliefs, each resulting in a unique community structure and behavior patterns. As Salamon (1989, p. 19) states, “... when I compared communities in the same geographical area, with similar soils and crops, and served by comparable roads connecting them to cities equally distant, I found neighboring communities with very different personalities, depending on the dominant ethnic origin of the local population.” Salamon does state that community response to externally imposed changes is not solely explained by ethnic heritage, “... but within a shared context of American traditions, cultural beliefs help explain the contrasting responses between communities in similar situation” (1989:20).

In her research, Salamon (1989) distinguished between two types of communities based on ethnic background. The first is the German “yeoman” community which is typified by a predominantly agricultural base. The individual farmers’ goals are to own their land and pass it on to the children to insure continuity of the farming family tradition. The second, the Yankee (English) “entrepreneur” community is typified by farmers that regard the farm as a business to optimize short run financial returns. To entrepreneurs the land is just another input that can be bought and sold. Salamon found that
the difference in the structures of the communities and how these two types of communities responded to change was largely a function of the predominant ethnic background, after controlling on several other relevant factors.

Salamon used ethnographic methods in her study. The study included 12 small farming communities in Illinois, but the results of only two communities, one each for the German and Yankee communities, were included in the article cited here (Salamon, 1989). From a sociological perspective, a logical question is whether this study could be replicated with a broader range of communities using methods more common to sociologists. Such a study could provide additional validation of Salamon’s hypotheses and guidance for community development practitioners on the need to consider community ethnic background as a major factor in community development programs. Therefore, the objective of this research is to replicate Salamon’s research with sociological methods. Secondary data are used for a random sample of Iowa rural communities to examine the relationship between ethnic background and community activeness.

THEORETICAL PERSPECTIVE

Ethnicity in communities has been described as social categories based on a few gross indicators of a life style related to meeting common needs, maintaining social boundaries, providing services and gaining interpersonal support (Logan & Molotch, 1987). The relationship between ethnicity and agricultural structure has been addressed by both anthropologists and sociologists. Salamon’s study (1984, 1985) on differences between farm tenure and expansion activities between Illinois German and Yankee communities, and the Flora and Stitz study (1985) on the survival rates of German and native non-German farmers in a Kansas wheat county are but two examples. Our interest is in the Salamon study.

Using ethnographic methods, Salamon finds that ethnicity affects not only agricultural structure but also may affect the rural community’s structure (Salamon, 1985, 1989). In comparison with Yankee communities, she observed less out-migration of youth, greater population stability, and a less diversified economy in rural German communities. Studies by Flora and Stitz (1985) and Foster et al. (1987) support Salamon’s finding on ethnicity’s affect on community economic diversity. They found that Yankee or British farmers are more likely to have sources of off-farm income than German farmers.

20), "Even if farming no longer dominates the local economy, vestiges of traits inherent to a community's founding and settling pattern influence its evolution. Yeoman or entrepreneur farming patterns and the community loyalty that results from these contrasting family goals help shape this personality."

Borich and Korsching (1990) demonstrated how the image rural residents have of their community can affect the community's innovativeness. Salamon (1989) found yeoman (German) communities are more socially stable and less innovative than entrepreneur (Yankee) communities. Maintenance of families and the family farm become predominant goals within the German community thereby creating less of a climate for innovation or entrepreneurship (1985, 1989). She states, "Throughout this examination, the basic assumption is that many aspects of farming, community, and agricultural structure are by-products of overarching ethnic family goals" (1985:327).

The findings of Salamon (1984, 1985, 1989) and Flora and Stitz (1985) have major implications for rural community development. If, as Salamon suggests, rural community structure is based upon local ethnicity, the capacity of a community to adapt to changing environments should be predictable by the community's ethnic make-up. Such trends as changes in population, economic diversification, and participation in community development programs should be affected in part by the ethnic composition of the community.

It should be noted, however, that several sociological and economic perspectives would challenge the basic assumptions underlying the linkages between community ethnicity and community development (adaptation). The assumption that rural communities are dependent upon agriculture and the agricultural economy is no longer valid for most rural communities, including rural communities in the Midwest. Also being questioned is the assumption that family farming unidirectionally determines rural community well-being (Swanson, 1990; Shaffer et al., 1986; Heffernan & Campbell, 1986; Korsching & Stofferahn, 1986). In the context of part-time farming and off-farm income opportunities, Hoiberg and Lasley (1986) have called for more research on how agricultural structure is affected by local communities.

The assumption that local community actions can determine population growth or overall economic well-being has also been questioned. Salamon (1989) posits that ethnic heritage affects the way rural communities respond to economic and demographic changes they face. The capacity of a small rural community to affect population change is severely limited by its ecology (size of population, proximity to other communities, etc.) and the need for extralocal ties
(Hawley, 1986; Warren, 1978). In testing the relationship between
growth promotion and community population growth, Krannich and
Humphrey (1983) found that growth mobilization efforts often are
inconsequential when compared to extant economic and demographi­
c trends.

This raises the question whether ethnicity is a relevant topic for
community development in a modern society that is becoming more
homogeneous (Glazer & Moynihan, 1963). Breton (1964) sees ethnic
communities going through a life cycle in which they form, grow,
and disappear. Among immigrants in Montreal, Breton saw the in­
fluence of ethnic communities upon its members dissipate as they
learned the new language, enlarged interpersonal networks outside
of the ethnic community, and as fewer new migrants joined the com­

Human ecology views the basic process of human relationships as
competition for scarce resources and organization of the population
for survival (Miley, 1980). Community evolves from humans adjust­ing
to their larger environment (Hawley, 1944). Therefore, community
linkages to the larger society and the manner in which communities
adjust within those linkages is highlighted in human ecology (Luloff,
1990). The organization of collective action is seen as a means through
which communities adapt to their collective environment (Duncan,
1959; Hawley, 1971).

The local ecology often is viewed as the backdrop for community
action (Wilkinson, 1986; Luloff, 1990; Kaufman, 1985; Murdock &
Sutton, 1974). Location, size and proximity to other communities
may either constrain or facilitate collective community organization
and action. Whereas extracommunity ties can inhibit community ac­tion
(Warren, 1978), they may also empower rural communities by
providing a greater resource and information base than available
locally (Richards, 1984).

To demonstrate the relationship of ethnicity on agricultural struc­
ture, Salamon (1984) attempted to hold constant geographic location
in her study by selecting communities in a contiguous eleven county
area. Although Salamon (1989) states that yeoman and entrepreneuri­
ial communities are associated with dominant Midwestern ethnic
groups, and the communities therefore are highly representative of
Midwestern communities, questions remain about the applicability of
the ethnicity variable toward broader community development ques­
tions. Does ethnicity affect community structure as well as agricultural structure? Does ethnicity affect local rural communities in varying environs or only in selected cases? Does ethnicity inhibit or enhance community ability to act collectively and adapt to a changing environment? Is the level of ethnic homogeneity of the community important for collective community action, and is the dominance of a single ethnic group simply one measure on a homogeneity/heterogeneity continuum?

Salamon (1989) elaborates on several relationships of ethnicity to community structure that should be tested in a broader geographic context. Based upon her ethnographic studies, the primary hypothesis is:

1. The greater the percentage of the population with German ancestry within a community, the more likely the community’s mobilization toward collective community action.

Additional related hypotheses also based upon her ethnographic studies are:

2. The greater the percentage of the population with German ancestry within a community, the greater the number of younger and older people in the community.
3. The greater the percentage of the population with German ancestry within a community, the fewer the number of individuals commuting to employment locations outside the community.
4. The greater the percentage of the population with German ancestry within a community, the lower the economic diversity of the community.

METHODS

The purpose of this research is to replicate Salamon’s study on a larger geographic scale and use methods that are more common to sociologists. After careful consideration it was deemed feasible using a sample of Iowa rural communities and secondary data from several sources about those communities to measure the major variables included in Salamon’s (1989) research (Iowa Department of Economic Development, 1989, 1992, 1993).

Sample

Salamon’s research was conducted with small farming communities. Following Salamon, the population of communities for our study was
rural incorporated towns with estimated population size less than 2,500 in 1987. Iowa had 831 towns of this size in 1987, from which we selected a random sample of 200. The populations of the towns in the sample ranged from 10 to 2,270, with a mean of 578. About 80 percent of the towns were less than 1,000; well within the range of Salamon’s rural communities.

Dependent Variable: Community Activeness

Salamon (1989:24) states that in comparison to English (entrepreneur) communities, the populations of German (yeoman) communities “… are community oriented, a personality highly suited to cooperative efforts. They are willing to work toward sustaining communities because they believe that what benefits the community benefits them.” A measure of community activeness is needed that 1) is for the improvement of the community, 2) is a cooperative effort of community residents and 3) and is relatively consistent across all communities.

Participation in the Iowa Community Betterment Program (ICBP) meets these criteria. The ICBP was initiated in 1971. Its goals are to promote a grassroots, self-help approach to community development by encouraging volunteers to work on community improvement projects. Local park expansion, community center renovation, recycling projects, community theater development, library expansion, and community health care projects are among the community activities generated through ICBP (Iowa Department of Economic Development, 1992).

The mission of the Iowa Community Betterment Program is to “encourage a higher quality of life in Iowa’s cities, counties and neighborhoods” through empowering local communities (Iowa Department of Economic Development, 1993). Incentives for community participation are provided through annual awards of small grants to what are judged the best community projects. Communities in competition for these awards are categorized by population. Awards are given for each population category.

The Iowa tradition of self-reliance is a key factor in the success of the program (Iowa Department of Economic Development, 1989, p. 1). Iowa communities participate in this program on a voluntary basis and receive notification of the program annually. Of the 200 communities in the sample, 87 or 44 percent have participated in ICBP. As the measure of community activeness, a dummy variable indicating whether or not the community participated in ICBP was created.
Independent Variables: Measure of Ethnicity

Salamon (1984, p. 166) apparently determined the predominant ethnicity of the communities by authenticating the ethnic origins of the family names of the landowners she interviewed. She neither provides any indication of the ethnic homogeneity or measures of ethnic predominance in the communities, nor considers these factors in her analysis. The discussion in her paper does suggest, however, that the more predominant and homogeneous the German population the more likely the community will be active (Salamon, 1989).

In our measure of ethnicity we have attempted to include both the predominance and the homogeneity dimension. The measures of ethnicity are based upon 1980 census data. The first variable capturing the homogeneity dimension, titled “Yeoman,” was created by subtracting the percentage of single ancestry English from the percentage of single ancestry German in each respective community. For the predominance dimension a second measure of ethnicity, “Yemix,” was created by subtracting the percentage of people having multiple ancestry in addition to German from those having multiple ancestry in addition to English.

We realize these measures of ethnicity may not have perfect correspondence with Salamon’s (1989, 1985, 1984) measures. In her research, community included the town and its hinterland, whereas we include only the geographic area of the community corporation. Therefore, our measure may miss the differences in ethnic diversity between the town and its farming hinterland. Also, Salamon’s measure of Yankee included English and Scottish, whereas ours, due to census limitations, includes only English.

Additional Variables

Salamon (1989, 1985, 1984) suggests there are several correlates of ethnic background that determine the nature of the community. The German community makes efforts to maintain within the community both younger families with children and older retired people, whereas the Yankee community allows the market to take its course in determining population structure. She suggests that in the Yankee community young people leave searching for better jobs and retirees leave for the sunbelt. Community attraction for the younger and older sectors of the population is measured with the dependency ratio (DR):

\[
\text{DR} = \frac{\text{Population under 20 years + 65 years and over}}{\text{population 20–64 years}} \times 100
\]
Salamon (1989) also suggests that Yankee communities will have a higher degree of commuting to jobs outside the local community than German communities. To measure degree of commuting, we computed the percentage of workers who had less than 10 minutes of travel time to work as reported by the census. We assumed that for the size of communities in the sample, 10 minutes or more travel time would take the worker well beyond the formal and informal boundaries of the community.

Finally, Salamon (1989, 1985) suggests that Yankee communities will have a more diversified local economy. To measure local economy diversification, we used a formula for the division of labor (Gibbs & Martin, 1962):

\[ D = 1 - \frac{\sum X^2}{(\sum X)^2} \]

where D is the division of labor or economic diversification among industries and X is the number of persons in each industry, using the Census Standard Industrial Classification.

In addition to the variables Salamon discussed, we wanted to include variables that past research has shown to be related to community activeness. The first is community population, which is an indicator of the human capital resources available in the community for community activities, measured by the 1990 population. The second variable is proximity to urban or metropolitan areas. It is measured by the rural-urban continuum codes, a classification scheme (The Beale Code) that distinguishes metropolitan counties by size and nonmetropolitan counties by degree of urbanization or proximity to metro areas (Butler, 1990). Each community received the score of the county in which it was located.

The distribution, mean and standard deviation of the variables are found in Table 1.

**ZERO-ORDER CORRELATION**

Table 2 contains zero-order Pearson correlations among all the variables. The data provide some support for Salamon’s thesis. Participation in ICBP is related to ethnic background (Hypothesis 1). Both measures of ethnicity are positively correlated with participation in the Iowa Community Betterment Program but the correlations are weak. Thus, German heritage in an Iowa community’s ethnic background is related to community action through the ICBP.

Salamon (1989) suggests that in German communities there is greater retention of younger and older persons with the community (Hypothesis 2). This relationship is not supported by the correlations.
between the ethnicity variables and the dependency ratio. Salamon also posits that in German communities more workers will be employed locally, or conversely, fewer will commute to nearby urban centers for employment (Hypothesis 3). The data support this relationship with positive correlations between both ethnicity variables, Yeoman and Yeomix, and percent commuting to employment with less than 10 minutes travel time.

Finally, Salamon posits that English communities will have greater economic diversity (Hypothesis 4). Although this hypothesis is not tested directly, the data suggest no association between the tendency of German ethnicity in rural communities and economic diversity as measured by the division of labor variable. Although these data are inconsistent with Salamon’s theory, a large body of research on rural communities has shown that economically viable rural communities maintain a greater local employment base, and a greater local employment base in rural communities is generally related to economic diversity (Shaffer, 1989; Deavers, 1988). Results of this research are

### Table 1. Ranges, Means and Standard Deviations for Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Range</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICBP participation</td>
<td>0-1</td>
<td>.44</td>
<td>.50</td>
</tr>
<tr>
<td>Yeoman</td>
<td>-22-71</td>
<td>17.49</td>
<td>20.21</td>
</tr>
<tr>
<td>Yeomix</td>
<td>-28-85</td>
<td>28.37</td>
<td>23.52</td>
</tr>
<tr>
<td>Dependency ratio</td>
<td>39-215</td>
<td>102.37</td>
<td>22.72</td>
</tr>
<tr>
<td>Travel time</td>
<td>0-78</td>
<td>35.32</td>
<td>18.65</td>
</tr>
<tr>
<td>Division of labor</td>
<td>.00-.92</td>
<td>.86</td>
<td>.09</td>
</tr>
<tr>
<td>1990 population</td>
<td>7-2,270</td>
<td>574.83</td>
<td>526.03</td>
</tr>
<tr>
<td>Rural-urban continuum</td>
<td>2-7</td>
<td>6.30</td>
<td>1.83</td>
</tr>
</tbody>
</table>

### Table 2. Zero-order Correlations Among All Variables

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ICBP participation</td>
<td></td>
<td>.21*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Yeoman</td>
<td></td>
<td></td>
<td>.94**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Yeomix</td>
<td></td>
<td>.23**</td>
<td></td>
<td>.06</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Dependency ratio</td>
<td>.02</td>
<td>.08</td>
<td>.06</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Travel time</td>
<td>.28**</td>
<td>.27**</td>
<td>.24**</td>
<td>.19*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Division of labor</td>
<td>.16</td>
<td>.11</td>
<td>.09</td>
<td>.02</td>
<td>.31**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. 1990 population</td>
<td>.33**</td>
<td>.03</td>
<td>.02</td>
<td>.01</td>
<td>.27**</td>
<td>.40**</td>
<td></td>
</tr>
<tr>
<td>8. Rural-urban continuum</td>
<td>.07</td>
<td>-.02</td>
<td>-.08</td>
<td>.16</td>
<td>.32**</td>
<td>-.10</td>
<td>-.13</td>
</tr>
</tbody>
</table>

N = 198.

1 tailed significance: * = .01, ** = .001.
consistent with this body of research. There is a moderate, positive correlation (.31) between percent employed locally and division of labor.

The 1990 community population is moderately related to ICBP ($r = .33$). Predictably, as the population of rural Iowa communities increases so does labor diversity ($r = .40$) and the numbers of residents commuting shorter distances ($r = .27$).

**A DISCRIMINANT ANALYSIS**

Having determined that several of the independent variables are related to ICBP participation, we wanted to sort out the combined effect of these variables and each variable’s relative contribution. We chose discriminant analysis as the statistical technique for this procedure. Discriminant analysis is a statistical technique for predicting the category into which a case is most likely to fall (Hedderson, 1991). While discriminant analysis provides many of the benefits of a regression analysis, it is appropriate for data with a nominal or categorical dependent variable. Specifically, discriminant analysis uses predictor variables in an attempt to correctly classify cases into categories that are mutually exclusive (Kachigan, 1986).

The differences between two or more groups of objects may be examined with respect to several variables simultaneously through discriminant analysis (Klecka, 1980). Known cases then may be compared to the predicted cases based upon the variance between the dependent variable and the series of independent variables. Classification is accomplished through the use of discriminant functions or linear combinations of independent variables.

Iowa’s rural communities examined in this study are classified into two categories as a measure of community activeness: participation or nonparticipation in the Iowa Community Betterment Program. Four independent variables were identified through the zero-order correlations as having a statistically significant association with ICBP participation. These four variables were the two ethnicity measures, Yeoman and Yeomix, and the two ecological variables, 1990 population and the percentage of employed persons commuting less than ten minutes to work (travel time).

These four variables were included in a discriminant analysis to predict community participation in the ICBP program. The close association of the Yeoman and the Yeomix variables is indicated by a zero-order correlation of .941. A forward stepwise procedure to minimize the Wilk’s Lambda coefficient was used to eliminate redundant variance among the independent variables (Klecka, 1980). The
Table 3. The Effect of the Independent Variables on the Discriminant Function

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Standardized Discriminant Coefficient</th>
<th>Pearson Correlation Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990 Population</td>
<td>.692</td>
<td>.742</td>
</tr>
<tr>
<td>Yeomix</td>
<td>.472</td>
<td>.504</td>
</tr>
<tr>
<td>Travel time</td>
<td>.399</td>
<td>.625</td>
</tr>
</tbody>
</table>

stepwise process dropped the Yeoman variable with a minimum tolerance level of .001.

One function was derived through the discriminant analysis of the remaining three variables with an eigenvalue of .215 and a canonical correlation of .421. The Wilk’s lambda of .823 indicates that the discriminant score accounts for almost 18 percent of the variance between Iowa Community Betterment Program participation and non-participation. Transforming the Wilk’s lambda into a chi-square value of 37.9 with 3 degrees of freedom reveals a significance level of .000. Therefore, we conclude that the combination of the variables travel time to employment, 1990 population of the community, and percentage of the community population with partial German heritage does have an impact on community activeness.

Table 3 provides an analysis of the effect of each independent variable on the discriminant function. Population contributes most in determining the discriminant function score, with the ethnicity variable second and travel time to employment third. Although all three variables have strong associations with the discriminant score, the ethnicity variable only contributes to the score; it does not determine the score.

Higher discriminant scores tend to correlate with communities with larger populations, greater percentages of those populations with some German heritage, and a greater degree of the population not commuting long distances to work. Therefore, communities with a high discriminant score tend to be consistent with at least three characteristics of Salamon’s (1985, 1989) Yeoman community. Conversely, communities having low discriminant scores should reflect more of the characteristics of a Yankee community.

While the odds of randomly classifying correctly the participation or nonparticipation of a community in the Iowa Community Betterment Program is 50 percent, the discriminant function correctly classified participation two-thirds of the time (Table 4). Table 4 also indicates that the discriminant function is better at correctly identifying the communities that are participating in the Iowa Community
Table 4. Classification of Community Activeness Through the Discriminant Function

<table>
<thead>
<tr>
<th>Actual Participation</th>
<th>Number of Cases</th>
<th>Predicted Community Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participated</td>
<td>111</td>
<td>Participated 78 (70%) Not Participated 33 (30%)</td>
</tr>
<tr>
<td>Not Participated</td>
<td>87</td>
<td>Participated 34 (39%) Not Participated 53 (61%)</td>
</tr>
</tbody>
</table>

Percent of cases correctly classified: 66%

Betterment Program (70 percent) than identifying the communities that are not participating (61 percent). In this respect, it may be easier to predict community activity in Yeoman communities than the lack of activity in English or Yankee communities.

DISCUSSION

Salamon’s thesis on the effects of ethnicity on community activeness and community structure gleans some support from these data on Iowa communities. Of key interest to community development professionals is the potential of ethnic composition to determine collective community action. Are the residents of a German community more likely than an English community to act collectively as Salamon suggested? The data provide a qualified “yes.”

Although they were settled 100 to 150 years ago, the vestiges of ethnic heritage do seem to have some impact on the level of community activeness of Iowa’s rural communities. Communities with a German heritage are more likely to participate in the Iowa Community Betterment Program than English communities. Community ethnicity, however, explains only about four percent of participation. Ethnicity’s value in predicting community collective behavior in rural Iowa communities is marginal.

IMPLICATIONS

If community development is to be predicated upon collective community action, then factors affecting local action must be considered by the community developer. Attempts to gain participation in collective community action may have to be tailored to local cultural
variables that are not readily visible to the community developer. Community participation or non-participation in volunteer oriented community development programs (e.g., Iowa Community Betterment Program) may be influenced by the vestiges of ethnic settlement patterns occurring over a century ago.

Examining the relationship between rural Iowa communities' ethnicity and their participation in the Iowa Community Betterment Program lends some support to the hypothesis that the ethnic composition of a community may affect its capacity for collective action, and may help explain why some communities act and others do not. Community development professionals, however, should use caution in making generalizations about the potentials for success in community development activities based on community ethnic composition. As the data indicate, the ethnic composition of Iowa rural communities has a marginal effect on community activeness. Other variables (e.g., size of the community population and the availability of local employment) also have an impact upon rural community activeness. And, as past research has shown, the larger societal economic, social and political trends cannot be ignored in community development activities.

One should be cognizant, however, that Iowa's rural communities have relatively homogeneous populations. While the communities included in this study are similar in composition to those communities studied in the series of articles by Salamon (1984, 1985, 1989), they do not reflect the more ethnically diverse rural communities of other regions in the U.S. That a relationship does exist between ethnic background and activeness among Iowa's relatively homogeneous rural communities should alert community development practitioners and researchers working in communities of more pronounced ethnic diversity. Additional research is needed on the relationship between a community's ethnic composition and activeness, especially in communities with ethnic differences that are more strongly ingrained and of more recent origin.

A salient implication of this study is that focusing on one particular factor as a key to success in community development efforts is an oversimplification of an extremely complex phenomenon. Community developers must consider many factors (e.g., local context, community image, extralocal ties) when helping a community plan for development. Ethnicity may be one factor that contributes to the disposition of some communities to act, but it is only one of many. Community development professionals should neither over generalize on the impact of ethnicity on community activeness, nor ignore its potential influence.
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AN EXAMINATION OF THE NIMBY SYNDROME: WHY NOT IN MY BACKYARD?

By John M. Halstead, A. E. Luloff, and Sean D. Myers

ABSTRACT

Logit analysis of New Hampshire survey data indicates “NIMBY” (not in my backyard) beliefs over solid waste management facilities is primarily motivated by concerns for children’s health. Respondents willing to host a local recycling center or viewing recycling as a short-lived phenomenon are less likely to exhibit NIMBY attitudes. Results indicate NIMBYs are not a homogeneous group.

INTRODUCTION

With the closure of a large percentage of the country’s landfills, the problem of solid waste disposal in the United States has reached crisis proportions. Despite the generally recognized need for new disposal facilities, finding host sites has become extremely difficult. Besides stringent engineering criteria, local and regional opposition to these facilities is often the source of delay or even cancellation. A National Science Foundation (1976) report states that citizen resistance is the greatest single obstacle to proper land disposal. More recently, Bealer and Grider (1984, pp. 365, 366–367) note that although “siting is a crucial juncture where sociological aspects create bottlenecks . . . the amount of research concerned with trying to find out how siting may be effectively done or, conversely, how it stumble about or fails, is minuscule.” Such local behavior is typical of what has been called the “NIMBY” or not-in-my-backyard syndrome. It is generally thought that NIMBY-opposition to facility siting comes

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from people in close proximity to the facility who bear high (real or perceived) costs while the facility's benefits accrue to a larger outside population (Raiffa, 1985; Hadden & Hazelton, 1980). Some also feel that the siting process for undesirable facilities is inherently unfair; that is, such facilities are more likely to locate in low income than in affluent communities due to the former's lack of political power or the need to expand its community tax base (Voth & Herrington, 1983; Kasperson, 1987). Nieves et al. (1992) note that equity concerns have been a driving force behind siting conflicts.

The problem of siting solid waste management facilities is of concern to rural as well as urban communities. In addition to their own waste, rural communities have been the receptors of waste hauled from urban areas with increasing frequency since they tend to be poorer and less densely settled (Kline, 1991; Bailey, 1992; Bealer et al., 1982).

The objective in this study is to determine the motivations behind NIMBY belief regarding these landfills, waste-to-energy plants, or recycling facilities rather than to voice an opinion on the need for them. A number of studies have examined what compensation mechanisms or "bidding games" might affect NIMBY behavior (for example, O'Hare et al., 1983; Portney, 1985; Zeiss & Atwater, 1987; Swallow et al., 1992; Kunreuther & Easterling, 1990). There have been fewer efforts to ascertain just what characterizes these segments of the public. A basic premise of this study is that by first determining who these people are, the design policy tools for addressing community concerns via compensation and other strategies will be facilitated.

Using data on recycling behavior, environmental attitudes, location, and sociodemographics from a household survey conducted in three New Hampshire towns, those parties who perceive that a community landfill constitutes a negative externality are identified and an analysis of factors influencing local attitudes toward a siting of such a facility is conducted. A logit model is used to identify the most significant factors in determining whether individuals display NIMBY (or non-NIMBY) beliefs and how changes in these variables would affect the probability of NIMBY beliefs.

The Solid Waste Management Dilemma

The U.S. generated 180 million tons of municipal solid waste (MSW) in 1988; as of 1987, between 80 and 90 percent of this waste was disposed of by landfilling (U.S. EPA, 1990). In recent years, increased realization of the environmental problems of burying waste has re-
sulted in the closure of many landfills; in addition, many landfills have reached or are near capacity (U.S. Congress, 1989). In New Hampshire, the number of community and regional landfills declined from 83 in 1980 to 52 in 1990; only two are predicted to have more than three years of useful life remaining under current conditions (NHDES, 1990; OSP, 1988).

Partly because of the removal or increased cost of this waste disposal option, alternative disposal methods such as recycling and refuse-to-energy are being scrutinized more closely. However, while recycling appears to be catching on nationwide both through local initiative and federal mandate, problems such as choosing the most cost effective methods for collection and processing and finding markets for the goods remain (Wiseman, 1991).

**Landfill Siting and Local Opposition.** Even with growth in alternative waste disposal methods like recycling and waste to energy, a need for landfill space will exist well into the future. While the need for land disposal facilities is generally acknowledged, host sites continue to be extremely difficult to identify. Morell and Magorian (1982) note that local opposition is a principal barrier in constructing new waste disposal sites.

Local public opposition to landfill siting may have several adverse consequences. First, it may delay siting of the facility, necessitating higher waste disposal costs in the interim. Second, short term disposal methods (such as non-landfill storage of incinerator ash) may result in greater health risks to the local public than proper disposal. Third, the capital costs of delay may be substantial, in terms of additional interest payments or increased facility cost. If local opposition should succeed in blocking construction at the preferred site, a shortage of landfill space or siting at a physically or locationally sub-optimal site could occur.

**Previous Research on Facility Siting**

NIMBY behavior is certainly not a new or limited phenomenon. For example, 62 percent of respondents in a survey of residents of five Massachusetts towns were opposed to having a waste treatment facility sited in their community (Portney, 1985), while a national survey found 56 percent of Americans opposed to siting a new landfill in their community (Byers, 1990). Previous studies have identified a

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1 A recent survey found that even respondents who considered themselves “environmental activists” indicated that recycling could not solve the solid waste problem without incineration by a 47 to 34 percent margin (Byers, 1990).
number of similarities in opponents (or proponents) to local facility sitting. In general, older residents tend to be less likely to exhibit NIMBY behavior, possibly due to familiarity with the “town dump” of years past or perhaps because older residents are less likely to have young children in their household (Brehm & Rydant, 1988; Zeiss & Atwater, 1987; Rydant, 1988). The presence of children in the household has been found to increase the sensitivity to facility impacts (Zeiss & Atwater, 1987). Piller (1991) found that those involved in NIMBY activities had no particular affinity with environmental groups. Neither income nor education have been found to influence sensitivity to waste management facility siting (Zeiss & Atwater, 1987; Madisso, 1985). Past studies have also identified a fear of ground water contamination, property devaluation, and health risks as principal motivating factors in NIMBY behavior (Wirth & Heinz, 1991; Rydant, 1988). Other negative externalities noted have been traffic and noxious odors (Zier, 1988; Bealer & Crider, 1984; Rydant, 1988).

Nor is NIMBY behavior limited to solid waste management facilities. Previous studies have demonstrated local aversion to nuclear waste storage facilities (Halstead et al., 1984; Kunreuther & Easterling, 1990), research laboratories (Piller, 1991), mental health facilities (Smith & Hanham, 1981), and group homes for the developmentally disabled (Epp & Gelman, 1990).

THE CASE STUDY

In order to address the NIMBY syndrome, it is first necessary to identify the factors which motivate this behavior. A survey of three New Hampshire towns was performed to determine what percentage of local respondents expressed sentiments which might lead to NIMBY behavior, and how these individuals could be characterized by attitudinal factors and sociodemographic variables.

The three towns, Exeter, New London, and Newmarket, were chosen to reflect a variety of sociodemographic characteristics and waste disposal systems. Exeter uses a voluntary curbside pickup system to collect recyclable goods. Located in the seacoast area, Exeter has a population of 12,481 (5,025 households); mean 1989 household income was approximately $44,990. An estimated 75 percent of households participate in the recycling program, diverting approximately 15 percent of the municipal solid waste generated in the town (Fowler, 1991). The MSW which is not recycled is brought to a town-owned landfill.

New London uses a voluntary drop-off center to collect recyclable materials. It is estimated that the program is diverting 25 percent of
the refuse which would otherwise be incinerated at the Claremont waste-to-energy plant (Whitaker, 1991). Located approximately 50 miles northwest of Concord, New London is a rural town with a population of 3,182 (1,153 households). In 1989 the mean household income in New London was $71,790.

Newmarket had no recycling program at the time of the survey. Located in the seacoast region, Newmarket has a population of 7,157 (2,924 households), and had a mean household income of $44,990 in 1989. The population consists of mostly blue-collar workers, and an increasing number of junior faculty members and students from the University of New Hampshire. MSW is brought to the regional waste cooperative incinerator in Durham, New Hampshire (excluding that recycled in programs outside Newmarket).

The Survey

Using voter registration lists, a random sample of 200 households was selected from each town. Budget constraints restricted sample size. Instructions were provided to each household sampled, clearly indicating that the questionnaire should be completed by the person in the household with the most responsibility for recycling. A two-wave mailing (with postcard reminder) was begun in early April, 1991; this technique yielded 308 useable questionnaires (88 from Exeter, 125 from New London, and 95 from Newmarket). The aggregate multi-wave survey effort achieved a response rate of approximately 66 percent. For further elaboration on the survey and results, see Myers and Halstead (1992).

Indications of NIMBY Beliefs by Survey Respondents

For the purposes of this study, individuals who accept the social need for facilities such as landfills but objective to these facilities being sited in their own communities are considered to be motivated by “NIMBY” beliefs. For the sake of brevity, those who would tend to

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2 Voter registration lists often suffer from inaccuracies since not all adults vote, residents come and go between elections, and some communities fail to update these lists. However, alternative sample sources (such as telephone books or tax rolls) also suffer from errors.

3 For example, in order to change the margin of error of results from ±8 percent to ±5 percent, the sample size would have had to be increased to 600 households per town, which would have greatly exceeded our total budget. Regardless, as footnote 7 indicates, no significant differences in the factors chosen to examine NIMBY beliefs across towns were discovered.
accept a waste management facility are labeled "YIMBYs"—Yes, In My Backyard (SRDC, 1990).

The survey asked a series of three questions to determine attitudes toward MSW management facilities: First, did the respondent consider these facilities (landfills and waste-to-energy plants) necessary to help solve the trash problem? Second, would the respondent accept a landfill or waste-to-energy plant in their own community? And finally, would the respondent accept a recycling center in their own community? Responses were based on a five-point Likert scale (1 = strongly disagree, 5 = strongly agree, 3 = neutral). As Figure 1 indicates, most respondents felt that landfills and incinerators are a necessary component to solving the solid waste problem. However, this figure also illustrates the possible contradiction between accepting the need for the facility and the willingness to have one in one's own "backyard."

Table 1 presents the average results of these three questions. While care must always be taken in interpreting averages from ordinal scale data, the results indicate that respondents in all towns tended to agree that landfills were necessary. However, when asked whether they would accept these "necessary" facilities in their own communities, support declined sharply. T-statistics presented in Table 1 show that responses to question two were significantly lower than those to ques-
Table 1. Respondents' Attitudes Toward Solid Waste Management Facilities Sited in own Community vs. Other Communities

<table>
<thead>
<tr>
<th></th>
<th>Exeter</th>
<th>New London</th>
<th>Newmarket</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean*</td>
<td>Mean</td>
<td>Mean</td>
</tr>
<tr>
<td></td>
<td>(Std. Dev.)</td>
<td>(Std. Dev.)</td>
<td>(Std. Dev.)</td>
</tr>
<tr>
<td>1. Solid water disposal facilities such as landfills and waste-to-energy plants are necessary to help solve our trash problems</td>
<td>3.62 (0.97)</td>
<td>3.93 (1.02)</td>
<td>3.78 (0.89)</td>
</tr>
<tr>
<td>2. I would not object to having a new landfill or waste-to-energy plant built in my community</td>
<td>2.68 (1.16)</td>
<td>3.18 (1.13)</td>
<td>2.80 (1.25)</td>
</tr>
<tr>
<td>3. I would not object to having a new recycling facility built in my community</td>
<td>3.60 (1.00)</td>
<td>3.92 (0.95)</td>
<td>4.03 (1.03)</td>
</tr>
</tbody>
</table>

**T-tests**

- Questions 1 and 2: 5.17b
- Questions 2 and 3: 4.94b

*a Based on five point Likert scale, 1 = strongly disagree, 5 = strongly agree.
*b Significant at the 99 percent confidence level.

...tion one for all three towns. Support for recycling facilities in all three respondents' communities was significantly higher than support for landfills (as illustrated by the second set of t-tests). This support, however, does not appear overwhelming, indicating that respondents may perceive some of the same negative externalities from recycling centers (e.g., noise, traffic, vermin) associated with landfills. In general, the responses indicate a concern over landfills, incinerators, or even recycling centers locating in their towns.

**Identification of NIMBY Beliefs**

In order to identify true "NIMBY" beliefs, a two step screening procedure was used. As noted, the survey respondents were asked to respond via Likert scale to the following statement:

Solid waste disposal facilities such as landfills and waste-to-energy plants are necessary to help solve our trash problems.

Respondents who answered strongly disagree or disagree were excluded from further analysis since they apparently disagreed with the necessity of landfills and waste-to-energy plants anywhere. Including respondents who disagreed with this statement in later analysis would...
be effectively mixing responses from two different groups, and so would cloud the inquiry. Neutral responses were also excluded, leaving a total sample of 146 (after adjusting for missing data).

The second step of the procedure involved the use of responses to the following statement:

I would not object to having a new landfill or waste-to-energy plant built in my community.

Respondents who disagreed with this statement were defined as exhibiting NIMBY beliefs. These individuals accepted the need for the facility, but were not willing to have it sited in their community. By this method, 49 of the 146 respondents (33.6 percent) were classified as exhibiting NIMBY beliefs.

The Model

The dependent variable was specified as the display of NIMBY (dependent variable = 1) or YIMBY belief (dependent variable = 0). Since this is a dichotomous dependent variable, the logit technique was chosen for analysis. The model was of the form:

\[ P_i = \frac{e^{z_i}}{1 + e^{z_i}} \]

where

\[ P_i = \text{probability of "NIMBY" belief by } i^{th} \text{ individual} \]
\[ z_i = \sum_{j=1}^{11} \beta_j x_{ij} \]
\[ \beta_j = \text{estimated parameter values} \]
\[ x_{ij} = \text{vector of characteristics such as educational level, income, and environmental attitudes of } i^{th} \text{ individual} \]

Variables Included in the Analysis

Based on the studies previously noted and additional hypotheses, a total of 11 independent variables were included in the analysis.

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4 "Strongly disagree" or "disagree" accounted for 36 of the 288 (12.5 percent) total responses. "Neutral" accounted for another 33 responses (11.5 percent). Thus, about 76 percent of survey respondents felt that landfills or waste to energy plants are necessary to help solve the MSW problem.

5 This question was also based on a 5-point Likert scale, with responses of 3 (neutral; 27 responses or 18.5 percent of the subsample) dropped.
These variables sought to incorporate environmental attitudes, family size and characteristics, education, and age into the model. Specific variables were defined as follows, with expected effects in parentheses:

- **RECYCLE**: 1 if respondent recycles, 0 otherwise (>0)
- **RDIFF**: Recycling is one way I can make a difference (>0)
- **RTROUBLE**: Recycling is not worth the trouble (<0)
- **RFAD**: The recycling fad of the 1990s will eventually fade away (<0)
- **R POLLUTION**: Recycling is an alternative waste disposal method which does not contribute to air or ground water pollution
- **RTHROW**: It seems that we are simply throwing away valuable materials that should be recycled (>0)
- **CHILDREN**: 1 if grade school age children in household, 0 otherwise (>0)
- **ENVGROUP**: 1 if respondent belongs to environmental group, 0 otherwise (>0)
- **AGE**: Respondent’s age, in years (>0)
- **EDUCATION**: 1 if college graduate, 0 otherwise (>0)
- **TRANSFERS**: 1 if respondent would not object to a recycling facility in his/her community, 0 otherwise (<0)

An expected positive effect of a variable indicates that increases in that variable would increase the probability that a respondent would exhibit NIMBY belief, while a negative expected effect indicates the opposite expectation. It was hypothesized that those who would accept a recycling station in their community would be less likely to exhibit NIMBY belief, since both recycling facilities and landfills or incinerators generate many similar externalities (traffic, noise, odor) and so might be equally palatable to the individual.

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6 Models were estimated which included dummy variables to account for the three different towns in the study; however, since none of these variables were statistically significant, we could not reject the hypothesis that NIMBY behavior based on model variables did not vary from town to town. Results of these tests for pooling are available from the authors upon request.

7 Responses to this question and the following four attitude questions were based on a 5-point Likert scale, 1 = strongly disagree, 5 = strongly agree.

8 Examination of collinearity diagnostics did not reveal collinearity problems between the independent variables.
Table 2. Results of Logit Model to Determine Factors Motivating NIMBY Beliefs

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Estimated Coefficient (Std. Error)</th>
<th>Asymptotic T-Ratio</th>
<th>Change in Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECYCLE</td>
<td>-0.0538 (0.6386)</td>
<td>-0.084</td>
<td>-0.0111</td>
</tr>
<tr>
<td>RDFF</td>
<td>-0.3589 (0.3683)</td>
<td>-0.974</td>
<td>-0.0742</td>
</tr>
<tr>
<td>RTROUBLE</td>
<td>-0.1756 (0.3867)</td>
<td>-0.454</td>
<td>-0.0363</td>
</tr>
<tr>
<td>RFAD</td>
<td>-0.8949 (0.4115)</td>
<td>-2.175**</td>
<td>-0.1850</td>
</tr>
<tr>
<td>RPOLLUTION</td>
<td>-0.0355 (0.1921)</td>
<td>-0.185</td>
<td>-0.0073</td>
</tr>
<tr>
<td>RTHROW</td>
<td>-0.0225 (0.3184)</td>
<td>-0.074</td>
<td>-0.0048</td>
</tr>
<tr>
<td>CHILDREN</td>
<td>1.2904 (0.5554)</td>
<td>2.410**</td>
<td>0.2668</td>
</tr>
<tr>
<td>ENVGROUP</td>
<td>-0.2802 (0.6385)</td>
<td>-0.439</td>
<td>-0.0579</td>
</tr>
<tr>
<td>AGE</td>
<td>-0.0321 (0.0200)</td>
<td>-1.610</td>
<td>-0.0056</td>
</tr>
<tr>
<td>EDUCATION</td>
<td>0.3961 (0.6552)</td>
<td>0.605</td>
<td>0.0819</td>
</tr>
<tr>
<td>TRANSFERS</td>
<td>-3.4649 (0.7038)</td>
<td>-4.923***</td>
<td>-0.7164</td>
</tr>
<tr>
<td>CONSTANT</td>
<td>6.5893 (2.9606)</td>
<td>2.226**</td>
<td></td>
</tr>
</tbody>
</table>

* Computations at sample means.
*** Statistically significant at .01 level.
** Statistically significant at .05 level.

n = 146.
Likelihood Ratio Test = 56.64 with 11 df.
McFadden R²:0.304.

RESULTS

Results of the logit model are presented in Table 2. Three of the 11 independent variable coefficients were found to be statistically significant at the .05 level or above. The sign and significance of the children coefficient indicate that families with children are more likely to exhibit NIMBY beliefs than those without. This may be because the long-term perceived health effects of waste disposal facilities might affect children the most and for the longest period. Those who think recycling is merely a short-lived fad are less likely to exhibit NIMBY beliefs; these individuals may see landfills and waste-to-energy plants...
as being the inevitable mode of waste disposal. Those individuals who were amenable to having a recycling center sited in their communities were also less likely to exhibit NIMBY beliefs. As previously noted, many of the externalities of a landfill or incinerator might be shared by a recycling center. Thus, if an individual does not object to these externalities in a recycling center, he or she might not object to them in a landfill.

Although the age variable was not significant at the .10 level (t = -1.61), its sign was consistent with initial hypotheses. Membership in an environmental group had no effect on NIMBY beliefs, consistent with previous findings (Piller, 1991).

Perhaps what is most surprising are the other variables whose coefficients were not significant. For example, actual recycling activity in the household had no effect on NIMBY beliefs. Possibly, even avid recyclers felt that recycling alone was not sufficient to solve the solid waste problem (see footnote 2). Favorable attitudes toward recycling were not found to influence NIMBY beliefs.

The McFadden's $R^2$ of .30 indicates that the model has a moderate amount of explanatory power. This is confirmed by an examination of the prediction success table (Table 3). The model is able to correctly predict 81.5 percent of sample observations behavior. If predictions were made based simply on prior probabilities, a success rate of about 66 percent would be achieved; the model therefore increases prediction success by more than 20 percent. To further elaborate, if all responses were placed in the NIMBY category (the "one" column in the prediction success table), 49 errors would result. In this model, however, only 27 sorting errors occur (a reduction of about 45 percent). Despite this improvement, the model is considerably more successful at predicting YIMBY than NIMBY beliefs: 91.8 percent of YIMBY cases were correctly predicted compared to only 61.2 percent of NIMBY cases.

Calculation of Probability Estimates

Using equation (1), the probability that an "average" individual (i.e., with mean values for the explanatory variables) would exhibit NIMBY beliefs is about 29 percent. While logit coefficient estimates cannot be used to directly estimate changes in probability of NIMBY beliefs due to changes in the independent variable, these marginal probability changes can be derived\(^9\) (Capps & Kramer, 1985). These

\(^9\) Through the formula $\beta \cdot f(z_i)$, where $f(z_i) = e^{z_i}/(1 + e^{z_i})^2$. 
Table 3. Prediction Success Table

<table>
<thead>
<tr>
<th>Predicted</th>
<th>0</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>89</td>
<td>19</td>
</tr>
<tr>
<td>1</td>
<td>8</td>
<td>30</td>
</tr>
</tbody>
</table>

Number of correct predictions: 119.
Percentage of correct predictions: 0.815.

Changes in probability are presented in Table 3. A one-unit increase in the variable RFAD leads to a 19 percent increase in probability of YIMBY beliefs. A one-year increase in age leads to less than a 1 percent increase in probability of YIMBY beliefs.

In order to meaningfully interpret the variables “presence of children” and “attitude toward hosting a community recycling center” it is most useful to examine the probability of exhibiting NIMBY with values at the extremes (e.g., with and without children). Holding all other variable means constant and using equation (1), the probability of NIMBY beliefs for a family with no children is only 23 percent; for a family with children, this probability is 52 percent. The probability of an individual who would accept a recycling center in his or her town would exhibit NIMBY beliefs is only 17 percent; when one considers individuals who would not accept a recycling center, this probability is over 87 percent.

CONCLUSIONS

The results of this study indicate that several factors may characterize individuals who engage in “NIMBY” behavior. In particular, for many the answer to “why not in my backyard?” is that children are there. This behavior may well be motivated over concerns for children’s health and safety, and by the bequest issues in leaving a potentially noxious problem for future generations to manage. From a policy standpoint, increased education on the potential environmental and health effects, state-of-the-art safeguards in today’s landfills, and avenues for compensation for adverse impacts may help allay these fears; in any case, this education will insure that individuals make informed choices. Thus, compensation mechanisms should be designed to address concerns over children’s health and safety. On the basis of this research, current approaches such as providing public parks and/or property value guarantees would certainly not achieve this end. Of course, compensation for such “goods” as health risk is enigmatic since the economic impacts of morbidity are difficult to
quantify, and there may be a tendency for affected parties to overstate damages (Kunreuther et al., 1987). However, avenues for compensation could be developed through reviews of past experience and community focus groups.

The "fad" variable is probably not policy relevant; it is not a prudent course to convince citizens that recycling is a short run phenomenon merely to increase the probability of facility siting success. However, this finding does indicate that communities which are especially supportive of and active in recycling will be more likely to exhibit NIMBY beliefs. While respondents were significantly more likely to accept a community recycling facility than a landfill, support for recycling facilities was not overwhelming, indicating that NIMBY beliefs could pose an impediment to recycling.

The model, as constructed for this sample, is more successful in predicting YIMBY than NIMBY beliefs. While about three in five NIMBYs could be correctly classified, our results indicate that NIMBYs are not a homogenous group; clearly, factors beyond those of our model need to be examined. Of particular note was our ability to pool the data from the three towns. While the towns differed substantially in solid waste management practices, populations, and income levels, these differences did not affect overall tendencies toward NIMBY beliefs. This would seem to further confound any attempt to characterize a "typical" NIMBYist.

Given that only about a third of respondents indicated NIMBY beliefs, how is it that municipal solid waste management facilities are so difficult to site? First, these respondents may be joined in their resistance efforts by those who oppose such facilities anywhere—those who would argue "in NOBODY's back yard"—which would increase the percentage of those opposed to nearly 50 percent in this sample. Second, as has been found in previous work (O'Hare et al., 1983), those opposed may well be much more vocal in their opposition than those offering tacit support. In economic terms, the transactions costs (of actively expressing support) to those who benefit from the facility outweigh the benefits they would gain from successful siting, while for NIMBYists the benefits (in terms of avoided costs) of halting the siting outweigh their own transactions costs of demonstration, litigation, etc.

Our study could not determine whether these results would obtain in other communities, states, or regions. To draw definitive conclusions, our sample would have to be examined more closely for its representativeness. Still, the results of this model suggest that subsequent research with different groups would shed further light on this vexing problem.
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THE CHANGING SEMANTICS OF A COMMUNITY ECONOMIC DEVELOPMENT STRATEGY: GROWTH POLE VS. INDUSTRIAL TARGETING CONCEPTS

By Frank Akpadock

ABSTRACT

In the past, economic development planning was a lexicon associated with developing countries. On a global scale today, economic development planning refers to a strategic long-term approach to the problems of economically lagging communities, problems resulting from plant closing, stagflation, capital disinvestment, massive unemployment, and sometimes uneven economic development within the same geographical area. In the late 1960s and early 1970s, the first wave of community economic development policy evolved based on “growth pole/development nuclei” associated with smoke-stack-chasing industrial recruitment. In the 1980s and 1990s, the second wave policy instituted an “industrial targeting” strategy. This paper examines the reasons for the policy shift, explains the differences between the two concepts, and finally describes how the industrial targeting process was designed for an area comprising four counties in Northeastern Ohio.

INTRODUCTION

From a broad perspective, most definitions of community contain some reference to a group of people in a physical setting associated with geographic, political, and social boundaries and with discernible communication linkages and/or commonality (Shaffer, 1989; Clark, 1973; Koneya, 1975). There are virtually five approaches to the study of a community (Sanders, 1966), viz: ethnographic, (community as a way of life); qualitative (as a place to live); sociological (as a social system); ecological (as a spatial unit); and economical (as a resource base). Of these five areas, this study emphasizes the economic aspect.

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of community development, which Shapero defines as "the ability to respond to changes in the environment effectively, the ability and willingness to experiment and innovate, and the ability, desire, and power to begin and carry through useful projects" (1981, p. 26).

In the past, economic development planning was a concept associated with Third World development planning programs. Henderson et al. (1980) define it as "policies towards rebuilding the economies of distressed regions, and making them more manageable, the governing and growth of new areas. It is a long-term process of organizing capital, labor, and political resources to stabilize local economies, and to promote the well-being of individuals and communities." On a global scale today, among both developed and developing countries, economic development planning refers to an approach aimed at solving the problems of economically distressed communities resulting from aging infrastructures, stagflation, capital disinvestment, structural unemployment, poverty, plant closings, and sometimes uneven economic growth within the same geographical area.

Here in the U.S., the far-reaching economic changes of the past four or five decades brought about phenomenal structural and socioeconomic shifts (capital and jobs) from the central cities to the suburbs, and in the last two decades, from the industrial heartlands of the northeast and midwest (the so-called Rustbelt) to the former rural, peripheral areas of the south and west (the so-called Sunbelt). Jacobs suggests that these changes were the result of a "drought time of failed development schemes." She says, "The country's manufacturing economy has gradually but steadily been eroding, and much of what remains has been slipping into technological backwardness relative to industry in Japan, and the more vigorous parts of Europe" (1984, pp. 5-6).

Other researchers attribute the changes to the onset of the Third Industrial Revolution, based on information processing, electronics, bioengineering, capital mobility, and changes in the product cycle. Still others explain the shifts as resulting from global economic forces affected by international supply and demand, a new world economic order, and other factors (Bergman, 1986; Fosler, 1991; Drucker 1991; Plosila, 1991; Ross & Friedman, 1991; Redwood, 1988).

In an attempt to control economic and population shifts in the 1960s and 1970s, community economic development policy became focused on "industrial recruitment" generally characterized as "smokestack chasing." Communities in search of economic growth attempted to convince growth industries from other areas to relocate their branch plants locally with incentives such as tax abatements, financial capital assistance, union-free labor, industry-specific regu-

The locations of these growth industries were designated as “growth poles,” “development nuclei,” or “growth centers.” The central theme behind these names was to explain and/or justify the spatial capacity and structural economic change inherent in the model (Thomas, 1972; Mosley, 1974; Alonso & Medrich, 1972; Jacobs, 1984; Nichols, 1969). The drive for growth pole policy gains support from findings that “In the 1960’s, the notion of growth pole and growth center gained rapid and impressive acceptance by governments at various levels in many parts of the world as a tool of economic and social transformation at the regional scale” (1972, p. 75). However, in the 1980s and 1990s, the paradigm has shifted to “industrial targeting.” What are the differences between the two concepts and the reasons for the shift?

This paper will first examine the growth pole policy that marks the birth of the first wave of community economic policy. Next, industrial targeting policy, which marks the birth of the second wave, will be analyzed and compared with the first wave. Finally, the paper will examine the implications of the industrial targeting process for local economic practitioners as a learning experience in terms of how the program was designed in the communities of Mahoning, Trumbull, Columbiana, and Ashtabula Counties in Northeastern Ohio.

THE FIRST WAVE: THE GROWTH POLE POLICY

The growth pole policy, or “pole de croissance,” was first introduced by Francois Perroux (1955). The theory is based on the idea that when a large-scale lead (propulsive) industry is located in an area, such a lead industry is capable of inducing further development of economic activities in the region through its scale of production (internal economies) and/or by inducing the growth of other industries through agglomeration economies (Hermansen, 1972). Thomas (1972) thought the propulsive lead industry would consist of a technological linkage system which would foster a dynamic change, so that as the lead sector expands, resulting scale economies would finally expand its outputs and the outputs of other linked industries. Through this snowball process, it was assumed, impulses would be transmitted throughout the economy through backward and forward input/output linkages and/or through vertical and horizontal interactions.

Thomas also felt that inter-industry structural linkages would change the levels of demand for regional products and the mix of industrial output, resulting in increased income. Increased income levels would
create a propensity for increased consumption of goods and services, thereby creating a multiplier effect that would facilitate the development of more areas for the production of goods and services in a successive arithmetical progression.

The whole process of interlinkages constitutes what Kaldor (1967) characterized as a “growth process” or chain reaction, the extent of which is controlled by demand elasticities and supply constraints prevailing in the economic system. Myrdal (1957) referred to the growth process as a phenomenon of “circular and cumulative causation,” implying that growth is followed by growth multipliers. Samuelson (1939) saw the rounds of economic growth as a process of multiplier-accelerator interactions.

**The Structural Interaction Process of a Growth Pole Concept**

The structural interaction described above is said to be perpetuated by two sets of opposing forces, namely the “spread or trickle-down” process, and the “backwash or polarization” effect, proposed respectively by Myrdal (1957), and Hirschman (1957). Spread/trickle-down describes the process whereby economic activities at the growth center spill over to the surrounding/peripheral economic areas. The backwash/polarization effect, on the other hand, implies a process whereby economic activities from the periphery are drawn to the center.

**The Growth Pole Strategy as a Regional Economic Panacea**

The whole process of forward and backward linkages constituting the trickle-down phenomenon is depicted by Beyers (1974). He described the interactions as composed of two regions, in which is located a propulsive lead industry, surrounded by interacting economic regions. As the growth pole process becomes operational, the expansion of output from the lead sector affects different economic activities in the area, producing direct, indirect, and induced effects in the economy. As the level of regional income (value added) rises, the overall personal income also rises, which, in turn, stimulates increased consumption of local goods and services because of the available disposable income. This process will lead to further changes in the composition of regional output, reinforcing the trickle-down process interregionally.

These theoretical explanations of the growth pole concept were especially instrumental in the adoption of a growth pole policy all over the world in the 1960s through the 1970s. Nations as econom-
ically diverse as the U.S. (Berry, 1969), Sweden (Bylund, 1972), USSR (Probst, 1964), Canada (Luttrell, 1972), Tanzania (Pioro, 1972), India (Misra, 1972), and France (DiTella, 1972), adopted the growth pole model as an "economic panacea" during the first wave of economic policy experimentation.

Problems of the Growth Pole and Policy Shift

During the period of the first wave growth pole policy, many industrial corporations engaged in standardized mass production for the uncontested U.S. domestic markets. American exports overseas were virtually free of major competition from other industrialized nations. U.S. corporations adopted a laissez-faire approach to major investments in capital improvements associated with plant renovations and product differentiation, as well as research and development, in the face of a thriving U.S. economy.

In many cases, the selection of growth pole industries was politically influenced. Consequently, such decisions often ignored aspects of compatibility of the selected industry to the resources of the community in question, and/or its overall comparative advantage. Richardson (1978) argued that one of the problems of the growth pole policy arose from indiscriminate application of the policy in a variety of settings ranging from the rural service center with a threshold population of a few thousand to a major "countermagnet" of half a million or more with or without adequate supporting infrastructure. Thomas (1972) felt that the paucity of information by growth pole advocates, as it related to processes of growth and/or structural change over time, did contribute enormously to the failure of growth pole policy as an economic revival tool in the lagging regions of many countries.

The late 1970s and early 1980s, saw a wave of growth pole industry closings and massive layoffs associated with stagflation. Highly mobile capital facilitated decentralization of economic activities to advanced countries and/or developing countries with available cheap labor. Declining productivity and global market competition made it clear that the U.S. industrial corporations could no longer operate their plants with "business-as-usual" attitudes in the face of global economic competition. In effect, the U.S. domestic markets had such foreign competitors as Taiwan, Japan, and Western Europe in search of a share of the market niche (Gordon, 1988).

Fundamentally, the growth pole industries, with their routinization and mass product standardization trends, were caught off guard with the fast pace of the changing new world market order, and, conse-
quently, were not prepared to adjust quickly enough. Communities that relied on these growth pole industries for sparks of economic growth were greatly devastated with job losses, declining population, and the lowering of their tax bases when industries closed their doors. Communities from the midwest and northeast regions were hit the hardest. Economic practitioners from these communities and elsewhere decided it was time for a change in economic development planning strategy if their communities were to survive and remain competitive with the rest of the country and the world.

In the early 1980s, state and local economic planners embarked upon an economic development strategy geared towards innovative industrial programs that would not only diversify their economy, but also have build-in flexibility to resist both cyclical and structural economic upheavals. This new economic policy, called the second wave, embodied “industrial targeting” strategy and “retention and expansion” (R&E) programs. According to Blakely (1991), people had wondered whether the second wave policy was a reformulation of the “failed trickle-down” policies of the past, or, if indeed, it was possible “to generate more work and more good jobs in a technology-based economy.” Although this paper cannot answer this question with any degree of certainty, the differences between the first and second waves can be analyzed accordingly.

It should be emphasized that not all growth pole industries were uprooted by the whirlwind of global economic change, and those that survived have embarked upon intensive restructuring as well as product differentiation in their operations. However, the lesson learned by the affected communities during the economic transition is that it is necessary to diversify. It is a risky proposition for any community to carry all its economic eggs in one basket—the growth pole industry.

THE SECOND WAVE: INDUSTRIAL TARGETING POLICY

As has already been indicated, the second wave of economic development policy embodied principally industrial targeting and R&E programs. Siegel et al. (1987) define industrial targeting as an economic development approach aimed at strengthening specific industries vital to a community’s economic growth. Industrial targeting programs involve the recruitment of technologically-oriented industries. The recruitment of the so-called technologically strong “foot-loose” industries is meant to provide a buffer for the community’s economic growth against the vicissitudes of cyclical swings in the economy. Malecki argues that the recruitment of technologically strong industries makes good economic sense in the face of changing
technology. He writes, "Although employment in such sectors will not be large, it is likely to be a relatively reliable economic base, both locally and nationally" (1986, p. 136).

Siegel et al. (1987) reinforce this view, stating that "a stable, healthy (community's) economy can exist only through the presence of a set of strong traded industries, ones which are competitive in markets outside the region. These industries are the engines of regional income generation." Still others argue that in a rapidly changing world of technological development and a highly competitive international economy, industries equipped with the capacity for growth and technological change are the ones that can survive and contribute to the regional economy. Gainer and Morrissey (1989) observe that the speed and scope of today's technological change can virtually make products and processes obsolete overnight, both quantitatively and qualitatively.

While recruiting technologically-oriented industries on the one hand, state and local economic practitioners also felt duty-bound to try to develop and expand the existing industrial bases through R&E programs in order to establish economic diversification among prospective local growth industries. Based on this "homegrown" philosophy, the R&E programs offered small- and medium-sized enterprises a variety of financial assistantships. These assistantships included export information processing, tax breaks, technology transfer, employee training, etc. in order to make them technologically capable of competition. Pulver (1988) emphasized the grave need for each economic community to encourage the existence of a sound business climate in order to facilitate both local economic growth and the recruitment of high-tech industries into their areas.

Although there are inherent weaknesses in the so-called Keynesian welfare-state approach associated with the second wave programs, the policy is held in high esteem by many second wave adherents, including Ross and Friedman, who remarked:

> It's not that second wave adherents have abandoned industrial recruitment, they still market themselves aggressively to outside investors. But they do so knowing that foot-loose plants will produce only marginal numbers of new jobs. And they recruit with the knowledge that cost is no longer the strongest magnet for new investment—rather it is an economic environment rich with the human, technological, financial, and infrastructural resources that support existing firms and entrepreneurship. (1991, p. 128)

It is no exaggeration to say that economic development in the last decade has been irrevocably altered along the lines of the survival-of-the-fittest paradigm. The forces of international competition are
now in complete control of local industrialization dynamics. Indeed, the paradoxical effect of the poised technological institutional changes is a clarion "wake up call" to the private and public sectors (entrepreneurs and economic planners at the national, state, and local levels) that were are living in a changing global marketplace in which our economic system must be competitively at par with the rest of the world. Second wave philosophy says this can be achieved if we mobilize our resources, sharpen our skills and thought patterns, and adapt to the new ways of doing business through technological innovations. Second wave policy seems to be embraced by many community/regional economic practitioners just because of the spirit of industrial restructuring and innovation inherent in the approach.

**Comparison of Growth Pole and Industrial Targeting Policies**

In terms of similarities, both policies are based on the supply-side economics of fiscal intervention at the local and state levels. In particular, the selection of growth pole industries was largely influenced by the "art of political decision-making" as opposed to "rational choice," based on empirical studies associated with the comparative advantage and the resource base of the community in question. Industrial targeting programs, on the other hand, are based on empirical analysis that equates the prospective industrial recruits with the resource base as well as matching the industry with the competitive, comparative advantage of the community concerned before action is taken. In this way, mismatch of a growth industry with the resource base of a community is minimized if not totally avoided. Both industrial models are export-based and, hence, have the potential for influencing trade exchanges in both domestic and foreign markets.

During the first wave policy, growth pole industry was the only engine that drove the local economy associated with the establishment of linkages and/or vertical and horizontal interactions with other industries in the area. However, based on its characteristic standardized mass production and process routinization, growth pole industrial enclaves were susceptible to major cyclical and/or structural shocks in the national or international economy without strong built-in mechanisms for resistance. This inherent weakness was responsible for virtually wiping out most communities' economic bases when growth pole industries closed their doors in those communities. This has been the experience of major steel-producing regions of the northeast and midwest in the late 1970s and early 1980s.

In contrast, the second wave embodied industrial recruitment targeted to technologically capable industries which could compete both
in the domestic and international market arenas. In particular, this group of industries could adjust easily to major structural economic shocks nationally with minimal repercussions on the local economy in which they are located. The second wave also included R&E programs that fostered diversification of the economic activities of an area and made each community clearly aware of the need to improve its "business climate" in order to attract new industries.

Industrial Targeting Process For Four Ohio Counties

The people of the four-county area (see Figure 1), like other communities in the U.S., embarked upon industrial targeting as a tool aimed at mitigating the continuous erosion of their economic base and population flight to other parts of the country. The following pages describe the process through which industrial targeting was pursued for this particular area.

There are two phases in the industrial targeting process. The first phase deals with the analysis of sectorally growing industries, and other industries in the region that have the potential for growth. This phase analyzes sectorally pooled growth industries in terms of employment performances over a period of time, the number of branch plants established, the value of an industry's shipment, and the annual growth rate in comparison with the state and the nation. The appli-
cation of any of the economic tools of analysis such as the location quotient, shift-share analysis, or minimum requirements approach will amplify the selection of local growth industries.

The second phase requires the identification of prospective target industries for recruitment from a national pool of growing industries. This requires a phased process of judicious elimination of incompatible industries in order to select as close a match as possible, i.e., those industries that are compatible with the regional resources and growth trends. Proposed corporate sites must meet national and/or traditional standards as well as industry-specific characteristics. Also importantly, the analysis must include information on the industry's employment trends, measures of aggressiveness in capital spending, and annual growth rates among other variables.

Once a decision is made about recruiting a particular industry, that industry, when located, should benefit from the regional resources and blend in with the regional/local industries in order to benefit from the existing agglomeration economies. This will facilitate the availability of capital, and minimize regional/local economic leakage due to imports.

This two-phase evaluation guided the process through which an industrial targeting program was designed for Mahoning, Trumbull, Columbiana, and Ashtabula Counties in Northeastern Ohio.

Overview of the Study Approach

The analysis was begun by defining the study objective, then by determining the methodology that defines the step-by-step procedure for industrial targeting.

**Study Objective.** The main objective of this study is to target the best compatible industries in which the region has the best competitive, comparative advantage vis-a-vis other regions of its category.

**Methodology.** Briefly, the methodology describes the procedure through which an industrial targeting program was designed for the four-county area that finally led to the selection of the growth industries targeted for recruitment. The study started with the general review of the factors of industrial location. The general growth performance screening of the sectors was carried out by comparing the regional industrial growth sectors with those of the state and the nation through the application of a selected tool of economic analysis. The final selection of the 15 growth industries was made in relationship to the industries' future potential for technological growth and change, and the region's overall comparative advantage.

The following is a summary of the selected areas by which the
industrial targeting process was undertaken for the four-county area in Northeastern Ohio.

Summary of Analyses of Selected Areas in Industrial Targeting for the Region

1. Review the Factors of Industrial Location. In reviewing the factors of industrial location generally—and the four-county area in particular—the focus of analysis was on the transportation system, market for both input and finished products, population and median income, labor, raw materials, research institutions nearby, industrial land, recreational facilities, and state tax systems. These factors among others, constitute what Friedman and Darragh (1988) characterize as the "elements" of the business climate of an area.

1a. Transportation Systems. The transportation system of an area is not limited to roadways, pipelines, subways, and waterways, but includes the presence of the airway systems for passengers and freight including just-in-time delivery operations.

The Youngstown Municipal Airport system is the principal airport that serves the regional residents and the business communities. However, the Cleveland Hopkins and Pittsburgh International Airports—a few hours' drive from the four-county area—provide supplementary air transportation needs for the area's residents and business community. The nation's leading railroad systems, the Conrail and Chessie rail systems, also carry out freight transportation for the business community.

1b. Market. In terms of market availability, the central location of the region gives it the advantage of easy access to customers in Pittsburgh, New York, Philadelphia, Baltimore, and Washington to the east and southeast quadrants; Chicago and Indianapolis to the west and southwest quadrants; Buffalo, Toronto, Rochester, Windsor, and Milwaukee to the north and northeast quadrants; and Columbia, Charlotte, Cincinnati, Nashville, and Louisville to the south and southwest quadrants. In view of these major surrounding market areas, the region can best be described as a "policentric market hub" around which the wheels of large metropolitan market areas spin (see Figure 2).

1c. Threshold Population and Median Income. The threshold population and median income of an area constitute an integral part of the industrial location decision by entrepreneurs. Entrepreneurs factor in the "demand dimensions" for their finished products in their decision-making in terms of the quantity and quality of the population of an area. Population quality of an area is associated with
the median income of the area’s residents. The median income is leveraged on the marginal propensity for the residents to consume, and expresses the relationship between increments in their income and the propensity to increase consumption out of that increment.

Based on this understanding, the total population of the four-county area and median income were calculated based on the 1990 Census. The quantity and quality of the area’s population were found to be suitable for any kind of business operation.

1d. Labor. Labor is a very important factor in industrial location decision-making, and the amount and types of labor required for business operations vary from firm to firm. The distinctive requirements in terms of skilled, semi-skilled and unskilled labor force available in a particular area can become the determining factor in industrial site selection. The relocation of many U.S. manufacturing bases to such countries as Mexico, South Korea, Taiwan, and Japan, among others, testify to the importance of labor force as a factor in industrial location decision-making.

In the four-county study area, there was evidence of the availability of skilled, semi-skilled, and unskilled labor force for any kind of
business operation. In particular, the Ohio Bureau of Employment Services (OBES) provides a network of public employment offices where prospective employers seeking employees of different skills are referred. These services, which include recruiting, testing, and interviewing, are conducted by two arms of OBES: the Department of Development, Business Development Division; and the Department of Education, Vocational Division.

Other factors pertaining to industrial location factors, such as raw materials, taxes, recreation facilities, institutions of higher learning and cost of living were carefully analyzed and documented as a marketing tool to be forwarded to the chief executive officers (CEOs) of the targeted industries. A comprehensive list of the more general factors of industrial location could be obtained from Smith (1981), Hoover (1937), Isard (1960, 1990), Harris & Hopkins (1974), and Miller (1977).

Industrial Growth Performance Screening

During the analysis of industrial growth performance for the region, the study utilized such variables as growth in employment, the value of annual shipments, assets and liabilities, and the number of branch plant establishments. These variables were used to further probe the productivity and growth of each industrial sector as a means of separating the growth from the non-growth sectors.

It was also necessary to examine the list of the nation’s fastest growing four-digit industries in order to compare the regional growth sectors. Another screening technique used was the evaluation of the regional growth sectors with regards to their annual percent increase/decrease in outputs as well as their capacity utilization. The analysis helped in the assessment of the stability of sectoral production over time. At the end of the analysis, the growth industrial sectors from each of the countries were selected for further analyses.

Additional Tools of Economic Analysis in Industrial Growth Performance Screening

To further compare the growth performance of an area with national growth sectors, one can apply any of the tools of economic analyses, including location quotient, shift-share analysis, minimum requirements approach or factor analysis. The application of any analytical tool depends on the availability of data as well as the cost and time constraints involved in the analysis. For this study, the location quotient analysis was applied. Use of the location quotient has been acclaimed by Isserman (1977). Mayer and Pleeter (1975), and
Table 1. Growth Analysis: 1983–1988 Employment, Mahoning County, Ohio

<table>
<thead>
<tr>
<th>SIC</th>
<th>Industry</th>
<th>1983</th>
<th>1988</th>
<th>State % Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>239</td>
<td>Misc. Fabricated Textile Products</td>
<td>5,860</td>
<td>6,837</td>
<td>16.67</td>
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<tr>
<td>24</td>
<td>Lumber &amp; Wood Products</td>
<td>11,678</td>
<td>18,807</td>
<td>61.05</td>
</tr>
<tr>
<td>30</td>
<td>Rubber &amp; Misc. Plastics</td>
<td>66,572</td>
<td>89,918</td>
<td>35.07</td>
</tr>
<tr>
<td>307</td>
<td>Misc. Plastic Products</td>
<td>39,044</td>
<td>58,517</td>
<td>49.87</td>
</tr>
<tr>
<td>33</td>
<td>Primary Metal Industry</td>
<td>86,796</td>
<td>85,263</td>
<td>-1.77</td>
</tr>
<tr>
<td>34</td>
<td>Fabricated Metal Products</td>
<td>125,498</td>
<td>140,881</td>
<td>12.26</td>
</tr>
<tr>
<td>344</td>
<td>Fabricated Structural Metals</td>
<td>23,403</td>
<td>26,807</td>
<td>14.55</td>
</tr>
<tr>
<td>359</td>
<td>Industrial Machinery, NEC</td>
<td>16,079</td>
<td>24,110</td>
<td>49.95</td>
</tr>
<tr>
<td>48</td>
<td>Communication</td>
<td>50,581</td>
<td>44,386</td>
<td>-12.25</td>
</tr>
<tr>
<td>49</td>
<td>Electric, Gas &amp; Sanitary Services</td>
<td>39,421</td>
<td>42,533</td>
<td>7.89</td>
</tr>
<tr>
<td>50</td>
<td>Wholesale Trade-Durable Goods</td>
<td>129,283</td>
<td>157,762</td>
<td>22.03</td>
</tr>
<tr>
<td>508</td>
<td>Machinery, Equipment &amp; Supplies</td>
<td>50,593</td>
<td>36,842</td>
<td>-27.18</td>
</tr>
<tr>
<td>509</td>
<td>Misc. Durable Goods</td>
<td>7,678</td>
<td>12,782</td>
<td>66.48</td>
</tr>
<tr>
<td>591</td>
<td>Drug Stores &amp; Proprietary Stores</td>
<td>22,057</td>
<td>26,249</td>
<td>19.01</td>
</tr>
<tr>
<td>65</td>
<td>Real Estate</td>
<td>35,343</td>
<td>47,182</td>
<td>33.50</td>
</tr>
<tr>
<td>70</td>
<td>Hotels &amp; Other Lodging Places</td>
<td>29,581</td>
<td>33,980</td>
<td>14.87</td>
</tr>
<tr>
<td>73</td>
<td>Business Services</td>
<td>126,323</td>
<td>175,228</td>
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<tr>
<td>757</td>
<td>Computer &amp; Data Processing Services</td>
<td>11,284</td>
<td>24,981</td>
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<tr>
<td>80</td>
<td>Health Services</td>
<td>320,224</td>
<td>378,630</td>
<td>18.24</td>
</tr>
</tbody>
</table>

Williamson (1975) as one of the most popular statistical devices used to delineate the degree of concentration of a given industrial sector in a particular locale.

As an analytical device, the location quotient's principal weaknesses are associated with variation in values due to data aggregation and cross-hauling factors. Its strengths lie particularly in the use of easily quantifiable employment data which are consistent across regions over time. It assumes that an industry exports if its quotient is greater than one. If the quotient is equal to one, it assumes a measure of self-sufficiency, in that a similar proportion of employment in industry $i$ in the region is equal to that of industry $i$ in the nation. However, if the quotient is less than one, the region is said to be importing in that sector.

Employment growth among selected sectors in the four county area was determined through the location quotient application. The analysis established not only the concentration of a particular industrial sector in the area, but also the employment growth changes over time in the four-county area. (See Table 1 for employment growth analysis for one of the counties in the area.)
Table 1. Extended.

<table>
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<tbody>
<tr>
<td></td>
<td>1983</td>
<td>1988</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>172</td>
<td>290</td>
<td>171,086</td>
<td>195,050</td>
<td>14.01</td>
<td>5.5762</td>
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<td>117</td>
<td>184</td>
<td>591,549</td>
<td>712,498</td>
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<td>426</td>
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<td>869,856</td>
<td>30.99</td>
<td>0.0998</td>
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<tr>
<td>214</td>
<td>259</td>
<td>467,982</td>
<td>629,099</td>
<td>34.43</td>
<td>0.5713</td>
</tr>
<tr>
<td>3,364</td>
<td>1,759</td>
<td>753,411</td>
<td>725,201</td>
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<td>36.6062</td>
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<td>2,157</td>
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<td>2.3064</td>
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<tr>
<td>980</td>
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<td>377,647</td>
<td>409,960</td>
<td>8.56</td>
<td>3.4224</td>
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<td>1,584,565</td>
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<td>2,015</td>
<td>2,773</td>
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<td>11,698</td>
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<td>5,980,371</td>
<td>7,221,951</td>
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</table>

Another form of growth analysis conducted was associated with changes in business establishments over the study period. Again, comparisons were made between the regional growth sectors, the state, and the nation. (See Table 2 for establishment analysis for one of the counties in the area.)

A careful examination was made of all the employment area establishment growth sectors for each county, taking into consideration their past and the prospects for growth in the future, vis-a-vis the state, the nation, and the world; the prospects of resisting structural and cyclical economic changes; and the generation of spin-off industries. Fifteen four-digit industrial sectors were selected for recruitment for regional economic empowerment based on the regional growth sectors:

1. SIC 3679, Electronic Components, Not Elsewhere Classified (NEC)
2. SIC 3541, Machine Tools, Metal Cutting Types
3. SIC 3531, Construction Machinery
4. SIC 2834, Pharmaceutical Preparations
5. SIC 2833, Medicinals and Botanicals
6. SIC 3069, Fabricated Rubber Products, NEC
7. SIC 2821, Plastic Materials, Synthetic Resins, and Non-vulcanized Elastomers
Table 2. Establishment Growth Analysis: 1983-1988, Trumbull County, Ohio

<table>
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<tr>
<th>SIC</th>
<th>Industry</th>
<th>State Establishments</th>
<th>State Level</th>
<th>State Change</th>
<th>State %</th>
<th>Trumbull Establishments</th>
<th>Trumbull Level</th>
<th>Trumbull Change</th>
<th>Trumbull %</th>
<th>U.S. Establishments</th>
<th>U.S. Level</th>
<th>U.S. % Change</th>
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<tr>
<td>24</td>
<td>Lumber &amp; Wood Products</td>
<td>743 855</td>
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<td>14</td>
<td>16</td>
<td>2</td>
<td>14.29</td>
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<td>32,860</td>
<td>1,026</td>
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<td>Rubber &amp; Misc. Plastics</td>
<td>932 1,116</td>
<td>184</td>
<td>19.74</td>
<td>11</td>
<td>17</td>
<td>6</td>
<td>54.55</td>
<td>13,058</td>
<td>14,652</td>
<td>1,594</td>
<td>12.23</td>
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<td>Primary Metal Industries</td>
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<td>-2.84</td>
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<td>26</td>
<td>2</td>
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<td>6,715</td>
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<td>-5.01</td>
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<tr>
<td>351</td>
<td>Blast Furnace &amp; Basic Steel</td>
<td>121 125</td>
<td>5</td>
<td>4.13</td>
<td>13</td>
<td>13</td>
<td>0</td>
<td>0.00</td>
<td>1,254</td>
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<td>-11</td>
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<tr>
<td>335</td>
<td>Nonferrous Rolling &amp; Draining</td>
<td>53 62</td>
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<td>4</td>
<td>6</td>
<td>2</td>
<td>50.00</td>
<td>973</td>
<td>1,056</td>
<td>83</td>
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<tr>
<td>344</td>
<td>Fabricated Structural Metal Products</td>
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<td>-12.50</td>
<td>12,187</td>
<td>12,260</td>
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<tr>
<td>347</td>
<td>Metal Services, NEC</td>
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<td>6</td>
<td>2</td>
<td>50.00</td>
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<td>10,847</td>
<td>11,176</td>
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<td>359</td>
<td>Machinery except electrical, NEC</td>
<td>1,405 1,496</td>
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<td>13</td>
<td>18</td>
<td>5</td>
<td>38.46</td>
<td>20,904</td>
<td>21,440</td>
<td>536</td>
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<tr>
<td>36</td>
<td>Electric &amp; Electronic Equipment</td>
<td>671 632</td>
<td>-39</td>
<td>-5.81</td>
<td>7</td>
<td>10</td>
<td>3</td>
<td>42.86</td>
<td>16,888</td>
<td>16,110</td>
<td>22</td>
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<td>Transportation Services</td>
<td>773 1,118</td>
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<td>9</td>
<td>69.23</td>
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<td>39,004</td>
<td>9,005</td>
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<tr>
<td>50</td>
<td>Wholesale Trade-Durable Goods</td>
<td>11,650 12,756</td>
<td>1,106</td>
<td>9.49</td>
<td>159</td>
<td>178</td>
<td>19</td>
<td>11.95</td>
<td>263,140</td>
<td>289,967</td>
<td>26,827</td>
<td>10.19</td>
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<tr>
<td>509</td>
<td>Misc. Durable Goods</td>
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<td>347</td>
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<td>20</td>
<td>22</td>
<td>12</td>
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<td>42,387</td>
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<tr>
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<td>104</td>
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<td>1.96</td>
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<td>250,527</td>
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<tr>
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<td>476</td>
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<td>414</td>
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<td>17</td>
<td>59.13</td>
<td>76,760</td>
<td>104,757</td>
<td>27,997</td>
<td>36.47</td>
</tr>
</tbody>
</table>
Implication for the Local Economic Practitioners

The above discussion is a brief overview of the methodology by which the industrial targeting process was pursued for the four-county area. The complete study procedure is shown below. However, the selection of the target industries is the first phase in an industrial recruitment program. The next phase is the development of a strategic marketing plan and other internal organizations to bring about plan implementation which is beyond the scope of this study.

In pursuing an industrial targeting program, the following procedure should be considered:

1. Review the factors of industrial location, paying particular attention to the general and industry-specific factors.
2. Analyze and compare the general industrial growth sectors of each county with
that of the state through the application of any selected tool of economic analysis (location quotient, shift-share analysis, minimum requirements approach, etc.).

3. Conduct industrial growth performance screening using such variables as:
   a. employment performance (full number of part-time and hourly employees, pay rates, income, and fringe benefits, etc.);
   b. Number of establishments (number of births and deaths, and annual increase/decrease in branch establishments);
   c. Value of annual shipment (sales income, price earning ratio, assets, etc.);
   d. Annual growth rate and value added (real and projected trends);
   e. Their quantitative comparison with the state and national trends.

4. Conduct a phased process of elimination of the nongrowth industries.

5. Select semi-final candidate industries.

6. Compile a final list of the local growth sectors.

7. Match the local selected growth sectors with the national growth trends.

8. Select the target industrial sectors for recruitment from the national pool based on the regional growth sectors. The prospective industrial recruits should blend in with the resource base of the communities as much as possible in order to minimize leakages due to imports during operation.

The General Industrial Growth Sectors

The national industrial growth sectors could be compared using such data sources as the U.S. Department, Bureau of Labor Statistics; the U.S. Department of Commerce; Data Sources, Inc.; etc. The local growth sectors could be obtained from a number of local as well as state sources, but in particular from the County Business Patterns: 1989. In order to compare the growth trends between the national and local sectors, one can use any of the economic tools of analysis aforementioned.

In conducting community industrial performance screening local practitioners should be diligent to factor in those variables in step 3 of the targeting procure. For example, the evaluation of the growth rate of each sector should be compared to those of the Gross National Product (GNP) in real and projected trends. Analysis of the value of annual shipments is an essential, integral factor of the performance screening exercise in order to determine the annual sales income, price/earnings ratio (PER), total assets, gross billing or operating revenues. These factors play leading roles in the overall assessment of a given industry and its stability over time.

Through this process, it becomes feasible to actually separate the local growth from the non-growth sectors. The final selection of the local growth sectors becomes a litmus test for the selection of the prospective (candidate) industrial sectors for recruitment. The selected target industries for recruitment must also be screened for their growth performance much as the local growth sectors. In addition, their evaluation must include their capacity to resist systematic and cyclical economic upheavals as well as their suitability to the resources of the community in question.
CONCLUSION

It is inappropriate for some researchers to suggest that programs implemented on the second wave will be abandoned in favor of the emerging third wave associated with public-private partnership interactions. Although the first wave policy of the smokestack chasing program associated with growth pole industrial enclaves was weak, due to standardized mass production and process routinization of growth pole industries and their inability to resist massive structural and cyclical changes in the economy, they fulfilled their functions at the time as sources of propagation of economic growth waves. However, based on the changing technology and global competition, the first wave has gradually given way to the second wave policy associated with a more aggressive technological industrial recruitment, plant restructuring, R&E programs for economic diversification and manpower training. The emerging third wave will be an expansion and improvement on the second wave, not an abandonment. In a speech to state legislators, Scott Fosler, Vice President of the Committee for Economic Development, declared:

The transition from the first to second wave was largely a change in policy: states expanded their focus beyond industrial recruitment to encompass the internal development of the entire state economy. The transition from the second to the third wave, by contrast, involves important changes in organization: policy continues to focus on internal development, but new organizational approaches are used to pursue that objective (Fosler, 1989, p. 26).

Therefore, local economic development practitioners should continue to push hard on those programs that they believe will develop and improve their economic base (in association with industrial targeting strategy and retention and expansion programs) by providing their jurisdictions with the cutting-edge economic planning strategies, leadership, accountability, and management know-how that will counteract structural and cyclical swings in the national and/or international economy and stabilize their local economy. It is the local economy with a strong technological industrial base, diversified economy, and competent business climate that will not only be an economic laboratory for competing firms, but the one that will grow and expand into the 21st Century and beyond.

REFERENCES


Shapero, A. The Role of entrepreneurship in economic development at the less-than-national level. Pp. 25–35 in Robert, Friedman & Schweke (eds.), *Expanding the Opportunity to Produce*. Washington, DC: Corporation for Enterprise Development.


BOOK REVIEW


Since the nonmetropolitan migration turnaround of the 1970s, study of migration behavior has shifted from economic to other factors. As the title suggests, the analytical studies in this collection investigate the influence of various noneconomic determinants of migration in the United States. The significance of factors such as community involvement, family, recreation, and religion in influencing migration behavior are explored. The results are compelling and successfully show that reasons for moving extend well beyond economic explanations alone. This volume is a welcome addition to the literature on migration decision making.


Chapter 5 is a particularly noteworthy piece with public policy relevance ("Interstate Migration and Public Welfare: The Migration Decision Making of a Low Income Population," P. Voss et al.). There has been ongoing debate over the issue of states with high welfare benefits attracting low-income out-of-state migrants. Wisconsin is recognized as a state with relatively higher AFDC benefit levels and is argued by some to be a "welfare magnet." The study investigates the accuracy of this argument and finds that economic considerations are less important factors in the relocation of low-income residents than previous research suggests. Other factors, such as family and friends, and the perceived quality of life in Wisconsin emerge as significant "pull" factors. Followers of the issue will find the paper a much-needed addition to the literature on this topic.

Carol Stack and John Cromartie also provide an intriguing look at "The Journeys of Black Children: An Intergenerational Perspective" in the last chapter. It is a study of cyclical migration of black children within the United States, an area of research demographers and policy makers have not fully addressed. The limitations of census data have
made it difficult to accurately depict the importance of back-and-forth movement among black children in the United States. This paper discusses a distinct pattern of migration that many generations of black families have sustained. As family circumstances require, children move between rural and urban households within extended families frequently and cyclically.

The strength of this book is that it provides analyses of an interesting variety of explanations for migration behavior. Some readers may find the statistical evidence of certain studies weak, but not inconclusive. This book should serve as a useful resource and certainly encourage further research in this particular area of migration.

In total, this volume provides interesting accounts and new additions to the literature on noneconomic influences in migration. The diversity of topics reflects the complexity of migration behavior in our society, and the importance of noneconomic decision making. This collection of research will be valued by demographers and policy analysts as a timely and relevant book.

RACHEL WARREN

University of Minnesota
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Include on a separate page the article title and a summary of 100 to 150 words.

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Use footnotes in the text for substantive comments only, not for bibliographic references. Footnotes should be numbered consecutively and typed on a separate page after the text of the manuscript.

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